# CHAPTER 26

# Higher Education for Early Childhood Educators and Outcomes for Young Children

## *Pathways toward Greater Effectiveness*

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Although it is only one of many avenues for the delivery of early childhood professional development, higher education's role is significant and growing. State prekindergarten (PreK) programs, the U.S. federal government, and accreditation systems have raised the bar for early childhood teachers' formal education. Based on national average graduation rates, college and university programs are producing great numbers of degreed early childhood educators—at least 40,000 per year. In turn, a growing pool of degreed teachers has the potential to improve outcomes for great numbers of children.

Numbers, however, do not equal effectiveness. The potential of higher education to be a consistently *effective* component of a professional development delivery system, capable of improving teachers' practices and child outcomes, is far from being realized. By calling into question the relations between teachers' degrees and both classroom quality and children's outcomes, the Early and colleagues (2007) synthesis paper has had the unintended benefit of shifting the higher education focus. Rather than simply debating the merits of degrees versus no degrees, many in the early childhood field are now calling for a closer analysis of the key features and relative quality of higher education programs. In this chapter we aim to contribute to that analysis.

The model outlined in Figure 26.1 illustrates the approach we take in the chapter. Presumably, teachers' higher education should result in better developmental and learning outcomes for the children whom graduates teach and the families with whom they work. However, as the model suggests, the relationships are complex.

Many factors, including the resources and supports afforded by teachers' current work environments, make it easier or more difficult for graduates to implement what they have learned in their college years; that is, teachers' practices, and the outcomes of those

