



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

**Volume 2 – Final Report**



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A Study of State Policies Covering the  
Early Care and Education Workforce**

**Volume 2**

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*Prepared for:*

U.S. Department of Education  
Office of Planning, Evaluation and Policy Development  
Policy and Program Studies Service

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Although we appreciate the assistance and support of these individuals, any errors in judgment or fact are the responsibility of the authors.



## Appendix A. Profiles of the Six Case Study States

### California

#### *Introduction and State Context*

California’s public higher education system consists of three discrete “segments”: California Community Colleges, the California State University system, and the University of California system. In 2010, the California State Legislature enacted the Student Transfer Achievement Reform Act (Senate Bill 1440 – Padilla), which mandated the creation of associate’s degree for transfer programs as a collaborative effort between California’s community colleges and California State Universities. Students who complete these degrees are guaranteed admission with junior standing into a university within California State University system, and they are given priority consideration when applying to specific bachelor’s degree programs that are related to their associate’s degree major (California Community Colleges Chancellor’s Office n.d.).

For the model curriculum that serves as the basis for all associate’s degree for transfer programs in ECE, California selected eight foundational ECE courses designed by the Early Childhood Curriculum Alignment Project, which started as a grass-roots effort among California community college faculty to create more consistency across two-year ECE programs. As of November 2016, 91 of the state’s 103 community colleges had officially aligned their ECE associate’s degree programs with Curriculum Alignment Project coursework (Curriculum Alignment Project 2016).

Additional background on the state policy context is given in Exhibit A1, including higher education, ECE, and teacher licensing policies and programs.

**Exhibit A1. Characteristics of California’s state policy context**

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State context	Description
<b>Higher education context</b>	
Higher education governance structure	Each higher education system has its own governing board, Chancellor’s Office, and Academic Senate; community college districts also have locally elected governing boards.
Number of higher education system(s)	3 (California Community Colleges, California State University, University of California)
Number, percentage of institutions granting ECE degrees	118, 81%
<b>ECE program context</b>	
State preschool program	Yes
Percentage of 4-year-olds served in early education programs	46%
Bachelor of arts requirements for early childhood educators	No
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	Credentials/permits: <ul style="list-style-type: none"> <li>• Certified Child Care Professional</li> <li>• Child Development Assistant Teacher Permit</li> <li>• Child Development Associate Teacher Permit</li> <li>• Child Development Teacher Permit</li> <li>• Child Development Master Teacher Permit</li> </ul> Certificates/endorsements: <ul style="list-style-type: none"> <li>• Multi-Subject Teaching Credential</li> <li>• Early Childhood Specialist Credential (can be added to base teaching credential)</li> <li>• Early Childhood Special Education (can be added to base special education or teaching credential)</li> </ul>
Administering entity	California Commission on Teacher Credentialing California Department of Education

**Exhibit reads:** California uses separate governing boards, Chancellor’s Offices, and Academic Senates for each higher education system as its state higher education governance structures.

Sources: State higher education websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015; state teacher credentialing agency websites, 2018.

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**Articulation Policy**

An overview of key state policies related to ECE articulation is provided in Exhibit A2.

**Exhibit A2. California articulation policies**

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Policy type	Status
Transfer associate’s degree	Yes
Guaranteed admission	Yes
Common general education requirements	Yes
Common course numbering	Yes
Credit for the CDA Credential	No
Alignment to NAEYC standards	No

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**Exhibit reads:** California has statewide policies regarding transfer associate’s degrees in ECE.

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

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*Transfer Associate’s Degree*

Created in response to the Student Transfer Achievement Reform Act (Senate Bill 1440), the associate’s degree for transfer is a two-year associate’s degree that is fully transferable to universities within the state’s California State University system. These degrees are intended to consist of no more than 60 credits of coursework in general education, major preparation, and electives, and they are designed to allow recipients to complete a bachelor’s degree in the same field within an additional 60 credits of coursework at a four-year IHE. To promote academic alignment, California adopted the Curriculum Alignment Project’s eight core ECE courses — a total of 24 units — as the model curriculum for all associate’s degrees for transfer in ECE.

Although the associate’s degree for transfer originated as a vehicle to facilitate transfer between community colleges and California State Universities, the University of California system announced in April 2018 that it was working with California community colleges to begin accepting associate’s degrees for transfer beginning in the 2019–20 school year (University of California 2018). Since 2015, the University of California system has used “transfer pathways” for its 21 most popular majors. These pathways guarantee that community college students who take a prescribed set of courses and meet certain grade point average requirements will be able to apply those courses toward the major at any University of California campus.

*Guaranteed Admission*

The associate’s degree for transfer also is known as a “degree with a guarantee” because it guarantees admission to a university within the California State University system, and it grants priority admission to specific majors for students who meet their California State University’s minimum eligibility requirements. In cases where specific California State University campuses or degree programs are oversubscribed or “impacted,” associate’s degree for transfer students receive an admission advantage but must meet additional criteria to be accepted (A Degree with a Guarantee n.d.).

*Common General Education Requirements*

The Intersegmental General Education Transfer Curriculum is a pattern of lower division general education requirements of 37 semester units or 49 quarter units that students complete at the community college and can transfer to the California State University or University of California for credit toward a bachelor’s degree. Intersegmental General Education Transfer Curriculum requirements include lower division coursework in English Communications, Mathematical Concepts and Quantitative Reasoning, Arts and Humanities, Social and Behavioral Sciences, and Physical and Biological Sciences.

Students transferring to the University of California system must also certify competence in a Language Other Than English (Intersegmental Council of Academic Senates 2018).

### *Common Course Numbering*

To simplify course transferability across colleges and universities in the state, California's Course Identification Numbering System assigns common course numbers to courses deemed to be equivalent and transferable between IHEs. The numbering system determines whether courses are equivalent through faculty-led reviews of course content, outlines, descriptors, and learning objectives. Most numbers identify lower division courses that are commonly articulated between the California community colleges and universities (including University of California, California State University, as well as many of California's independent colleges and universities).

### ***Governance and Stakeholder Involvement***

California's three higher education segments are each governed by a governing board, a Chancellor's Office, and the Academic Senate. These entities oversee the implementation of all articulation policies within their system. Their roles include approving and monitoring transfer associate's degree programs, setting requirements for general education coursework, and establishing guidelines or requirements for course transferability.

The California Intersegmental Articulation Council is a professional association of college and university articulation officers from across all of California's three segments. The council provides regional professional development; creates networking opportunities across stakeholders; and acts as a "statewide forum for the discussion and resolution of transfer, articulation, and curricular issues and concerns" (California Intersegmental Articulation Council 2013, 10). Articulation officers play an instrumental role in the articulation process as they represent different institutions during council convenings with state-level stakeholders. They also act as a liaison between their college or university and other IHEs, advise community college and university staff on the transfer and articulation process, coordinate course reviews for the numbering system, and update their institution's faculty and staff on changes to state articulation policies.

### ***State Supports for Implementation***

ASSIST, California's official online articulation repository, houses general education requirements, transfer admission courses, and articulation agreements between California community colleges and all public four-year universities. ASSIST can be accessed internally by state-level higher education administrators, IHE faculty, and articulation officers who hold special administrative rights that allow them to review courses and make articulation decisions. It also can be viewed externally by students, advisors, and the general public to see which course credits will transfer between particular IHEs.

## **Florida**

### ***Introduction and State Context***

The Florida legislature passed its first bill related to higher education articulation in 1971, and the state now has a statewide articulation agreement in which the associate of arts degree is a 2+2 transfer degree with guaranteed admission into a four-year college or university. The agreement also established common general education requirements, a common course numbering system, and common

prerequisites for admission into four-year degree programs. The agreement also guarantees the transfer of nine credit hours toward an ECE associate’s degree for students who hold child care certifications approved by the State Board of Education, including the CDA Credential.

Several contextual factors in Florida created a need for articulation. Historically, the state’s first universities only offered upper division courses, and most students completed the first two years of college at a community college. Today, nearly half of baccalaureate graduates in the state system are still transfer students.

Additional background on the state policy context is given in Exhibit A3, including higher education, ECE, and teacher licensing policies and programs.

**Exhibit A3. Characteristics of Florida’s state policy context**

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State context	Description
<b>Higher education context</b>	
Higher education governance structure	Each higher education system has its own governing board. The State University System of Florida Board of Governors governs the public four-year institutions. The Florida State Board of Education governs the public community colleges. Colleges in both systems are also governed by local institutional boards.
Number of higher education system(s)	2 (Florida College System, State University System of Florida)
Number, percentage of institutions granting ECE degrees	32, 78%
<b>ECE program context</b>	
State preschool program	Yes (Voluntary Prekindergarten Education Program, “VPK”)
Percentage of 4-year-olds served in early education programs	85%
Bachelor of arts requirements for early childhood educators	No
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	Credentials: <ul style="list-style-type: none"> <li>• Florida Child Care Professional Credential</li> <li>• Child Development Associate</li> <li>• Certified Child Care Professional</li> </ul> Certificates/endorsements: <ul style="list-style-type: none"> <li>• Exceptional Education: K–12</li> <li>• Preschool Education: Birth to Age 4</li> <li>• Prekindergarten Disabilities: Birth to Age 5</li> <li>• Prekindergarten Primary: Age 3 to Grade 3</li> <li>• Elementary Education: Grades K–6</li> </ul>
Administering entity	Florida Department of Education Florida Department of Children and Families

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**Exhibit reads:** Florida uses separate governing boards for each higher education system as its state higher education governance structures.

Sources: State higher education websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015.

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## **Articulation Policy**

An overview of key state policies related to ECE articulation is given in Exhibit A4.

### **Exhibit A4. Florida articulation policies**

<b>Policy type</b>	<b>Status</b>
Transfer associate’s degree	Yes
Guaranteed admission	Yes
Common general education requirements	Yes
Common course numbering	Yes
Credit for the CDA Credential	Yes
Alignment to NAEYC standards	No

**Exhibit reads:** Florida has statewide policies regarding transfer associate’s degrees in ECE.

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

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#### *Transfer Associate’s Degree*

Florida’s statewide articulation agreement includes a 2+2 transfer associate’s degree policy, which allows students to first earn an associate of arts degree at a Florida college and then transfer to a four-year IHE. Students with an associate of arts degree receive block transfer of their lower division coursework and enter the four-year college or university with junior status. In addition, the statewide articulation agreement calls for the articulation of appropriate courses from associate of science and associate of applied science degree programs to baccalaureate degree programs, either for block transfer or on a course-by-course basis. Some institutions accept associate of science degrees for 2+2 transfer through regional articulation agreements between institutions.

#### *Guaranteed Admission*

Florida’s statewide articulation agreement guarantees that students who complete an associate of arts degree at a Florida college can earn a bachelor’s degree at a state university or college offering four-year degrees. However, students are not guaranteed admission to early childhood programs because there is an exception for “limited access” programs, such as PK–3 teacher certification. Limited access programs have additional requirements, such as minimum grade point average requirements, minimum grade requirements for specified courses, and prerequisites beyond the transfer associate’s degree. The guaranteed admission policy has other limitations. For example, students may not necessarily be admitted to their first-choice university, or they may be admitted to the university but not to their degree program of interest.

#### *Common General Education Requirements*

Through a 2012 mandate from the legislature, Florida instituted general education core course options of 30 credits of lower division coursework for newly admitted college students (Florida Department of Education 2014). The general education core options were developed by a series of faculty committees over a two-year period. The options include courses in general education subject areas, including communications, mathematics, social sciences, humanities, and natural sciences that comprise the general education core. To complete the general education core, students must complete at least one course in each general education subject area.