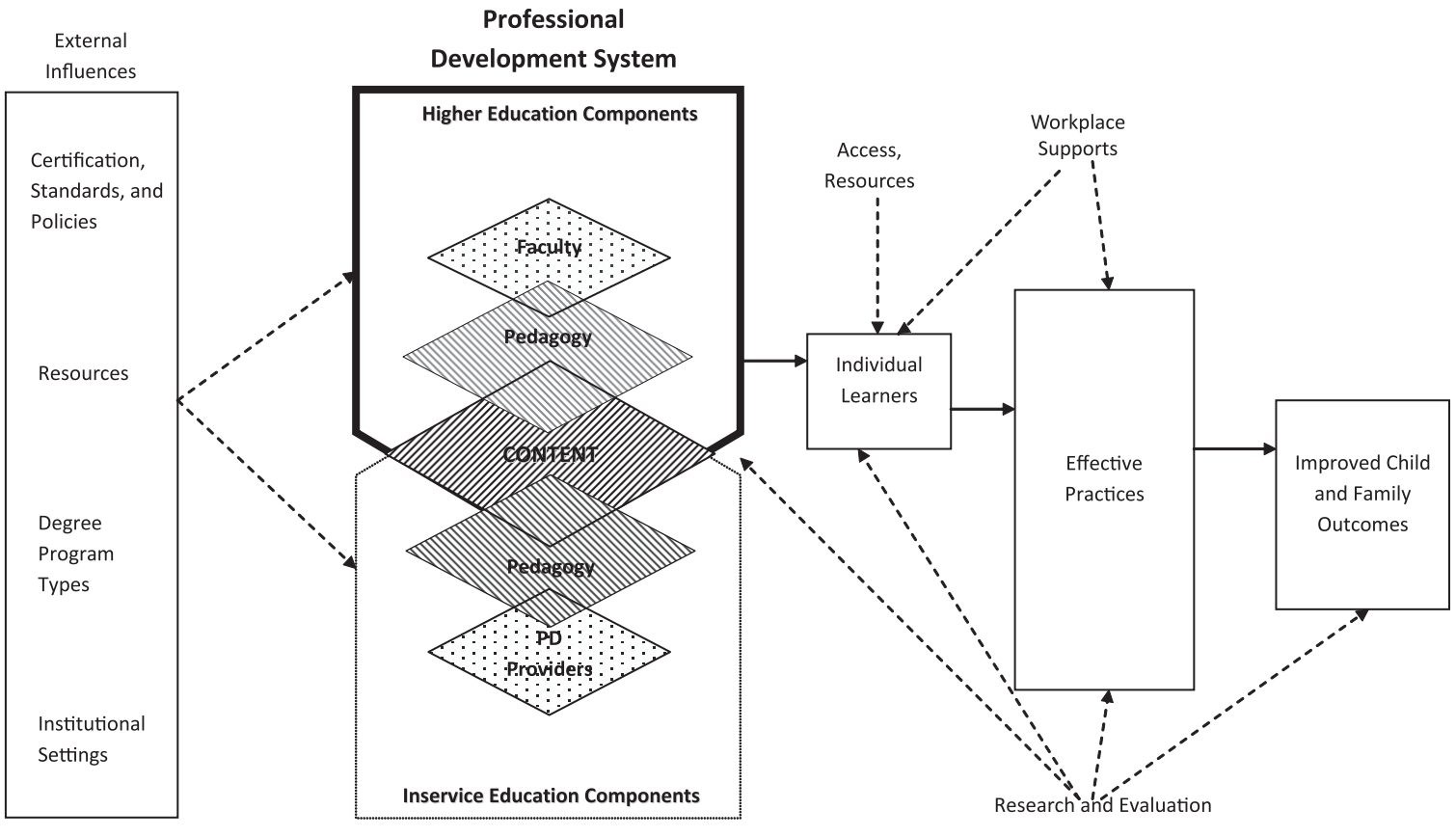


**FIGURE 26.1.** Professional development system, practices, and outcomes: Contexts and pathways. (The higher education component of the early childhood professional development system is the focus of this chapter.)

practices, are not simply a direct product of teachers' experiences within higher education. Additionally, practices are implemented by individuals who differ from one another in many ways: by culture and ethnicity, experience and skills, beliefs and dispositions, readiness for change, and other factors. These individuals also differ in their access to financial and other resources that facilitate or hamper their entrée into and experience within the higher education system.

The potential of the higher education system to affect learners positively is equally complex. Within the "proximal" higher education system—that which most directly affects learners' practices—are the interconnected elements of *faculty, content*, and *pedagogy*—in a sense, the "who," the "what," and the "how" (National Professional Development Center on Inclusion, 2008) of the delivery of higher education. Each of these elements varies in quality and defining features, and each, separately and together, may influence how higher education shapes college graduates' practices in early childhood education settings.

From a more distal perspective, the preparation of early childhood educators within higher education programs is also influenced by each program's institutional setting, specific program/degree type, and available resources. Preparation programs also operate within an array of regulations and professional expectations, ranging from state teacher licensure requirements to national standards used in accreditation, to degree requirements enacted by state and federal bodies.

As Figure 26.1 illustrates, it is also important to note that higher education does not—or rather, should not—operate in isolation. Higher education is part of a larger system of early childhood professional development (Hyson & Whittaker, 2012), which includes community-based training or "inservice" education. And, in turn, early childhood professional development is only one part of a complex and evolving early childhood system (Kagan & Kauerz, 2012).

An ecological perspective is necessary to represent this complexity. Accordingly, we begin by providing a description of the multiple settings and contexts for early childhood higher education today. With that context in place, we take a closer look at what is inside the higher education "black box"—the content and delivery of early childhood higher education, and the role of professional preparation standards and accreditation. Next, we focus on faculty, beginning with a description of the higher education workforce. Drawing on several recent surveys, we describe what is known about the knowledge base, beliefs, and attitudes of early childhood faculty. This section concludes with a discussion of professional development for higher education faculty.

The critical issue of higher education's impact on educators' practices and child outcomes is the focus of the next section of this chapter. We briefly review what is known about the general association between degrees, program quality, and child outcomes, but we spend more time analyzing what is known and not yet known about the impact of specific features of higher education on the outcomes of interest.

Next we note a few examples of recent reforms and innovations in early childhood higher education that may have potential to produce more effective practices in the future. Examples include systems-level innovations, national resources to build faculty capacity, and innovations in individual higher education programs.

In the final section of the chapter we summarize current gaps in the research base and policies needed to improve early childhood educators' preparation. This discussion leads to specific recommendations for addressing these issues.

Throughout this chapter certain themes recur. Perhaps the major theme is the sheer lack of research evidence on most of the critical issues in early childhood higher education. This was the case more than a decade ago (Horm-Wingerd, Hyson, & Karp, 2000) and it continues today, with recent surveys of higher education programs providing some new

information but carrying all the limitations of self-report data. A second recurring theme is the continuing mismatch between "business as usual" in higher education and the evolving, diverse characteristics of faculty, students, children and families, and the programs that serve those children and families. Yet another theme is early childhood teacher education's frequent isolation from both the larger system of early childhood professional development and the general field of teacher education, including early childhood's ambivalent relationship with the often-overlapping domain of elementary teacher education.

## Settings and Contexts for Higher Education Today

In the past, preparation to work with preprimary-age children was based in a range of academic units, including home economics, child development, child psychology, education, and allied fields such as nursing. Similar diversity continues today. However, the higher education landscape has changed in other, important ways. Today's context includes an increased demand for personnel with specialized early childhood knowledge; more potential work roles and settings for graduates; more states with stand-alone teaching licenses for early childhood educators; and an increased number of licenses/certificates and other credentials that further complicate the demands for transfer and articulation between 2- and 4-year institutions of higher education (IHEs). In fact, the contexts for early childhood teacher preparation appear more complex than those for elementary- or secondary-level preparation (Whitebook, Gomby, Sakai, & Kipnis, 2009), challenging the field's attempts both to describe and improve current practices.

The early childhood field continues to strive for recognition as a profession. This effort provides a context for, and raises questions about, the current and future role of higher education in that profession. For instance, do the policies, career pathways, and professional development systems—including the teacher education system—that have evolved for the K–12 teacher workforce provide the right model for early childhood? In light of the movement to create a seamless educational system from PreK through third grade, and the beginning policy discussions of a preschool to college (P–16) approach (Education Commission of the States, 2010), the obvious answer would be "yes." Yet the loosely configured early childhood system, with multiple sectors having distinct histories, funding, policies, and standards, creates a different context than that within which traditional K–12 public school teachers have been educated. In this more complex early childhood context, even something as seemingly simple as defining who is an early childhood "practitioner" becomes fraught with differing definitions and opinions. Models from fields other than education may need to be taken into consideration. To that end, a recently convened Committee of the National Academies/Institute of Medicine on the Early Childhood Care and Education (ECCE) Workforce is examining issues of how to define and support the ECCE workforce as a profession, drawing from a model developed for evaluating emerging health professions (Dower, O'Neil, & Hough, 2001). These and other contextual issues have clear implications for discussions about the role of higher education for the early childhood field, and we return to them in later sections of this chapter.

### *Number of Programs and Students*

Based on data collected in 2004, Maxwell, Lim, and Early (2006) estimate that approximately 1,350 IHEs offer some type of early childhood education degree program. Maxwell and colleagues report that approximately 44% of these IHEs offer baccalaureate (BA)[1] and/or graduate degrees, and 56% offer associate degrees.

### *Associate Degree Programs*

Maxwell and colleagues (2006) found that most of the 750 associate degree programs were housed in community colleges, located in an academic department called "Early Childhood" or "Child Development," and offered a range of degrees, including Associate of Arts in Sciences (AAS), Associate of Arts (AA), or the newer Associate of Arts in Teaching (AAT). Usually, the AA degree is designed for students planning to transfer to a 4-year institution; thus, the focus is on general education. The AAS and AAT degrees are often referred to as "workforce" degrees that prepare students to enter child care, Head Start, or other work settings immediately after attaining the associate's degree. Given this goal, the primary focus of these degrees' courses and fieldwork is on building specialized knowledge in child development and early childhood education theory and practice, not on general education.

In meeting the needs of the workforce, community colleges are increasingly involved with the Child Development Associate (CDA) credential, a national credential created in 1971 by the Council for Professional Recognition to improve the quality of child care and Head Start, and to recognize staff competencies acquired through work experience (Council for Professional Recognition, 2006; Winton & West, 2011). Although the CDA was initially developed outside of higher education, one current path to achieve the credential is though the CDA Professional Preparation Program. This program, designed for early childhood practitioners without degrees, combines college courses with fieldwork and mentoring. The credential is awarded to candidates who demonstrate competency in six areas relevant to all early childhood settings serving children from birth to age 5 (Winton & West, 2011). Hyson, Tomlinson, and Morris (2009) found that 80% of associate degree programs reported offering the CDA or other nondegree certificate. Potentially strengthening the link to higher education, many community colleges also make it possible for CDA candidates to translate their CDA into academic credit, although the number of credits is usually quite limited.

### *BA Programs: Influence of Teacher Licensure and Institutional Home*

Based on the Maxwell and colleagues (2006) data, approximately 600 BA-level early childhood education programs exist within IHEs. These programs are diverse in their content, orientation, and goals for graduates in part because of differences in state teacher licensure[2] requirements (Hyson et al., 2009) and in institutional characteristics. States vary greatly in the scope of early childhood licensure, encompassing birth to age 5, birth to age 8, PreK to grade 3, PreK to grade 4, and numerous other configurations—with equally great variations in expected competencies and coursework. The New America Foundation's recent report (Bornfreund, 2011) on early childhood licensing and preparation describes variations across states as well as many instances of licensure overlap within a single state. In Wyoming, for example, there are four different teacher licensure options (birth to age 5; ages 3–5; age 3 to third grade; and K–6). Depending on the license a student seeks, exposure to specific early childhood content may vary considerably (Bornfreund, 2011).