### *Common Course Numbering*

Florida developed a common course numbering system in response to concerns expressed by faculty and staff about transfer students' unnecessary repetition of courses (Florida Department of Education 2014). Under the Statewide Course Numbering System, courses that have the same academic content and are taught by faculty with comparable credentials are given the same prefix and number and are considered equivalent courses. By Florida law, an institution accepting a transfer student from another participating institution must award credit for equivalent courses. The credits awarded must satisfy the receiving institution's requirements as though the student took the courses at the receiving institution.

### *Credit for the CDA Credential*

Florida's statewide ECE articulation policy guarantees the transfer of nine credit hours toward an ECE associate's degree for students who hold child care certifications approved by the state board of education (Florida Department of Education n.d.). Eligible child care credentials include (1) the Florida Department of Children and Families Birth through Five Florida Child Care Professional Credential; (2) the Florida Department of Education (FLDOE) Child Care Apprenticeship Certificate; (3) the FLDOE Early Childhood Professional Certificate; and (4) the Council for Professional Recognition National CDA. To receive transfer credit, students must provide proof that their credential was issued within five years prior to their enrollment in the associate's degree program.

### *Other Policies*

Prerequisites for admission into specific degree programs are aligned at the state level for many degree programs. Common prerequisites are published in the state common prerequisites manual, which is a resource for students who are planning their academic programs. For prekindergarten to primary education (PK–3) teaching programs that lead to certification, there is one three-credit course prerequisite course titled, "Intro to Education" (Articulation Coordinating Committee n.d.). Faculty stakeholders in the state have worked to limit the number of common prerequisites because they do not count toward the associate of arts degree in many cases, and students are thus not eligible for financial aid to cover these courses.

## ***Governance and Stakeholder Involvement***

The Articulation Coordinating Committee oversees articulation in Florida. It is a K–20 advisory body appointed by the Commissioner of Education and Chancellor of the State University System. The membership of the Articulation Coordinating Committee includes representatives from all levels of public and private education: the state university system, the Florida college system, independent postsecondary institutions, public schools, nonpublic schools, and career and technical education. An additional member represents students. The Office of Articulation in the Florida Department of Education assists the committee and plays an important role in coordinating the common course numbering process. The state also provides financial support for the work of the Articulation Coordinating Committee by reimbursing members who come to the committee meetings.

The Articulation Coordinating Committee is responsible for approving common prerequisites across program areas; approving course and credit-by-exam equivalencies; overseeing implementation of statewide articulation agreements; and 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). The committee gives direction to transfer coordinators and other academic contacts at each institution through an established process for disseminating information about new articulation agreements. It also is responsible for resolving student appeals.

Other committees and councils that support secondary and postsecondary articulation efforts for Florida's students include the Oversight Subcommittee, Residency Subcommittee, and Higher Education Coordinating Council. The Oversight Subcommittee reviews and approves faculty committee recommendations on common course prerequisites, statewide career ladder agreements, and statewide career and technical certificate to associate's degree agreements. The Residency Subcommittee reviews residency guidelines for tuition purposes. The Higher Education Coordinating Council has strong representation from business and industry leaders, who identify unmet needs and address the creation of new degree programs, institutes, campuses, or centers.

### ***State Supports for Implementation***

The Florida Office of Articulation maintains a website with several resources including the Statewide Articulation Manual, the Common Program Prerequisites Manual, and the Statewide Course Numbering System database. The website also includes information on Florida's 2+2 pathways and programs, a handout on transfer student rights under state law, and numerous other resources for students, faculty, and staff.

Relevant policies include the 30-hour advising rule, which requires students at all community colleges and state colleges, who have earned 30 credit hours, to identify their intended transfer institution and their intended transfer major. The colleges in turn report this information to the state. The advising rule is coupled with an excess credit hours policy, which requires students to pay a fee if they take more than 120 courses on the path to earning their baccalaureate degree. These policies aim to support transfer and articulation by ensuring that students and their advisors are planning their courses of studies thoughtfully.

Finally, the state's performance-based funding system for the state university system considers student retention and graduation rates, and the percentage of baccalaureate degrees awarded within 110 percent of the credit hours required for the degree.

## **Indiana**

### ***Introduction and State Context***

Indiana has several statewide articulation policies and initiatives. Legislation mandates that state policies are developed in collaboration with the public higher education systems (Ivy Tech, Indiana University, and Purdue University) that will implement the policies.

In 2012, legislation established common general education requirements called the Statewide Transfer General Education Core. Later, as mandated by *Senate Enrolled Act 182* enacted in 2013, Indiana's postsecondary institutions worked together to develop single articulation pathways for individual programs of study. A state administrator explained, "The principles that 'undergird' the whole process focused on the initial establishment of competencies, 'What is the student supposed to know and be able to do with that knowledge?'" These competency-based transfer associate's degrees, also known as Transfer Single Articulation Pathways, fully transfer to bachelor's degree programs at all four-year state institutions (Indiana General Assembly 2013). In 2015, the framework for the ECE Transfer Single Articulation Pathway was developed based on NAEYC Standards for Early Childhood Professionals in Associate Degree Programs. Indiana has a transfer guide and a Core Transfer Library which includes the common general education requirements in the Statewide Transfer General Education Core. The Core Transfer Library is the groundwork laid as Indiana implements a statewide common course numbering.

Unique to Indiana is that all community colleges are part of a statewide system that is accredited as a single institution, Ivy Tech. According to a state administrator:

*We were one of the last states to create a comprehensive community college system. We had a statewide technical college system, but it did not have the kind of transfer capabilities that community colleges are intended to promote. So, that all changed around the year 2000. Once we created that comprehensive community college system, we really focused on transfer to an extent that we had not focused on previously. There had been a slow buildup of transfer opportunities, but that all changed rather dramatically when we created our comprehensive community college system.*

A faculty member from a four-year IHE described the relationship between the community colleges and the four-year IHEs as “still emerging, because it has not been a part of our landscape historically.”

Additional background on the state policy context is given in Exhibit A5, including higher education, ECE, and teacher licensing policies and programs.

**Exhibit A5. Characteristics of Indiana’s state policy context**

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State context	Description
<b>Higher education context</b>	
Higher education governance structure	There is a single statewide coordinating board/agency, the Indiana Commission for Higher Education
Number of higher education system(s)	3 (Ivy Tech Community College, Indiana University, Purdue University)
Number, percentage of institutions granting ECE degrees	7/44%
<b>ECE program context</b>	
State preschool program	Yes
Percentage of 4-year-olds served in early education programs	16%
Bachelor of arts requirements for early childhood educators	No
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	Early Childhood Education: Preschool–Grade 3 Elementary Generalist: K–6
Administering entity	Office of Educator Effectiveness and Licensing, Indiana Department of Education

**Exhibit reads:** Indiana uses a single statewide coordinating board/agency as its state higher education governance structure.

Sources: State higher education websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015.

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## **Articulation Policy**

An overview of key state policies related to ECE articulation is given in Exhibit A6.

### **Exhibit A6. Indiana articulation policies**

<b>Policy type</b>	<b>Status</b>
Transfer associate’s degree	Yes
Guaranteed admission	No
Common general education requirements	Yes
Common Course Numbering or equivalent	Yes
Credit for the CDA Credential	Yes
Alignment to NAEYC standards	Yes

**Exhibit reads:** Indiana has statewide policies regarding transfer associate’s degrees in ECE.

Sources: State policy documents and higher education websites; interviews with state-level stakeholders, 2017–18; Education Commission of the States 2016; Fulton 2019.

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#### *Transfer Associate’s Degree*

In 2015, Indiana legislated mapping single articulation pathways designed for transfer. The Transfer Single Articulation Pathway degree programs were established to help students achieve a bachelor’s degree in the most time- and cost-efficient manner. As is specific to early childhood, Indiana’s Ivy Tech Community College system awards an ECE associate of science degree for transfer into all public and participating universities and colleges in Indiana with 60 credits and be admitted as a junior. According to a state administrator, “If students follow the course maps and the competencies that were mapped out, it’s a very seamless pathway.”

#### *Common General Education Requirements*

Indiana has the Statewide Transfer General Education Core, which consists of 30 semester hours of credit, the completion of which at one public institution means it can transfer as a block and count as satisfying the Statewide Transfer General Education Core equivalent at the receiving institution.

#### *Common Course Numbering*

Indiana is in the process of developing a common course numbering system. Presently, Indiana has a course equivalency database that is similar to a common course numbering system. As a feature of the state-funded TransferIN website, there is a Core Transfer Library, which is a list of courses approved by all Indiana public and six private institutions that transfer among all public colleges and universities, assuming adequate grades.

#### *Credit for the CDA Credential*

Ivy Tech Community College offers the CDA Credential through 18 credit hours, nine of which articulate into the associate of arts degree pathway. A faculty member from a two-year IHE indicated that some believe the CDA “does not bring quality” and should not be part of the pathway to a four-year degree program; however, disregarding the CDA completely becomes “a matter of equity and diversity” because many recipients are students of color, women, and/or speak English as a second language. The faculty member explained, “We used to use the CDA track to start building that first experience of college, so when they see themselves as successful in that, then they come and go for the whole associate degree” so it is important to “move the CDA people forward.” However, a workforce

development representative pointed out that one problem is there is no financial incentive to encourage students who have earned their CDA to move on and articulate into the associate of science or associate of applied science degree. In addition to the CDA, Indiana has an administrator's certificate for workers in the field who may have other degrees but need to have an ECE degree to meet state licensing requirements for childcare programs.

#### *Alignment to NAEYC Standards*

The ECE Transfer Single Articulation Pathway was built around Indiana Core Knowledge and Competencies as well as the NAEYC standards to promote the rigor and consistency of coursework transferred between the two-year and four-year IHE programs.

#### *Other Policies*

**Dual enrollment:** Indiana colleges and universities provide opportunities for qualified high school students to earn college credit while attending high school by taking dual credit courses. The career and technical education dual credit crosswalk assists students in maximizing credits. A state administrator noted, "We have a very strong dual credit program here in the state. Ivy Tech is clearly the largest provider and early childhood education is a part of that. So, students can complete their CDA in high school and we provide support to our institutions for dual credit." Students can take dual credit to satisfy that in their College-Level Examination Program and AP opportunities, which leads in nicely with the dual credit opportunities for students who are pursuing their CDA Credential in high school.

**AP and College-Level Examination Program:** Core credit earned through AP or College-Level Examination Program exams count toward Indiana's General Education Core. A state administrator reported, "One of the things we wanted to make sure is that we have a very clearly developed database of how scores on AP exams lead to students earning credit for a particular course. All of this is integrated into our transfer policy."

**Prior Learning Assessment:** The Prior Learning Assessment acknowledges prior learning gained outside the college classroom in a variety of settings, through formal and nonformal experiences. An IHE faculty member noted, "We offer students a [Prior Learning Assessment] for the AAS but for the AS, it is really hard to do that."

### ***Governance and Stakeholder Involvement***

The Indiana Commission for Higher Education is a 14-member public body created in 1971 to define the missions of Indiana's colleges and universities, plan and coordinate the state's postsecondary education system, and ensure that Indiana's higher education system is aligned to meet the needs of students and the state. The Commission includes representatives from each Congressional district, three at-large members, a college faculty representative, and a college student representative. A state administrator explained:

*[The Commission] plays a very strong role in making sure that articulation policies are well formulated and adhered to and carried out. The Commission is mentioned in the legislation, both the Gen Ed Core and the TSAP [Transfer Single Articulation Pathway] legislation. The language there is kind of interesting. It says that the institutions need to develop a Statewide Gen Ed Core. The institutions need to develop these single articulation pathways, but it says, in collaboration with the Commission, which means we're the ones that really are responsible for making sure that these policies are well articulated and carried out.*

One piece of the 2013 legislation was to create a task force of state institutional representatives to create mechanisms and effective communication for the Transfer Single Articulation Pathways. This Statewide Leadership Team was created to develop a framework for the Statewide Transfer General Education Core and to provide oversight of the implementation process. The Statewide Leadership Team agreed on six competencies, for which student learning outcomes would be developed. Within the Indiana Commission for Higher Education is the Statewide Leadership Team and State Transfer and Articulation Committee, which includes IHEs and faculty, and it works specifically to develop transfer agreements and practices and supervise the Core Transfer Library. According to one state administrator, the Statewide Transfer General Education Core/TSAP [Transfer Single Articulation Pathway] leadership team consists of representatives from all two-year and four-year IHEs and meets every other month to discuss articulation issues.

ECE workforce development representatives were involved in the development of policy. For example, T.E.A.C.H.'s co-chair sat in the forum for the ECE Transfer Single Articulation Pathway development. Several respondents mentioned the importance of the Indiana Association for the Education of the Young Children. A two-year IHE representative stated that the Indiana Association for the Education of the Young Children "played a huge part in giving us legislative updates and keeping us all on page across the state with what's happening." In addition, one State Transfer and Articulation Committee member reported, "A lot of information we get as a state is through our Higher ED Forum that we have which is through our Indiana Association for the Education of Young Children. We always have a meeting in the spring, which we just finished, and we had 60 members attend from various schools across the state, so it's very well attended."

### ***State Supports for Implementation***

The state outlines implementation guidance in the publication, "Guidance on the Implementation of the Statewide Transfer General Education Core." Indiana has also established the TransferIN website to ensure that students and other stakeholders could easily access articulation and transfer information. Part of the state support includes administering the site, looking at institutional websites, and other "ongoing monitoring of transfer activities in the state" to ensure it is accurate and up to date.

The website, TransferIN, is a comprehensive source of information for students, advisors, counselors, and other stakeholders. The site provides general information as well as links to Indiana colleges' and universities' admissions and financial aid pages, dual credit, Indiana e-Transcript, military information, steps for transfer, and a glossary of terms to know. It also provides detailed, course-specific transfer information through the Core Transfer Library, AP, dual credit, and College-Level Examination Program databases.

A Step-by-Step Guide itemizes the procedures a college advisor should follow with students who transfer to another school and with students who are onboarding at their institution.

A line item called the Transfer and Technology Fund in the Commission's budget amounts to roughly \$1 million, which supports the TransferIN website, the license to software for the statewide eTranscript program, institutional activities such as employment of the head of the Transfer Indiana office who also is a contract staff member at Ball State University, as well as incidental costs associated with convening the leadership team and faculty panels. Another indirect support is that Indiana offers e-Transcript services, which enable standardization and ease for students and IHEs to securely send and receive transcripts.

The state-funded T.E.A.C.H. scholarship has been described to help facilitate ECE students' degree attainment. A two-year IHE faculty member explained,

*In our state, we're fortunate that we've had T.E.A.C.H. Scholarships available for associate's degrees for a very long time but just since this articulation agreement in 2015, we now offer the bachelor's degree T.E.A.C.H. Scholarships to bachelor degree-seeking students so that's exciting and that's encouraged a lot of students to continue on with their degree.*

According to a senior-level administrator of the Commission for Higher Education, "everybody takes these state mandates pretty seriously." In addition, Indiana has a performance-based funding model which provides an incentive for four-year IHEs to accept transfer students. One metric is related to the number of graduates each year; a transfer student who went on to graduate counts toward that number even though they spent less time at the four-year IHE. As one state administrator explained, "They get the same money for increasing the number of graduates for a transfer student who transfers into their institution and is only there for two years, as they would somebody who was there for four years."

## **Massachusetts**

### ***Introduction and State Context***

In June 2008, Massachusetts' Board of Higher Education accepted the Final Report of the Commonwealth Transfer Advisory Group and the legislature passed legislation that led to the adoption of MassTransfer. MassTransfer established a General Education Foundation of 34 lower division course credits and associate's to bachelor's (A2B) degrees eligible for transfer across the commonwealth's community colleges, state universities, and University of Massachusetts campuses.

The ECE Transfer Compact and the Elementary Education Transfer Compact predate the MassTransfer Policy. These compacts were the commonwealth's first efforts at establishing statewide transfer agreements for specific majors. Beginning in 2011, the revised ECE Compact provided community college students seeking a baccalaureate degree with a pathway toward the completion of associate's and baccalaureate degrees within the Massachusetts' public higher education system. The ECE Compact served students planning to transfer from a Massachusetts community college to a state university or University of Massachusetts campus offering Department of Elementary and Secondary Education-approved early childhood (PK–2) licensure programs as well as nonlicensure programs in ECE that align with core competencies set forth by the Department of Early Education and Care (e.g., infant, toddler, preschool, and related fields). The compact also specified coursework that fulfills Department of Early Education and Care professional child care qualifications for lead teacher certification. In 2015, the Department of Higher Education refined the prior efforts of the ECE Compact that took effect in 2004 as the Commonwealth's first efforts in establishing a transfer pathway for a specific major and developed the ECE "A2B Mapped" transfer pathway that became available in 2017. Students who complete their A2B degrees are guaranteed full transfer of a minimum of 60 credits and, contingent on grade point average or major requirement, may receive guaranteed admission and tuition discounts.

Additional background on the state policy context is given in Exhibit A7, including higher education, ECE, and teacher licensing policies and programs.

**Exhibit A7. Characteristics of Massachusetts’s state policy context**

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State context	Description
<b>Higher education context</b>	
Higher education governance structure	The Massachusetts Board of Higher Education is the single statewide coordinating board, which also has some governing authority over all three segments of the higher education system.
Number of higher education system(s)	1 system of 3 segments (community colleges, state universities, and University of Massachusetts segments)
Number/percentage of institutions granting ECE degrees	23/74%
<b>ECE program context</b>	
State preschool program	Yes
Number, percentage of 4-year-olds served in early education programs	22, 79%
Bachelor of arts requirements for early childhood educators	No
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	Early Childhood (PreK through grade 2) Elementary (grades 1–6) Director certificate Lead Teacher certificate for Infant/Toddler and for Preschool Teacher certificate for Infant/Toddler and for Preschool
Administering entity	Department of Early Education and Care Department of Elementary and Secondary Education

**Exhibit reads:** Massachusetts uses a single statewide coordinating board/agency as its state higher education governance structure.

Sources: State higher education websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015; state teacher credentialing agency websites.

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## **Articulation Policy**

An overview of key state policies related to ECE articulation is given in Exhibit A8.

### **Exhibit A8. Massachusetts articulation policies**

<b>Policy type</b>	<b>Status</b>
Transfer associate's degree	Yes
Guaranteed admission	Yes
Common general education requirements	Yes
Common course numbering or equivalent	Yes
Credit for the CDA Credential	No
Alignment to NAEYC standards	No

**Exhibit reads:** Massachusetts has statewide policies regarding transfer associate's degrees in ECE.

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

#### *Transfer Associate's Degree*

The ECE A2B mapped associate's degree program ensures that all credits under the agreement are applied to the baccalaureate program at a state university, University of Massachusetts campuses, or other participating IHEs.

#### *Common and General Education Requirements*

The General Education Foundation is agreed upon lower division coursework equivalent to 34 credits that is to be transferable across all community colleges, state universities, University of Massachusetts campuses, and other participating IHE.

#### *Common Course Numbering*

Massachusetts is in the process of developing a common course numbering system. Massachusetts has a course equivalency database that is utilized similarly to a common course numbering system. As a feature of the state-funded MassTransfer website, stakeholders can find General Education Foundation courses that satisfy core requirements across all community colleges, state universities, University of Massachusetts campuses, and other participating IHEs.

#### *Guaranteed Admission*

There is a guaranteed admission policy for A2B MassTransfer students, although it is space permitting, and requires that students must earn 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.

#### *Other Policies*

The Commonwealth Dual Enrollment Partnership provides opportunities for Massachusetts high school students to take college-level courses at a discounted price and earn credit toward high school completion and their future college degrees. An agreement with the state's Department of Elementary and Secondary Education, which oversees high school career and technical education programs in ECE, allows students to graduate high school with up to six credits that can be transferred to a two-year IHE.

Alternative sources of credit: Many alternative sources of transferrable credit are outlined under article VI of the Common Transfer Policy Massachusetts Articulated System of Transfer, determined by satisfactory scores on AP and College-Level Examination Program examinations. Credit may be granted for learning through work community service, military, hobby experiences, or other training experiences based on the Prior Learning Assessment standards.

### ***Governance and Stakeholder Involvement***

The Board of Higher Education is the statutorily created agency in Massachusetts responsible for defining the mission of and coordinating the Commonwealth's system of public higher education and its institutions. The Massachusetts Department of Higher Education is the staff to the 13-member Board of Higher Education, which is responsible for executing the Board's policies and day-to-day operations. Articulation efforts are staffed and coordinated by several offices in the Department of Higher Education, including Postsecondary Success Strategies and the Academic Affairs and Student Success. The Board of Higher Education created the Commonwealth Transfer Advisory Group to make recommendations around transfer and articulation. The Board of Higher Education directed the Department of Higher education to advance the recommendations, and staff have been working toward developing a unified system of transfer.

The roles of the oversight body are to implement MassTransfer policies; provide clear, accurate access to transfer options; ensure effectiveness and accountability by having transfer information reported by state institutions to be submitted for review by the Joint Committee on Higher Education within the Legislature; and expand alignment of statewide A2B and course transfer. The Department of Higher Education oversees that IHEs periodically review, maintain, and publish the process for appeals, publish the contact of an ombudsperson, and ensure compliance with MassTransfer policies. The Board of Higher Education dictates whether programs have degree-granting authority.

#### ***Stakeholder Involvement***

According to a state administrator, the state uses statutes, statewide initiatives, advisory groups, and grants to gather input from stakeholders to achieve a "faculty-driven and transfer professional-supported" pathway. Advisory groups include the B3 (a birth to grade three) advisory group within the Executive Office of Education as well as the early childhood representatives from the Department of Elementary and Secondary Education and the Department of Early Education and Care. Faculty are involved in several capacities. They are involved in the working groups looking at credentials and competencies. Sometimes, faculty are involved in making decisions to evaluate course equivalency. State administrators referenced the needs and views of the students as a guiding focus of policy, but they did not describe students' direct involvement. Workforce development representative involvement includes NAEYC, Strategies for Children, and the Massachusetts Association of Early Education and Care.

### ***State Supports for Implementation***

Massachusetts was reported to have considerable interest among legislators in creating a unified system among its 28 undergraduate public institutions. Senate bills mandated these efforts and state budgets include support for such initiatives. For example, the commonwealth's Performance Incentive Fund is an annual, competitive grant fund designed to launch or scale higher education strategies or partnerships to advance priorities like increasing college completion rates, including the rate of students who transfer. In 2012, the Legislature included funding in the Performance Incentive Fund to promote the adoption of common courses across public higher education, which expanded efforts at the community

colleges to begin cataloging courses at state universities and University of Massachusetts campuses. Of the 2018 grants awarded, more Performance Incentive Fund funding is going to support systemwide transfer than any other initiative. Educator-provided support grants are available to encourage work with public institutions to continue work on academic alignment, common course numbering, and articulation.

To implement articulation efforts at the institutional level, the Commonwealth funded the development of the course equivalency database and the MassTransfer website, which provide information to plan or execute transfer plans. To establish the website, faculty and other transfer specialists identified course that are commonly transferred and designated which of these courses qualified for inclusion in the General Education Foundation. These courses are cataloged on the MassTransfer website. It also was reported that faculty are provided stipends for attending statewide transfer pathway meetings when participating in the creation of systemwide A2B maps. Assets of the website include searchable General Education Foundation course and A2B program equivalencies; degree maps and transfer advisor contact information for prospective and current students; and guidance for stakeholders.