Especially at the BA level, programs that prepare early childhood educators are frequently housed in one of two institutional homes—in a unit allied with the study of human development, or in a department, school, or college of education. Traditionally, these two affiliations have produced programs with different orientations, with the human development programs emphasizing child development and ecological contexts, and the education programs emphasizing pedagogy and academic content. Although the early childhood field now sees all these bodies of knowledge as essential in professional preparation (National Association for the Education of Young Children [NAEYC], 2009), interprogram divides remain. For example, in survey and interview responses from early childhood education

program faculty members at 40 major public research universities, Johnson, Fiene, McKinnon, and Babu (2010) found that half of the respondents said that their institution's early childhood and elementary education programs functioned as completely separate entities. The remaining 50% of respondents reported a range of interprogram relationships, with only 15% of those relationships described as positive.

This summary of higher education in early childhood education (ECE) contexts reflects the same complexity and fragmentation that is seen in other aspects of the early childhood field. Early childhood higher education programs serve a range of purposes and constituencies, occur in diverse and often "siloed" settings, and overlap with but are not identical to other professional preparation systems.

## Policy Trends and Cost Issues

Policy and cost issues are also key to understanding higher education's role in the early childhood field. These include trends in degree requirements, the costs of meeting those requirements, and efforts to provide support to those seeking higher education and those aiming to improve the system.

### *Policy Expectations for Degrees and Credentials*

Federal and state policymakers have increased requirements for teachers of young children to have degrees, with the BA becoming the new target. A notable example is the recent reauthorization of the Head Start Act, requiring that by 2013 all Head Start teachers will have a minimum of an associate degree and 50% of those teachers will have earned a BA in early childhood (Improving Head Start for School Readiness Act, 2007). Barnett, Epstein, Friedman, Sansanelli, and Hustedt (2009) reported that 26 of 51 state-funded PreK initiatives now require the BA. Other higher education policy levers are found within state quality rating and improvement systems (QRIS) that tie higher ratings to higher levels of staff formal education and credentials (LeMoine, 2008).

### *Costs of and Support for Acquiring a Degree*

A report from the National Center for Education Statistics (Knapp, Kelly-Reid, & Ginder, 2009) found that average 2008–2009 academic year tuition and required fees for full-time, in-state undergraduates in 4-year programs at public IHEs totaled $6,070; in 2-year programs, in-state tuition and fees were $2,830. For out-of-state undergraduates in 4-year programs, the charges averaged $14,378, and in 2-year programs, $6,118. Private not-for-profit 4-year IHEs reported charging $20,112, and private not-for-profit 2-year programs averaged $9,987. Finally, private for-profit 4-year IHEs reported charging an average of $15,521, with 2-year IHEs in this category charging $13,073. These charges are for one academic year only; also, the estimates do not include books and other nonrequired but often essential expenses.

Those seeking higher education in the early childhood field are often returning adult students with low salaries and multiple work/family responsibilities, with associated extra costs such as child care. LeMoine (2008) emphasizes that the costs of both initial preparation and ongoing professional development pose an "enormous financial burden" for individuals and for early childhood programs that attempt to support further education for their staff. Ackerman (2004) estimated that an average PreK teacher would need to spend

more than one-third of his or her salary to attain a BA. In addition to tuition costs, early childhood educators must also consider the opportunity costs of delaying employment or taking time off to complete training while employed full time (Bueno, Darling-Hammond, & Gonzales, 2010).

Initiatives such as T.E.A.C.H. (Teacher Education and Compensation Helps) aim to address this issue by providing scholarships and guaranteeing that those who complete their associate or BA degrees receive either salary increases or bonuses. As of spring 2010, 20 states had adopted the T.E.A.C.H. strategies (T.E.A.C.H. Early Childhood Assistance & Quality Assurance Center, 2010). With a similar aim, the Higher Education Opportunity Act contains provisions for states to implement loan forgiveness and compensation incentives for early childhood educators who obtain associate or BA degrees (LeMoine, 2008). Head Start programs often have financial assistance and supports available for staff to seek higher education. The Office of Special Education Programs (OSEP), U.S. Department of Education, has a long history of providing stipend support for undergraduate and graduate students as part of their grant program to improve the quality and quantity of special education personnel (Kleinhammer-Tramill, Tramill, & Brace, 2010). Some of these OSEP stipends have supported students in early childhood programs with a focus on inclusion. Private philanthropy also contributes through scholarships or loan forgiveness, although these programs typically target individuals or small groups of students in specific geographic regions (e.g., see Goble & Horm, 2009). Although foundations fund professional development to enhance early childhood programs (National Child Care Information Center [NCCIC], 2009), no estimates of the scope or reach of these efforts are currently available.