### *Student-Specific Supports*

- **The Commonwealth Commitment:** This policy provides students with a freeze on tuition and fees for all four years and provides 10 percent end-of-semester rebates. It also provides a tuition discount to students who complete an associate's degree in a linked program with a cumulative 3.0 grade point average once they transfer to a public four-year IHE.
- **MassTransfer Tuition Credit/Waiver:** Students who complete an A2B degree with a 3.00 or greater grade point average will receive the MassTransfer Tuition Credit for two years at the state university or the University of Massachusetts campus, provided they (1) matriculate within one year of receiving an associate degree; (2) enroll continuously (full-time or part-time) in a day program; and (3) achieve 3.00 grade point average after the first two semesters.
- **Early Childhood Educators Scholarship Program:** This scholarship is funded by the commonwealth's Departments of Higher Education and Early Education and Care, which now award more than 1,000 scholarships per year.
- **Outreach:** The Department of Higher Education has a "Go Public!" campaign to raise awareness of opportunities to continue or reenroll in participating IHEs as well as a "Go Higher" events held at high schools to inform students about the different pathways available outside of a traditional four-year program.
- **ECE Career Pathways:** The Department of Early Education and Care seeks to engage Massachusetts community college partners to promote and expand professional development opportunities and higher education certificate and degree attainment for the early childhood education and out-of-school time workforce. This effort includes a focus on identifying the recruitment and training needs specific to the early childhood education and out-of-school time workforce; expanding opportunities for career advancement and retention; and collaboration with early education and care stakeholders, employers, and industry.

### *Data and Accountability*

Systemwide data are collected in the Higher Education Information Resource System. The Data Center is a central resource for higher education data available on Massachusetts' Department of Higher Education website. There was a taskforce on Retention and Completion Rates at the Community Colleges. The

commonwealth has an Annual Performance Measurement Report for the State and Community Colleges, which includes the number of community college students who transfer into the state colleges and the number of these students who transfer through joint admissions. As of September 2016, new data points were added to ascertain whether students are transferring into the same discipline as their associate's degree and whether they are graduating with an excess number of credits."

*Senate Bill 579* in Massachusetts is currently under discussion. This Act affirms the need to build and maintain a

*. . . computer-based transfer and degree auditing system providing individual students with clear and consistent information on the student's progress toward fulfilling degree requirements in any undergraduate program at any public institution of higher education; provided that the system shall include course-to-course equivalencies across institutions.*

## **New Mexico**

### ***Introduction and State Context***

New Mexico's ECE articulation efforts date back to the 1990s when ECE faculty from two-year and four-year IHEs across the state came together to discuss aligning their coursework to address competencies required for the state's new Birth to Grade 3 teaching credential. These meetings evolved into the state's Early Childhood Higher Education Task Force, which subsequently developed a statewide ECE career lattice and articulation agreement. Under this agreement, ECE courses at all public colleges and universities are anchored around a common set of learning competencies; have common course titles, descriptions, and credit units; and automatically articulate at any public school in the state. The Early Childhood Higher Education Task Force is composed of ECE faculty and leadership representatives from all public colleges and universities, as well as workforce development representatives, advocacy groups, state policymakers, and administrators from the New Mexico Public Education Department. It meets regularly to discuss articulation and other issues related to early childhood educator preparation.

In addition to its ECE-specific articulation efforts, New Mexico passed legislation in 2015 requiring the development of a statewide common course numbering and articulation system for all lower division coursework, including processes for determining whether courses are substantively equivalent and for aligning courses around mutually agreed-on competencies. This effort was rolled out under the direction of the New Mexico Higher Education Department and a statewide Articulation and Transfer Committee.

Additional background on the state policy context is given in Exhibit A9, including higher education, ECE, and teacher licensing policies and programs.

### Exhibit A9. Characteristics of New Mexico’s state policy context

State context	Description
<b>Higher education context</b>	
Higher education governance structure	A single statewide coordinating agency, the Department of Higher Education, is headed by a Cabinet Secretary appointed by the governor.
Number of higher education system(s)	1 (University of New Mexico)
Number/percentage of institutions granting ECE degrees	23, 82%
<b>ECE program context</b>	
State preschool program	Yes
Percentage of 4-year-olds served in early education programs	52%
Bachelor of arts requirements for early childhood educators	Bachelor’s required for public school settings only
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	Credentials/certificates: <ul style="list-style-type: none"> <li>• Child Development Certificate with Infant/Toddler Specialization</li> <li>• Child Development Certificate with Preschool Specialization</li> </ul> Licenses: <ul style="list-style-type: none"> <li>• Birth to Age 3</li> <li>• Age 4 to Grade 3</li> </ul>
Administering entity	New Mexico Children, Youth, and Families Department New Mexico Public Education Department

**Exhibit reads:** New Mexico uses a single statewide coordinating agency as its higher education governance structure.

Sources: State higher education websites; state teacher credentialing agency websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015.

### Articulation Policy

An overview of key state policies related to ECE articulation is given in Exhibit A10.

### Exhibit A10. New Mexico articulation policies

Policy type	Status
Transfer associate’s degree	Yes
Guaranteed admission	No
Common general education requirements	Yes
Common course numbering	Yes
Credit for the CDA Credential	No
Alignment to NAEYC standards	Yes

**Exhibit reads:** New Mexico has statewide policies regarding transfer associate’s degrees in ECE.

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

### *Transfer Associate's Degree*

Through statewide collaboration efforts that have taken place since the 1990s, all public two-year and four-year ECE programs in New Mexico have agreed to require the same set of courses for earning an ECE degree. In addition, those ECE courses are designed to cover the same set of core competencies, known as the Common Core Content; have the same course titles and descriptions; and follow the same master syllabi statewide. Given this alignment, ECE courses automatically transfer to any public college or university in the state, either as a block for students who have completed an associate's degree or as individual courses for students who have not completed the degree. A state administrator explained, "One of the hallmarks of the New Mexico system is that every single institute of higher education has the same [ECE] program for the associate's level and the same program for the bachelor's level, so there is clear articulation."

### *Common General Education Requirements*

In 2005, the passage of New Mexico Senate Bill 161 required the state to establish a common core of general education coursework that is guaranteed to transfer to any public college or university in the state provided the coursework is completed at a regionally accredited institution. Ten years later, in response to concerns that the New Mexico's General Education Common Core was "not purposeful enough in imbuing students with the skills essential for lifelong learning and success in the workplace" (Howard, Smith, and Munson-McGee 2018, 2), the state convened a committee of faculty and senior leaders from 19 colleges and universities to create a revised model that will go into effect in 2019–20. New Mexico's revised General Education Common Core decreases the total number of required general education credits from 35 to 31, including 22 "fixed" credits that are prescribed by the state and nine "flexible" credits that are specified by individual colleges and universities. The state-prescribed credits must be completed in the six content areas of communications, mathematics, science, social and behavioral sciences, humanities, and creative and fine arts. Moreover, the courses taken to satisfy these credits must collectively focus on the following five "essential skills": communication, critical thinking, quantitative reasoning, personal and social responsibility, and information and digital literacy.

### *Common Course Numbering*

ECE courses at all public colleges and universities in New Mexico are aligned to the state's Common Core Content, and they share common course numbers, titles, descriptions, master syllabi, and credits (New Mexico Early Childhood Higher Education Task Force 2011b). Faculty members have discretion in choosing the textbooks and activities they use, and they can choose to add competencies beyond those outlined in the Common Core Content.

For other content areas and general education courses, state legislation passed in 2015 mandated the development of a statewide common course numbering system, which involved identifying comparable courses, ensuring the student learning outcomes for those courses were at least 80 percent aligned, and assigning a common course number. Lower division coursework assigned a common course number is guaranteed to articulate at any public college or university in the state. A two-year college representative involved in developing the common course numbering system noted that a key goal of the initiative was to create transparency around course equivalency and transferability. She explained, "The obvious intention there is for students and those doing advising to have a very simple reference point in terms of determining whether they have credit for an equivalent course. If [the courses] are equivalent, they're going to have the same course number."

### *Alignment to NAEYC Standards*

The common set of core competencies that undergird all ECE courses was designed to reflect the NAEYC Professional Preparation Standards.

### ***Governance and Stakeholder Involvement***

New Mexico's Early Childhood Higher Education Task Force has worked to develop a statewide ECE career lattice, review ECE course syllabi to ensure they covered appropriate competencies for each level and design a system for ECE articulation (Turner and Haggard 2001). Today, the Early Childhood Higher Education Task Force meets on a regular basis to discuss articulation and other issues relevant to ECE in the state. The Task Force is composed of ECE faculty and leadership representatives from all public two-year and four-year colleges in New Mexico, as well as workforce development representatives, advocacy groups, state policymakers, Public Education Department folks who approve ECE programs, state teacher licensure representatives, and other state administrators (e.g., representatives from teacher licensure, Title I, early intervention, Tribal). It is facilitated by a chair, co-chair, and the Bureau Chief for the Office of Child Development under the state's Children, Youth, and Families Department, and it operates according to an agreed-on set of bylaws. The Early Childhood Higher Education Task Force provides a forum for facilitating collaboration and communication across all public ECE programs, and it is responsible for updating and overseeing the statewide curriculum and master syllabi for ECE courses. A state administrator explained, "The Early Childhood Task Force determines which course is appropriate for all higher ed and then establishes that criteria, comes to consensus, and adopt[s] it. . . . If a certain course or practicum or anything of that nature becomes required, that becomes the rule for everybody."

New Mexico's Articulation and Transfer Committee serves as the primary governing body for the statewide, cross-content area efforts to promote common course numbering and articulation. Led by the Cabinet Secretary of Higher Education and the President/Provost of New Mexico State University, the Articulation and Transfer Committee and its subcommittees include broad representation from all 31 public colleges and universities in the state, including faculty members, chief academic officers, registrars, and institutional research staff. The committee meets electronically on a regular basis to have discussions, vote on decisions, and keep the work of implementing the state's new articulation policies moving forward. After the statewide articulation system is fully in place, the Articulation and Transfer Committee is slated to transition into a statewide articulation committee responsible for maintaining and overseeing the system.

New Mexico's Statewide General Education Steering Committee met from 2016 to 2018 and was charged with revamping requirements for the state's General Education Common Core. The committee was composed of faculty and senior leaders from 19 colleges and universities, each of whom was expected to garner feedback from colleagues at their respective schools.

### ***State Supports for Implementation***

New Mexico has developed and distributed two key guides to support colleges and universities in designing academically aligned ECE courses. The first is its *Common Core Content and Competencies* resource, which outlines the agreed-on competencies that serve as the foundation for all ECE coursework in the state. For each competency, this resource outlines specific indicators for how students at the entry level, associate's level, and bachelor's degree level should be demonstrating those competencies (New Mexico Early Childhood Higher Education Task Force 2011a). The second is its *Universal Catalogue of Courses for Early Care, Education, and Family Support*, which contains the master

syllabi for all 100-, 200-, 300-, and 400-level ECE courses. Each syllabus includes the common course name and description, suggested textbooks, minimum course competencies, assignment ideas, evaluation practices, and a suggested course outline (New Mexico Early Childhood Higher Education Task Force 2011b).

## **Pennsylvania**

### ***Introduction and State Context***

In 2009, the Pennsylvania legislature mandated that public four-year colleges and universities in Pennsylvania State System of Higher Education accept associate's degrees from the state's two-year IHEs in a block, guaranteeing junior standing for all transfer students. State-related universities are only required to meet a 30-credit minimum block transfer of general education courses. To facilitate this, the Pennsylvania Department of Education created the Transfer and Articulation Oversight Committee, which was tasked with developing a statewide articulation policy and pathways for various programs across Pennsylvania's public colleges and universities.

The legislative mandate for statewide articulation coincided with changes at the state level in teacher licensing certifications. Around this time, Pennsylvania moved from a K–7 elementary education certification to PK–4 ECE/elementary education and grades 4–8 middle school certification. In addition to certification changes, the Office of Child Developing and Early Learning implemented new standards for ECE across the state. Another challenge to ECE transfer was that community colleges were offering two degrees in ECE (associate of arts, associate of science, and associate of applied science degree), and the pathway students selected may have impacted their transfer options. With the legislative mandate for statewide articulation, colleges and universities were able to coordinate degrees offered and realign their ECE programs across the state to meet NAEYC and state standards, as well as the PK–4 certification requirements.

Additional background on the state policy context is given in Exhibit A11, including higher education, ECE, and teacher licensing policies and programs.

**Exhibit A11. Characteristics of Pennsylvania’s state policy context**

State context	Description
<b>Higher education context</b>	
Higher education governance structure	Pennsylvania has a State Board of Education that exercises limited authority in higher education. The Pennsylvania State System of Higher Education and the Pennsylvania State University System have their own governing boards. Community colleges are governed by local boards.
Number of higher education system(s)	2
Number, percentage of institutions granting ECE degrees	30, 58%
<b>ECE program context</b>	
State preschool program	The Pennsylvania Four-Year-Old Kindergarten and School-based Prekindergarten programs, the Ready to Learn Block Grant, the Pennsylvania Head Start Supplemental Assistance Program, and the Pennsylvania Pre-K Counts Program.
Percentage of 4-year-olds served in early education programs	13%
Bachelor of arts requirements for early childhood educators	Yes
<b>Teacher licensing context</b>	
Types of ECE teacher certificates/licenses available	PK–4 Certificate
Administering entity	Pennsylvania Department of Education; Office of Child Development and Early Learning

**Exhibit reads:** Pennsylvania uses a state board of education, separate governing boards for its higher education systems, and local boards for community colleges as its state higher education governance structures.

Sources: State higher education websites; ; state teacher credentialing agency websites; U.S. Department of Education 2016; Barnett et al. 2017; Fulton 2019; National Research Council 2015.

**Articulation Policy**

An overview of key state policies related to ECE articulation is given in Exhibit A12.

**Exhibit A12. Pennsylvania articulation policies**

Policy type	Status
Transfer associate’s degree	Yes
Guaranteed admission	No
Common general education requirements	Yes
Common course numbering	No
Credit for the CDA Credential	No
Alignment to NAEYC competencies	Yes

**Exhibit reads:** Pennsylvania has statewide policies regarding transfer associate’s degrees in ECE.

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

### *Transfer Associate's Degree*

These statewide program-to-program articulation agreements allow students with certain associate's degrees (such as ECE) to transfer as juniors into bachelor's degree programs in similar fields of study. Statewide agreements apply only to eligible students who transfer between participating colleges; it is not a guarantee of admission.

The *Pennsylvania Statewide Program-to-Program Articulation Agreement for Degrees Leading to PK–4 Teacher Certification* outlines the criteria that ECE associate's degree programs and graduates must meet to fully transfer to an ECE bachelor's degree program (Pennsylvania Department of Education 2011). These criteria include both input-based (e.g., required courses and curricula) and outcomes-based (e.g., assessment performance) requirements, as follows:

1. Students must complete an associate's degree program that covers the core ECE coursework based on NAEYC's learning standards (30 credits) and general education coursework (30 credits) outlined in the articulation agreement.
2. Students must meet the grade and admission requirements of the four-year IHE to which they seek to transfer.
3. Students must submit a portfolio that documents their competency in each major content area.

A graduate who fulfills these criteria and is admitted to an ECE bachelor's degree program will enter the four-year IHE as a junior with all 60 associate's degree credits accepted. After the student is admitted, the four-year IHE evaluates the student's previous coursework to identify the remaining courses that the student must complete to fulfill the ECE bachelor's degree requirements (Pennsylvania Department of Education 2011).

### *Guaranteed Admission*

Pennsylvania's program-to-program agreements guarantee transfer of lower division credits but do not guarantee admission to any program. However, some two-year and four-year IHEs in Pennsylvania have formed local transfer pathways that do guarantee admission.

### *Common General Education Requirements*

Pennsylvania does not have a traditional structure of common general education requirements, but the state does offer a 30-Credit Transfer Framework, an advising tool that helps students to identify foundation-level courses that transfer seamlessly. These courses are the type of coursework generally completed during the first two years of a bachelor's degree program; the courses are in fields such as English, public speaking, math, natural science, art and humanities, and the behavioral and social sciences (Pennsylvania TRAC website). Students may transfer and apply up to 30 credits from the framework toward a degree at another public institution.

### *Alignment to NAEYC Standards*

The program-to-program agreement for ECE specifies that students will take 30 credits of general education and 30 credits of ECE core courses to transfer to a four-year IHE with guaranteed junior standing. All institutions much align their degree requirements with NAEYC content competencies and standards to facilitate this transfer.

### ***Governance and Stakeholder Involvement***

Legislation mandated the Pennsylvania Department of Education establish the Transfer and Articulation Oversight Committee in 2009. The Transfer and Articulation Oversight Committee is responsible for developing equivalency standards and courses for the 30-credit Transfer Framework, convening Program Articulation Committees to align coursework for various degree programs, reviewing existing policies and identifying modifications that may be required in existing associate's or bachelor's degree programs, defining requirements for education degrees leading to certification, and resolving any conflicts that arise during the articulation and transfer process (Pennsylvania Transfer and Articulation Oversight Committee 2013).

The Transfer and Articulation Oversight Committee called on faculty, administrators, and other personnel from participating institutions to be involved in the statewide program-to-program articulation process. To accomplish this goal, the Transfer and Articulation Oversight Committee established Program Articulation Committees for specific disciplines. The committee for ECE programs leading to PK–4 certification included 13 members representing the three sectors (community colleges, state-owned universities, opt-in institutions) and a Transfer and Articulation Oversight Committee member appointed by the Pennsylvania Department of Education.

### ***State Supports for Implementation***

To assist students and institutions with the transfer process, Pennsylvania has created a website that explains the process to all stakeholders, the Pennsylvania Transfer and Articulation Center. The legislative mandate that established statewide articulation also required this website. PATRAC.org is an online resource that provides comprehensive information about which courses students need to take to transfer into a four-year IHE with junior standing. Students and institutions can use the course database to search for course equivalencies across institutions. In addition, the Transfer and Articulation Oversight Committee's policies and procedures are available for public viewing as well. The state absorbs the cost for this website and pays for each participating institution's subscription to the portal to ensure access across the state.



## Appendix B. Study Design and Methodology

### Sampling Design

Data collection occurred in six states with statewide articulation policies that specifically address ECE degree program articulation. Within the six focal states, 20 IHEs granting ECE degrees (10 two-year colleges and 10 four-year IHEs) participated in data collection. This sample size enabled the study team to explore a variety of policy approaches that states use to enable articulation and how IHEs implement those policies.

#### *Selecting States for the Study*

Through extant document review, the study team identified an initial list of 11 states whose statewide articulation policies contained specific provisions for ECE were eligible for the study. 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 a way that is systemwide between public two-year and four-year higher education institutions. ECE-specific provisions address 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.

For the 11 identified states, the study team compiled data on a variety of observable state characteristics that may be associated with implementation, including type of articulation policy, geographic region, higher education context. Higher education context variables included governance structure, number of public higher education systems, number of Historically Black Colleges and Universities and minority-serving institutions, and number of ECE degrees granted. The study team also considered early childhood program context, including the presence of a state preschool program, the number of children served in state preschool and other early learning programs, whether preschool teachers were required to hold a bachelor's degree, and whether state policy requires that they receive pay parity with public school elementary school teachers.

Working in conjunction with PPSS, the Office of Early Learning, and the U.S. Department of Health and Human Services, the study team selected a sample of six focal states. Key characteristics for the six states selected are displayed in Exhibit B1. This sample was intended to yield informative and varied data on a range of approaches to ECE articulation, including different state policy approaches and implementation practices.

**Exhibit B1. Characteristics of 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 of arts 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: state higher education websites; Collegescorecard.ed.gov; U.S. Department of Education 2007; U.S. Department of Education 2016; Barnett et al. 2017; Barnett and Kasmin 2017.

**Selecting IHEs Within the Case Study States**

Within the focal states, the study team selected two-year and four-year IHEs for inclusion in the study based on three criteria. First, the team considered the number of ECE degrees granted; data collection was focused on IHEs that granted larger numbers of ECE degrees. Second, identification of IHEs was driven by the presence of a staff person, faculty member, or administrator who has been involved in the creation or oversight of statewide ECE articulation policy. Third, 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 the study. In addition, at least one IHE was selected from each public higher education system within each focal state. The study team used extant document review and Integrated Postsecondary Education Data System data to determine which institutions meet these criteria. The total number of two-year and four-year IHEs and the total number of higher education systems from which interview and focus groups participants were recruited are shown in Exhibit B2.

**Exhibit B2. Number of IHEs and IHE systems included in the case study sample**

Description	California	Florida	Indiana	Massachusetts	New Mexico	Pennsylvania
Number of two-year IHEs	3	2	1	1	1	2
Number of four-year IHEs	3	2	1	1	1	2
Number of higher education systems	3	2	1	1	1	2

## Data Collection

### *Interviews and Focus Groups*

The study team identified respondents through Web searches, extant document review, and respondent referrals. Outreach began with an introductory letter from the U.S. Department of Education to the state higher education executive officer and the president of each college that was targeted for data collection. Then the study team sent an email to each individual respondent, inviting him or her to participate in the study. To recruit students for focus groups, the study team asked faculty and staff from two-year and four-year IHEs in each state to distribute informational flyers inviting students with relevant experience to participate in the focus groups.

State-level respondents included higher education administrators, policy staff, and representatives from the state's governing body that oversees articulation. For each IHE included in the study data collection, the study team included: (1) one interview with a senior academic administrator; (2) one interview with a faculty member who develops or implements articulation policy, or advises students on transfer options; and (3) one focus group with staff involved in the transfer and articulation process, including a student advisor, a representative from the registrar's office, and a financial aid administrator. For each case study state, the study team also conducted virtual focus groups with students who had transferred or planned to transfer between a two-year and four-year IHE within the state. Interviews and focus groups each lasted 30–60 minutes.

The number of interviews and focus groups conducted are shown in Exhibit B3, by state and respondent type.

**Exhibit B3. Number of respondents included in interviews and focus groups, by respondent type and by state**

<b>Respondent type</b>	<b>California</b>	<b>Florida</b>	<b>Indiana</b>	<b>Massachusetts</b>	<b>New Mexico</b>	<b>Pennsylvania</b>
State agency or system administrator	3	3	2	4	2	3
Policy staff for the governor or legislature	1	1	0	0	1	1
Two-year faculty or administrators who serve on statewide articulation boards	1	1	0	0	1	1
Four-year faculty or administrators who serve on statewide articulation boards	1	1	0	0	0	1
Two-year faculty person	3	2	1	1	1	2
Four-year faculty person	3	2	2	1	1	2
Two-year student advisor, financial aid administrator, and registrar's office staff	9	6	4	3	3	6
Four-year student advisor, financial aid administrator, and registrar's office staff	9	8	3	3	3	6
Two-year senior academic administrator	3	2	1	1	1	2
Four-year senior academic administrator	3	2	1	1	1	2
ECE workforce development representative	1	1	1	1	1	2
Teacher licensing agency representative	0	3	0	2	1	1
ECE students who transferred or intend to transfer from two-year to four-year IHEs	5	4	4	1	4	4
<b>Total</b>	<b>42</b>	<b>36</b>	<b>19</b>	<b>18</b>	<b>20</b>	<b>33</b>

## Analytic Approach

The study's approach to analyzing the data featured four primary steps.

### *Qualitative Data Coding*

The study team sent audio files from telephone interviews and focus groups to a professional service to be transcribed. Using the NVivo Server software program, the study team then conducted systematic qualitative coding of the transcripts to organize the data around the study questions and related elements. Coding the qualitative data allowed analysts to pinpoint and review information relevant to each study question and element across all interview and focus group respondents within and across each nested state case.