Early childhood advocates have called attention to the need for higher education mandates to be accompanied by adequate funding. LeMoine (2008) identifies four specific targets: (1) funding to enable early childhood professionals to obtain the expected level of education; (2) funding for programs and workplaces to facilitate professional development through release time, substitute staff, and other forms of assistance; (3) a system of rewards and compensation parity initiatives to promote attainment of additional education; and (4) funding for statewide infrastructure, with components such as data systems, support to colleges and universities, quality assurance systems, and other related systems. Some progress has been made. For example, Pennsylvania has recently increased state support for T.E.A.C.H. scholarships and has begun a voucher reimbursement program to help teachers earn degrees (Hyson & Whittaker, 2012); Maine used ARRA (American Recovery and Reinvestment Act) funds to support scholarships for early childhood practitioners; Ohio has created a Center for Early Childhood Development to reduce duplication and to align standards and quality improvement across sectors (NAEYC, 2011); and the state of Montana funds the Early Childhood Project at Montana State University, which in turn supports a higher education consortium that oversees the state's professional development plans and activities (LeMoine, 2008).

Even if such supports are in place, a cautionary note is sounded by data from Herzenberg, Price, and Bradley (2005) documenting a decline in the percentage of BA-level teachers and administrators in center-based settings, from 43% in 1983–1985 to 30% in 2002–2004. Interpreting these findings, the authors note that the decline coincided with rapid increases in education levels of the U.S. workforce as a whole, highlighting the negative impact of ECE working conditions, especially compensation, as competing work options became available. Additionally, in 2005, Herzenberg and colleagues projected the most educated generation of ECE teachers was due to retire over the following 15 years, further exacerbating a severe personnel shortage. In light of these broad labor force trends, Herzenberg and colleagues urge policymakers to combine their calls for enhanced teacher

credentials with pragmatic strategies such as phase-in periods and differentiated staffing models.

## Program Content, Professional Preparation Standards, and Program Delivery Issues

With the diverse contexts of the early childhood higher education system in mind, and with these policy issues as background, we turn to a description of what is taught in early childhood higher education programs. We outline content priorities and use the results of several surveys to describe how these are included in professional preparation programs. Next we discuss the standards or student competencies that professional associations use to describe and assess higher education program quality. We conclude the section by outlining some issues in program delivery, including distance learning and opportunities for student engagement in class and field experiences.

### *Program Content*

#### *Content Priorities*

Analysis of program content is essential when assessing the quality and relevance of higher education. Research reviews and national reports underscore several key priorities, including (1) content related to current knowledge in the developmental sciences—child and adolescent development, cognitive science, and neuroscience—and its implications for teaching and learning (Pianta, Hitz, & West, 2010); (2) content related to current knowledge and pedagogy in core academic disciplines, including early mathematics and literacy (National Early Literacy Panel, 2009; National Research Council, 2009; Strickland & Riley-Ayers, 2006); (3) content related to the characteristics and needs of the growing number of young children with disabilities in ECE settings (U.S. Department of Education, 2010), who are ethnically and linguistically diverse (U.S. Census Bureau, 2005), or who have challenging behaviors (Dunlap et al., 2006); and (4) especially for BA and graduate programs, content on the characteristics and needs of adult learners (Snyder & Wolfe, 2008).

Having identified these priorities, one must ask whether they have penetrated the content of early childhood higher education programs. The primary source of information on this issue comes from national- and state-level surveys in which respondents have been early childhood program faculty or administrators (e.g., Early & Winton, 2001; Hyson et al., 2009; Johnson et al., 2010; Lobman, Ryan, & McLaughlin, 2005; Maxwell et al., 2006; Ray, Bowman, & Robbins, 2006). Besides having the limitations of self-report data, the survey results also do not yield much information about the depth or quality of content; for the most part, the studies simply have asked respondents whether certain courses were offered or topics were "covered." Additionally, research provides no guidance about how much "coverage" is adequate, and there is only limited information from K–12 teacher education (e.g., Kim, Andrews, & Carr, 2004) about the relative merits of integrating topics throughout a teacher preparation program rather than addressing them in separate courses or field experiences. Finally, discussions of content "coverage" do not address the question of whether the content is consistent with current research, or whether it is well taught—issues that we address in a later section of this chapter.