Because the coding process relies on the analyst to determine whether a passage of interview text reflects a given code, the study team instituted several measures to ensure that analysts interpreted and applied the codes consistently. First, the study team developed a codebook featuring detailed descriptions of each code along with specific examples of interview or focus group text that should be captured under that code. (See the codebook in Appendix D.) Analysts then underwent training to promote a common understanding of each code, and they continued to meet weekly throughout the coding process to discuss questions that arose.

**State- and IHE-Level Data Repositories**

Once coding was completed, the study team synthesized the data attached to each code and entered that information into spreadsheet-based data repositories with spreadsheets that housed data by key topics related to the study questions, across all states and IHEs in the study sample. The purpose of this step was to reduce the large amounts of interview and focus group data related to each study question into more manageable summaries and to organize that information into a data array that would support the analysis of information across cases. A sample excerpt from the state-level data repository is presented in Exhibit B4.

**Exhibit B4. Sample excerpt from data repository pertaining to study question 1**

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Describe state policies regarding:

State	General education common core	Common course numbering	Alignment of standards, curriculum, content
California			
Florida			
Indiana			
Massachusetts			
New Mexico			
Pennsylvania			

---

To complete the data repository, analysts queried NVivo Server for all data coded with a specific code or combination of codes for a given state or IHE. They then reviewed and summarized coded data related to each component of the data repository. The study team also used this data repository to house and analyze extant data, including quantitative data on contextual variables extracted from national datasets and reports as well as qualitative data gleaned from the study team’s review of state policy documents. As with the qualitative interview and focus group data, analysts entered excerpts and/or summarized information from reviewed policy documents into cross-state data arrays organized around topics related to the study questions.

Analysts received training in the use of the data repository and participated in weekly meetings to discuss issues related to data synthesis and capture. In addition, study leaders reviewed data entries to identify possible gaps in information and to offer additional guidance to analysts. As needed, analysts revisited their entries to add detail and provide more robust evidence to support conclusions. Thus, the data repository served as an important means of quality control as well as a platform for analyses.

### ***Cross-Case Analysis and State Profiles***

Once the synthesized data were organized into the data repository, analysts explored trends and patterns across cases. To examine the prevalence of specific approaches or issues across cases, analysts generated counts of the number of states and/or IHEs in which respondents reported specific policies, practices, or other issues relevant to study questions (e.g., contextual factors, challenges, supports). In addition, analysts developed and applied state and IHE categorizations designed to differentiate more holistic types or patterns of approaches across the states and IHEs in the sample.

The study team also used the data repository to examine the data for each individual state case to produce structured state profiles that described important aspects of state context, articulation policy provisions, governance structures and stakeholder engagement, and articulation supports. These summaries are included in Appendix A.

## **Appendix C. Interview and Focus Group Protocols**



## State Administrator Interview Protocol

1. We'd like to start by asking you to tell us more about your role in state education policy. How are you involved in policymaking related to articulation?  
**Probe for:**
  - What workforce demands is the higher education system trying to meet?
  - How have institutional actors influenced articulation policy?**Listen for:**
  - State response to bachelor's degree requirements for teachers in Head Start, state prekindergarten, or QRIS
2. How has your state's economic and policy context influenced articulation policy?
3. How is your state's articulation policy designed to work?
4. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - How have these efforts been unique to early childhood education, as opposed to other subjects?
  - Who has been involved in these efforts, and what role have they played?
  - How have institutional actors influenced articulation policy?
5. How does accreditation — either from your regional accreditor, such as the Higher Learning Commission, or from a specialty organization, like the National Association for the Education of Young Children — relate to articulation in your state?
6. What are the responsibilities of {AGENCY/ARTICULATION BOARD OR COMMITTEE} with regard to oversight of articulation?  
**Probe for:**
  - How do they monitor implementation?
  - How do they enforce articulation policy?
  - Do they update policy? How frequently?
  - Do they offer an appeals process for decisions about credit transfer? How does that process work?
7. What kind of financial resources does the state provide to support oversight of articulation?  
**Probe for:**
  - What does the funding support?**Listen for:**
  - Funding to sustain the work of the articulation board or committee, or funding for public community colleges or state university systems.
8. In your state, which stakeholders are involved in making policy decisions about higher education articulation?  
**Probe for:**
  - How are they involved?
  - In your opinion, are there any important stakeholders who are not included or do not have adequate input?

9. How does your state support institutions of higher education in implementing articulation policy?

**Probe for:**

- For example, do you offer incentives, training, or funding for staff positions to manage the articulation process?
- How do you assess whether the levels of support are well matched to needs?
- What are the consequences for institutions that do not implement articulation policy?

10. What state-level guidance is available to students regarding articulation and transfer requirements?

**Probe for:**

- Who provides this information?
- At which stages of degree progress do students receive this information?
- How are these transfer resources provided?

11. What types of incentives does your state provide to encourage students to transfer from two-year to four-year colleges?

**Probe for:**

- How do these incentives work?
- Why did your state decide to offer these incentives?

**Listen for:**

- Specific forms of financial aid, guaranteed transfer, or priority admission

12. How does your state evaluate its articulation policy and transfer student outcomes?

**Probe for:**

- Does the state collect data on transfer student outcomes, such as the number of credits transferred or degree completion rates?
- Can data be limited to students in early childhood education degree programs?
- What is the source of these data? Is it the state's longitudinal data system (SLDS)?

13. How are evaluation findings or articulation data reported?

**Probe for:**

- Are the data accessible to the public?

14. What aspects of your state's approach to articulation do you think work well?

15. Are there aspects of articulation that you think work less well, or that you would like to improve?

16. What are the barriers to instituting comprehensive articulation policy in your state?

**Probe for:**

- What aspects of your state's higher education policy context make comprehensive articulation policy challenging?
- What are the barriers to coordination of academic policy across institutions?
- What other barriers hinder students in their efforts to earn transfer credit?

17. What steps have been taken to overcome those barriers?

**Probe for:**

- What other approaches could be tried to overcome the barriers?

18. What lessons could you share that other states might find helpful?

## Policy Staff Interview Protocol

1. We'd like to start by asking you to tell us more about your role in state education policy. How are you involved in policymaking related to articulation?
2. How has your state's economic and policy context influenced articulation policy?  
**Probe for:**
  - What workforce demands is the higher education system trying to meet?
  - How have institutional actors influenced articulation policy?**Listen for:**
  - State response to bachelor's degree requirements for teachers in Head Start, state prekindergarten, or QRIS
3. How is your state's articulation policy designed to work?
4. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - How have these efforts been unique to early childhood education, as opposed to other subjects?
  - Who has been involved in these efforts, and what role have they played?
  - How have institutional actors influenced articulation policy?
5. How does accreditation — either from your regional accreditor, such as the Higher Learning Commission, or from a specialty organization, like the National Association for the Education of Young Children — relate to articulation in your state?
6. What are the responsibilities of {AGENCY/ARTICULATION BOARD OR COMMITTEE} with regard to oversight of articulation?  
**Probe for:**
  - How do they monitor implementation?
  - How do they enforce articulation policy?
  - Do they update policy? How frequently?
  - Do they offer an appeals process for decisions about credit transfer? How does that process work?
7. What kind of financial resources does the state provide to support oversight of articulation?  
**Probe for:**
  - What does the funding support?**Listen for:**
  - Funding to sustain the work of the articulation board or committee, or funding for public community colleges or state university systems.
8. In your state, which stakeholders are involved in making policy decisions about higher education articulation?  
**Probe for:**
  - How are they involved?
  - In your opinion, are there any important stakeholders who are not included or do not have adequate input?

9. How does your state support institutions of higher education in implementing articulation policy?

**Probe for:**

- For example, do you offer incentives, training, or funding for staff positions to manage the articulation process?
- How do you assess whether the levels of support are well matched to needs?
- What are the consequences for institutions that do not implement articulation policy?

10. What state-level guidance is available to students regarding articulation and transfer requirements?

**Probe for:**

- Who provides this information?
- At which stages of degree progress do students receive this information?
- How are these transfer resources provided?

11. What types of incentives does your state provide to encourage students to transfer from two-year to four-year colleges?

**Probe for:**

- How do these incentives work?
- Why did your state decide to offer these incentives?

**Listen for:**

- Specific forms of financial aid, guaranteed transfer, or priority admission

12. How does your state evaluate its articulation policy and transfer student outcomes?

**Probe for:**

- Does the state collect data on transfer student outcomes, such as the number of credits transferred or degree completion rates?
- Can data be limited to students in early childhood education degree programs?
- What is the source of these data? Is it the state's longitudinal data system (SLDS)?

13. How are evaluation findings or articulation data reported?

**Probe for:**

- Are the data accessible to the public?

14. What aspects of your state's approach to articulation do you think work well?

15. Are there aspects of articulation that you think work less well, or that you would like to improve?

16. What are the barriers to instituting comprehensive articulation policy in your state?

**Probe for:**

- What aspects of your state's higher education policy context make comprehensive articulation policy challenging?
- What are the barriers to coordination of academic policy across institutions?
- What other barriers hinder students in their efforts to earn transfer credit?

17. What steps have been taken to overcome those barriers?

**Probe for:**

- What other approaches could be tried to overcome the barriers?

18. What lessons could you share that other states might find helpful?

## Faculty or Staff on Boards and Commissions Interview Protocol

1. We'd like to start by asking you to tell us more about your role in state education policy. How are you involved in policymaking related to articulation?
2. How has your state's economic and policy context influenced articulation policy?  
**Probe for:**
  - What workforce demands is the higher education system trying to meet?
  - How have institutional actors influenced articulation policy?**Listen for:**
  - State response to bachelor's degree requirements for teachers in Head Start, state prekindergarten, or QRIS
3. How is your state's articulation policy designed to work?
4. How does it work in practice?  
**Probe for:**
  - How do actual articulation practices differ from the vision set out in policy?
5. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - How have these efforts been unique to early childhood education, as opposed to other subjects?
  - Who has been involved in these efforts, and what role have they played?
  - How have institutional actors influenced articulation policy?
6. What are the responsibilities of {AGENCY/ARTICULATION BOARD OR COMMITTEE} with regard to oversight of articulation?  
**Probe for:**
  - How do they monitor implementation?
  - How do they enforce articulation policy?
  - Do they update policy? How frequently?
  - Do they offer an appeals process for decisions about credit transfer? How does that process work?
7. What kind of financial resources does the state provide to support oversight of articulation?  
**Probe for:**
  - What does the funding support?**Listen for:**
  - Funding to sustain the work of the articulation board or committee, or funding for public community colleges or state university systems.
8. In your state, which stakeholders are involved in making policy decisions about higher education articulation?  
**Probe for:**
  - How are they involved?
  - In your opinion, are there any important stakeholders who are not included or do not have adequate input?

9. How does your state support institutions of higher education in implementing articulation policy?

**Probe for:**

- For example, do you offer incentives, training, or funding for staff positions to manage the articulation process?
- How do you assess whether the levels of support are well matched to needs?
- What are the consequences for institutions that do not implement articulation policy?

10. What state-level guidance is available to students regarding articulation and transfer requirements?

**Probe for:**

- Who provides this information?
- At which stages of degree progress do students receive this information?
- How are these transfer resources provided?

11. What types of incentives does your state provide to encourage students to transfer from two-year to four-year colleges?

**Probe for:**

- How do these incentives work?
- Why did your state decide to offer these incentives?

**Listen for:**

- Specific forms of financial aid, guaranteed transfer, or priority admission

12. What advising services and other supports are available to help students at {COLLEGE} with the transfer process?

**Probe for:**

- How well do you think students understand what will happen when they transfer?

**Listen for:**

- Who provides the advice (department or title)
- Advice about earning transfer credit

13. What have you heard from students about their ability to receive transfer credit for prior coursework?

**Probe for:**

- What would make it easier for students to receive credit for prior coursework?

14. How does your state evaluate its articulation policy and transfer student outcomes?

**Probe for:**

- Does the state collect data on transfer student outcomes, such as the number of credits transferred or degree completion rates?
- Can data be limited to students in early childhood education degree programs?
- What is the source of these data? Is it the state's longitudinal data system (SLDS)?

15. How are evaluation findings or articulation data reported?

**Probe for:**

- Are the data accessible to the public?

16. What aspects of your state's approach to articulation do you think work well?

17. Are there aspects of articulation that you think work less well, or that you would like to improve?

18. What are the barriers to instituting comprehensive articulation policy in your state?

***Probe for:***

- What aspects of your state's higher education policy context make comprehensive articulation policy challenging?
- What are the barriers to coordination of academic policy across institutions?
- What other barriers hinder students in their efforts to earn transfer credit?

19. What steps have been taken to overcome those barriers?

***Probe for:***

- What other approaches could be tried to overcome the barriers?

20. What lessons could you share that other states might find helpful?

## Teacher Licensing Agency Representative Interview Protocol

1. We'd like to start by asking you to tell us more about your role in state education policy. What is your role at {licensing board/agency}?
2. What types of licensure does your state offer for teachers working with children ages birth through 8?  
**Probe for:**
  - [If relevant...] Why does your state have ECE licensure for teachers working with children under age 5?
3. How does your state's approach to ECE teacher licensure accommodate early childhood educators who hold a CDA credential or two-year degree?
4. What is your agency's position on the value of a bachelor's degree for ECE teachers?  
**Probe for:**
  - How much consensus is there among stakeholders in your state about the value of a bachelor's degree for ECE teachers?
5. How does higher education accreditation — either from a regional accreditor or the National Association for the Education of Young Children — relate to ECE teacher licensure in your state?
6. What does separate licensure — for ECE teachers working with younger children as opposed to school-age children — mean for their employment and for ECE workforce development?
7. In some states there are numerous ECE degree programs that do not lead to licensure. How common is that in your state?  
**Probe for:**
  - What do you see as the role of such degree programs in ECE workforce development?
8. How does your agency collaborate with other state-level agencies and committees that oversee higher education?  
**Probe for:**
  - To what extent would you say your goals are aligned?
9. How is your agency involved in making policy decisions about higher education articulation that affect the field of ECE?  
**Probe for:**
  - To what extent is articulation policy informed by licensing policy and vice versa?
10. To the extent that you are familiar with your state's articulation policy, how effective is it in supporting ECE student transfer?
11. What does separate licensure, for ECE teachers working with younger children, mean for higher education programs and articulation?  
**Probe for:**
  - How does your state's ECE teacher licensure policy influence the degree pathways available to students?

12. In your opinion, how does the influence of licensure policy differ between two-year and four-year colleges?
13. How does your state's approach to licensure influence curriculum in ECE degree programs?
14. How does the licensing board work with institutions of higher education and students to make sure students know what they should do to get licensed?  
**Probe for:**
  - Are two-year institutions kept up-to-date?
15. What types of data does your state collect about ECE teacher licensure?  
**Probe for:**
  - How are these data used?
  - Is this information shared with the public?
16. What aspects of your state's approach to ECE teacher licensure do you think work well?
17. Are there aspects of ECE teacher licensure that you think work less well, or that you would like to improve?
18. What are the barriers to coordination of ECE teacher licensing policy and articulation policy in your state?
19. What steps have been taken to overcome those barriers?  
**Probe for:**
  - What other approaches could be tried to overcome the barriers?
20. What lessons could you share that other states might find helpful?

## ECE Workforce Development Representative Protocol

1. We'd like to start by asking you to tell us more about your role at {ECE WORKFORCE DEVELOPMENT ORGANIZATION/ AFFILIATION}?
2. What state policies are in place to help students transfer from certificate or associate's degree programs to bachelor's degree programs?
3. To what extent do these policies work as intended?  
**Probe for:**
  - How do actual articulation practices differ from the vision set out in policy?
4. How has your state's economic and policy context influenced articulation policy for early childhood education?  
**Probe for:**
  - What workforce demands is the higher education system trying to meet?
  - How have institutional actors influenced articulation policy?**Listen for:**
  - State response to bachelor's degree requirements for teachers in Head Start, state prekindergarten, or QRIS
5. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - Who has been involved in these efforts, and what role have they played?
  - What successes and challenges have these efforts encountered?
6. How does accreditation — either from your regional accreditor, such as the Higher Learning Commission, or from a specialty organization, like the National Association for the Education of Young Children — relate to articulation in your state?
7. In your state, which stakeholders are involved in making policy decisions about higher education articulation?  
**Probe for:**
  - How are they involved?
  - In your opinion, are there any important stakeholders who are not included or do not have adequate input?
8. What state-level guidance is available to students regarding articulation and transfer requirements?  
**Probe for:**
  - Who provides this information?
  - At which stages of degree progress do students receive this information?
  - How are these transfer resources provided?
9. What advising services and other supports are available to help students with the transfer process?  
**Probe for:**
  - How well do you think students understand what will happen when they transfer?**Listen for:**
  - The sources of advice/guidance (state and institutional)
  - Advice about earning transfer credit

10. What tools and information are available to students to help them determine their career paths?

11. What have you heard from students about their ability to receive transfer credit for prior coursework?

**Probe for:**

- What barriers do students encounter when transferring credits?
- What would make it easier for students to receive credit for prior coursework?

12. How does your state's teacher licensure policy influence the degree pathways available to students?

**Probe for:**

- How does your state's approach to early childhood licensure accommodate early childhood workers who hold a CDA credential?
- How does the approach accommodate those with a two-year degree?

13. In some states there are numerous ECE degree programs that do not lead to licensure. How common is that in your state?

**Probe for:**

- What do you see as the role of such degree programs in ECE workforce development?

14. Would you like to see more or less flexibility regarding the ways in which ECE teachers are licensed? Why?

15. What efforts have been made to evaluate articulation policy and transfer student outcomes in your state?

**Probe for:**

- What was found?
- How does your industry contribute to and use this data?

16. What aspects of your state's approach to articulation do you think work well?

17. Are there aspects of articulation that you think work less well, or that you would like to improve?

18. What are the barriers to instituting comprehensive articulation policy in your state?

**Probe for:**

- What aspects of your state's higher education policy context make comprehensive articulation policy challenging?
- What are the barriers to coordination of academic policy across institutions?

19. What steps have been taken to overcome those barriers?

**Probe for:**

- What other approaches could be tried to overcome the barriers?

20. What advice would you give to policymakers to improve articulation?

## IHE Senior Administrator Interview Protocol

1. What is your role at {COLLEGE}?
2. Would you please tell me about your early childhood education program?  
**Probe for:**
  - What is its mission?
  - Where is it housed?
  - What types of certificate or degree programs are offered?
3. What state policies are in place to help ECE students transfer from certificate or associate's degree programs to bachelor's degree programs?
4. What system and institutional policies are in place?  
**Probe for:**
  - What input have you or your college had on the development of articulation policy?
5. In your institution and in your department, how are decisions made about implementing articulation policies?  
**Probe for:**
  - Who is involved?
  - What are their roles?
6. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - How have these efforts been unique to early childhood education, as opposed to other subjects?
  - Who has been involved in these efforts, and what role have they played?
  - How have institutional actors influenced articulation policy?
7. How does accreditation — either from your regional accreditor, such as the Higher Learning Commission, or from a specialty organization, like the National Association for the Education of Young Children — relate to articulation in your state?
8. Please tell me how the transfer process works at {COLLEGE}?  
**Probe for:**
  - What kinds of information are shared between institutions, other than transcripts?
  - How do questions about the transferability of credit get answered?
  - How does the process vary by receiving or sending institution?
9. What resources are in place to ensure that you, as an administrator, can meet the needs of students before, during, and after the credit transfer process?  
**Probe for:**
  - How are you informed about articulation decisions made about specific students?
  - How are you informed about state or system transfer and articulation policies?
  - What kind of professional development is available to you?
  - What other resources do you wish were available?

10. What advising services and other supports are available to help students at {COLLEGE} with the credit transfer process?

**Probe for:**

- How are students informed about what will happen to their credits when they transfer?
- How well do you think students understand the credit transfer process?
- To what extent do the advising services address career paths and degree affordability?
- How does {COLLEGE} ensure these advising services are accessible to students?

**Listen for:**

- Who provides the advice (department or title)
- Advice about earning transfer credit
- Student understanding of the transfer process

11. What have you heard from students about their ability to receive transfer credit for prior coursework?

**Probe for:**

- What would make it easier for students to receive credit for prior coursework?

12. How does your institution balance academic quality against the burden placed on students when they lose credits during the transfer process?

13. What aspects of your institution's approach to articulation do you think work well?

14. Are there aspects of articulation that you think work less well, or that you would like to improve?

15. What are the barriers to instituting comprehensive articulation policies and procedures at {COLLEGE}?

**Probe for:**

- What are the challenges you face in supporting transfer students?

16. What steps have been taken to overcome those barriers?

**Probe for:**

- What other approaches could be tried to overcome the barriers?

17. What advice would you give to policymakers to improve articulation?

## IHE Faculty Interview Protocol

1. What is your role at {COLLEGE}?
2. Would you please tell me about your early childhood education program?  
**Probe for:**
  - What is its mission?
  - Where is it housed?
  - What types of certificate or degree programs are offered?
3. What state policies are in place to help ECE students transfer from certificate or associate's degree programs to bachelor's degree programs?
4. What system and institutional policies are in place?  
**Probe for:**
  - How does your institution balance academic quality against the burden placed on students when they lose credits during the transfer process?
  - What input have you or your college had on the development of articulation policy?
5. In your institution and in your department, how are decisions made about implementing articulation policies?  
**Probe for:**
  - Who is involved?
  - What are their roles?
6. What efforts have been made to align ECE curriculum and learning standards between two-year and four-year institutions?  
**Probe for:**
  - How have these efforts been unique to early childhood education, as opposed to other subjects?
  - Who has been involved in these efforts, and what role have they played?
  - How have institutional actors influenced articulation policy?
7. Please tell me how the transfer process works at {COLLEGE}?  
**Probe for:**
  - What kinds of information are shared between institutions, other than transcripts?
  - How do questions about the transferability of credit get answered?
  - How does the process vary by receiving or sending institution?
8. What resources are in place to ensure that you, as a faculty member, can meet the needs of students before, during, and after the credit transfer process?  
**Probe for:**
  - How are you informed about articulation decisions made about specific students?
  - How are you informed about state or system transfer and articulation policies?
  - What kind of professional development is available to you?
  - What other resources do you wish were available?

9. What advising services and other supports are available to help students at {COLLEGE} with the credit transfer process?

**Probe for:**

- How are students informed about what will happen to their credits when they transfer?
- How well do you think students understand the credit transfer process?
- To what extent do the advising services address career paths and degree affordability?
- How does {COLLEGE} ensure these advising services are accessible to students?

**Listen for:**

- Who provides the advice (department or title)
- Advice about earning transfer credit
- Student understanding of the transfer process

10. What have you heard from students about their ability to receive transfer credit for prior coursework?

**Probe for:**

- What would make it easier for students to receive credit for prior coursework?

11. What aspects of your institution's approach to articulation do you think work well?

12. Are there aspects of articulation that you think work less well, or that you would like to improve?

13. What are the barriers to instituting comprehensive articulation policies and procedures at {COLLEGE}?

**Probe for:**

- What are the challenges you face in supporting transfer students?

14. What steps have been taken to overcome those barriers?

**Probe for:**

- What other approaches could be tried to overcome the barriers?

15. What advice would you give to policymakers to improve articulation?

## IHE Staff Focus Group Protocol

1. First, please tell me your name, what your role is at {COLLEGE}, and how are you involved in the transfer and articulation process.
2. What state policies are in place to help ECE students transfer from certificate or associate's degree programs to bachelor's degree programs?
3. What system and institutional policies are in place?  
**Probe for:**
  - How does your institution balance academic quality against the burden placed on students when they lose credits during the transfer process?
  - What input have you or your college had on the development of articulation policy?
4. In your institution, how are decisions made about implementing articulation policies?  
**Probe for:**
  - Who is involved?
  - What are their roles?
5. Please tell me how the transfer process works at {COLLEGE}?  
**Probe for:**
  - What kinds of information are shared between institutions, other than transcripts?
  - How do questions about the transferability of credit get answered?
  - How does the process vary by receiving or sending institution?
6. How are faculty involved in the credit transfer process?  
**Probe for:**
  - [If not:] How are faculty involved in developing credit transfer policies or in oversight of the process?
7. What resources are in place to ensure that you, as a staff member, can meet the needs of students before, during, and after the credit transfer process?  
**Probe for:**
  - How are you informed about state or system transfer and articulation policies?
  - What kind of professional development is available to you?
  - What other resources do you wish were available?
8. What advising services and other supports are available to help students at {COLLEGE} with the credit transfer process?  
**Probe for:**
  - How are students informed about what will happen to their credits when they transfer?
  - How well do you think students understand the credit transfer process?
  - To what extent do the advising services address career paths and degree affordability?
  - How does {COLLEGE} ensure these advising services are accessible to students?**Listen for:**
  - Who provides the advice (department or title)
  - Advice about earning transfer credit
  - Student understanding of the transfer process

9. What have you heard from students about their ability to receive transfer credit for prior coursework?

***Probe for:***

- What would make it easier for students to receive credit for prior coursework?

10. What aspects of your institution's approach to articulation do you think work well?

11. Are there aspects of articulation that you think work less well, or that you would like to improve?

12. What are the barriers to instituting comprehensive articulation policies and procedures at {COLLEGE}?

***Probe for:***

- What are the challenges you face in supporting transfer students?

16. What steps have been taken to overcome those barriers?

***Probe for:***

- What other approaches could be tried to overcome the barriers?

13. What advice would you give to policymakers to improve articulation?

## Student Focus Group Protocol

1. First, please tell us your name, which college you go to, and what you're studying. Please also let us know which institution you transferred from, or which institution you intend to transfer to.

2. To start our discussion, we'd like each of you to take a few minutes to share the story of how you chose your first college, and what your goals were when you started school.

**Probe for:**

- What led to you study for a degree related to early childhood education?

**Listen for:**

- Type of degree
- Career goals

3. By a show of hands, how many of you are enrolled in a two-year college? How many of you have already transferred to a four-year college?

4. How many of you took time off of school before transferring, and if so, how much?

5. If you haven't already transferred, what are the factors that are motivating you to consider transferring?

**Probe for:**

- To what extent has articulation factored into your decision making? In other words, did you consider the number of transfer credits that would be granted?

**Listen for:**

- Considerations related to credit transfer and the articulation process
- Type of degree
- Guaranteed admission
- Desire for a teaching license

6. If you have transferred, what were the most important things you considered when selecting your new degree program and school?

**Probe for:**

- To what degree did articulation factor into your decisions? In other words, did you consider the number of transfer credits that would be granted?

**Listen for:**

- Considerations related to credit transfer and the articulation process
- Type of degree
- Guaranteed admission
- Desire for a teaching license

7. How much did you know about how credit transfer works prior transferring? If you haven't already transferred, what is your understanding of the credit transfer process?

**Probe for:**

- What was your understanding of how the two colleges would coordinate

8. By a show of hands, how many of you have received advice about credit transfer from someone who worked at your first college or the college where you transferred? Please tell me about the advice or guidance that you received.

**Probe for:**

- To what extent did the advising services address the cost of your degree?
- If you didn't receive guidance, why not?

**Listen for:**

- Who provided the advice (department or title)?
- Accuracy of advice
- Ease/difficulty of accessing advising services
- Other supports that would have helped.

9. What other resources did you use to prepare for the credit transfer process?

**Probe for:**

- How did these resources help you prepare for the credit transfer process?
- What additional resources should be available to ensure that students are well informed about credit transfer policies and procedures?

**Listen for:**

- Information source and mode of access (e.g., Internet search, college website, paper handouts, meeting with advisor)
- Examples might include transfer guides, or degree pathways guides

10. What tools and information were available to help you determine your career path?

**Listen for:**

- Information on degree and licensure options
- Student understanding of options

11. Next, we'd like to hear about your experience earning transfer credits for your previous coursework or credentials. What happened to your credits when you transferred?

**Probe for:**

- Did you inform your new college that you had credits from another institution that you would like to transfer?

**Listen for:**

- Number of credits earned prior to transfer
- Amount of transfer credit granted
- Student understanding of the transfer process
- Barriers to credit transfer
- Time off before transfer

12. By a show of hands, how many of you did not receive full transfer credit for your previous coursework? What were your options for appealing that decision?

13. What do you wish you had known prior to transferring?



## Appendix D. Analysis Codebook

### Exhibit D1. Analytic codes

Code	Code definition
1. Credit transfer policies	Data describing state policies and IHE processes for various credit transfer pathways, including transfer of a transfer associate's degree, other associate's degrees not designed for transfer, and transfer of other sub-baccalaureate coursework and credentials.
1.1. Transfer associate's degree	Data describing an associate's degree that is specifically designed for transfer into a four-year IHE. This also is known as 2+2 because students with associate's degrees enter the four-year college with junior standing. Also known as block transfer because the associate's degree credits are accepted as a block without course-by-course review.
1.2. Other block transfer	Block transfer in the absence without a transfer associate's degree. May include general education credits or degree-specific ECE credits.
1.3. Other associate's degree	Data describing transfer of credit from other associate's degrees that are not designed for block transfer into a four-year IHE. This may include distinctions made between the associate of arts, associate of science, and associate of applied science degrees.
1.4. Course-by-course transfer	Data describing articulation of credit through course-by-course transfer, whereby decisions are made regarding transfer of individual courses based on review of course descriptions and syllabi to determine course equivalency. This includes transfer credit for prior coursework if students transfer from a two-year program to a four-year program before earning their associate's degree.
1.5. Certificate or non-degree credential	Data describing articulation of a certificate, CDA Credential, or other professional credential into a two-year or four-year degree program.
1.6. Dual enrollment or high school credit	Data describing articulation of dual enrollment from joint high school/community college programs or credits from high school (e.g., career and technical education) into a two-year or four-year degree program. This does not include reciprocity agreements that allow students to enroll at two colleges at once.
1.7. Other transfer pathway	Data describing other pathways for transfer of credit or coursework (e.g., competency-based transfer).
2. Student incentives to transfer	Data describing incentives and other articulation provisions put in place by states or IHEs, such as priority or guaranteed admission policies.
2.1. Priority/guaranteed admission	Data describing priority or guaranteed admission policies or processes for students who transfer.
3. Regional/local articulation agreements	Data describing regional, local, or additional articulation agreements between IHEs, which may supplement or supersede state articulation policy.

Code	Code definition
4. Academic alignment	Data describing how academic programs at two-year and four-year IHEs are systematically aligned at the state level to facilitate transfer. This may include discussion of alignment of curriculum, learning standards, and course competencies; and the adoption of a common course numbering system. This does not include course equivalency review, transcript review, or degree audits conducted for individual transfer students, which should be coded under “IHE articulation/transfer processes.”
4.1. Curriculum, course competencies, and learning standards	Data describing efforts to align curriculum and learning standards across institutions and systems (e.g., across two-year colleges, across four-year colleges, or between two-year and four-year colleges). Common course numbering/naming should not be coded here.
4.2. Common course numbering	Data describing the development, implementation, and maintenance of common course numbering and/or naming systems.
5. Teacher licensure	Data describing ECE teacher licensure/certification considerations. This may include discussion of the state licensure policy, different options for acquiring licensure/certificate, and which credentials lead to licensure.
6. Accreditation	Data describing the intersection of ECE program or college-level accreditation and articulation policies. Includes accreditation from regional accreditors like the Western Association of Schools and Colleges or ECE program accreditors like NAEYC.
7. State governance and oversight	Data describing state-level governance and oversight structures, policies, and processes to develop and maintain articulation policies. This may include descriptions of the administrative structure of the oversight body (e.g., coordinating board, governor’s board) and their role in articulation. Membership of the governance and oversight body should be double-coded under stakeholder involvement.
8. Stakeholders: State policy/oversight	Data describing which stakeholders are involved in the development of state-level articulation policy and/or oversight. Stakeholders may include IHE faculty, IHE staff, state-level policymakers, state-level policy staff, licensing agencies, or ECE workforce development representatives. This also will include discussion of stakeholder roles.
9. State supports for IHEs	Data describing any articulation support or guidance for implementation that is provided by the state for IHEs. State supports for IHEs may include guidance or training on articulation pathways and policies as well as funding.
10. State supports for students	Data describing any articulation support or guidance for implementation that is provided by the state for students. Student supports may include transfer guides or web-based transfer resources. Note that supports and guidance provided by IHEs should be coded separately.
11. Data and evaluation	Data describing data and evaluation practices at the state or IHE level. This may include a discussion of the types of data collected, the purpose and use of the data, and how data and results are shared. This does not include “evaluation” of student transcripts as part of the credit transfer process.
12. IHE supports for students	Data describing institutional resources for students transferring at two-year and four-year IHEs. Include discussion of advising and resources for students; advising topics such as career pathways or degree affordability; consistency of information provided; and effectiveness of information provided to students.

Code	Code definition
13. IHE supports for faculty and staff	Data describing institutional resources to help IHE faculty and staff meet the needs of students before, during, or after the credit transfer process. Training available for student advisors may be coded here.
14. IHE articulation/transfer processes	Data describing the systems, processes, and procedures for articulation and transfer at the institutional level, including the process for review of transfer credit, including course equivalency review based on course descriptions or syllabi, and/or transcript evaluation AKA “degree audits.” May include perspectives from students, faculty, or staff. May be double coded with “IHE supports for students” where applicable.
15. Stakeholders: IHE decisions	Data describing how stakeholders are involved in making decisions and implementing articulation policy within and between institutions. Stakeholders may include IHE administrators, department chairs, ECE faculty, financial aid administrators, and the registrar. This includes coordination between stakeholders at different institutions.
16. Contexts	Data describing policy, economic, workforce, teacher licensure, and institutional context considerations that may have influenced ECE articulation policy or its implementation.
16.1. State policy context	Data describing policy, economic, workforce, teacher licensure that may have influenced statewide ECE articulation policy. Could include IHE system-level concerns that influence state policy.
16.2. IHE implementation context	Includes contextual issues specific to individual IHEs that influence the IHE’s implementation of articulation and transfer policies/procedures for ECE students.
17. Successes	Data describing accomplishments at the state or IHE level regarding ECE articulation. This includes “areas that work well,” as reported by respondents. Text may be double-coded with another code that captures the area of success (e.g., academic alignment, student supports).
18. Challenges	Data describing challenges, barriers, and areas that need improvement at the state or IHE level regarding ECE articulation as well as actions taken to address those challenges. Text may be double-coded with another code that captures the area that is challenging (e.g., academic alignment, student supports).
19. Lessons/advice	Data describing lessons learned about state-level articulation policy and IHE respondents’ advice for state policymakers.
20. Good quote	Used to mark text that contains an illustrative quote from a respondent. This text should be double-coded with another code that captures the substance of the quote (e.g., an illustrative quote about a challenge should be coded under the “Challenges” code as well the “Good quote” code).
21. Motivations for transfer/career goals	Data describing students’ motivation/goals for pursuing a bachelor’s degree and career goals.
22. Transfer experiences	Used to mark text that contains context on student’s experience with the transfer process, what happened to students’ credits during transfer, and the student’s understanding of the transfer process (e.g., how easy, difficult).



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