Keeping these limitations in mind, the results from these surveys and other sources indicate that although certain broad topics (e.g., the education and care of preschool-age children) are likely to be covered in coursework and practica in most programs, other content

receives uneven and inadequate coverage. The following examples are organized around the content priorities outlined earlier.

### *Developmental Sciences*

As compared to elementary and secondary teacher education, traditionally ECE programs have had a strong emphasis on child development knowledge—although aspects of this emphasis have been criticized (Goffin, 1996). Yet even in this content area there is evidence that coverage may be mismatched to the developmental scope of the early childhood field: For example, in a national survey of all CDA, associate degree, BA, and graduate teacher education programs (Maxwell et al., 2006), only 49% of the bachelor's programs that claimed to include the birth to age 3 range in their degree program required at least one infant/toddler course.

### *Content in Literacy and Mathematics*

The strong emphasis on literacy in state early learning and licensure standards has ensured that—at least in terms of number of courses—coverage is extensive, with 77% of BA programs reportedly offering at least one dedicated course on this topic (Maxwell et al., 2006). However, Early and Winton (2001) found that fewer than 10% of the programs required a course in working with young dual language learners, and this was the least likely content area to be required during a practicum experience. Coverage of this topic did not substantially improve by the time of the Maxwell and colleagues' (2006) follow-up, when fewer than 15% of programs reported requiring such a course. Mathematics continues to receive less coverage than literacy, with 77% of BA and 65% of associate degree programs requiring a literacy course, compared with 59% (BA) and 49% (AA) requiring a numeracy or math course for young children.

### *Disabilities and Challenging Behavior*

Concerns about adequate emphasis also arise when examining course offerings related to children with disabilities or challenging behaviors. Of the large percentage (80%) of BA programs that indicate their primary mission includes preparing early childhood special educators/early interventionists, only 60% require one or more courses on working with children who have disabilities (Chang, Early, & Winton, 2005; Early & Winton, 2001). Ray and colleagues (2006) report similar findings. They conducted a website analysis of the program and course descriptions of 226 BA early childhood programs to ascertain the content foci of these programs, with specific reference to diversity issues, and found that, on average, disability content was addressed in only 12.8% of total required semester hours, with time devoted to this content ranging from 0 to 43 semester hours.

With respect to coverage of issues around young children's challenging behavior, Maxwell and colleagues (2006) found that slightly more than half of BA (53%) and associate degree programs (53%) required a separate course on social and emotional development, where this content may likely be addressed. Additionally, 65% of BA programs and 57% of associate degree programs required a course on classroom or behavioral management.

### *Cultural and Linguistic Diversity*

The area of cultural and linguistic diversity appears to lack adequate emphasis, especially in light of changing demographics. Maxwell and colleagues (2006) found that that the

majority of programs did not require even one course on working with children and families from diverse ethnic and cultural environments. Again, with a specific focus on diversity, the Ray and colleagues (2006) study of BA programs found a similar lack of attention to this content area, with only 12.5% of the total required semester hours specifically targeted toward diversity education, and only 7% of the programs requiring student teaching in a setting described as diverse or multicultural.

### *Adult Development and Learning*

The coverage of content on adult learning is also worthy of examination, especially at the BA and graduate levels. Over time, some graduates of these programs may move into higher education faculty positions, most often serving the growing number of nontraditional students pursuing higher education (Zaslow, Tout, Halle, Whittaker, & Lavelle, 2010). Often motivated by higher salaries, other graduates may move out of positions in child care to work with adult learners as supervisors and professional development providers or in resource and referral agencies (Whitebook, Sakai, & Kipnis, 2010). The Maxwell and colleagues (2006) survey found that about 40% of BA or graduate programs did not require any coursework in adult learning and development.

The preceding section describes coverage in some critical content areas, identifying possible gaps or inadequate coverage. As noted earlier, however, we do not know what "thresholds" determine sufficient content coverage, or whether exposure to specific content results in improved practices. The next section moves us closer to the practice issues by examining outcome standards or student competencies for professional preparation programs and how those are used in program accreditation.

## *Links from Content to Competencies through Standards and Accreditation*

Focusing on course content alone provides a very limited picture of higher education programs' effectiveness or adequacy. Of greater importance is whether programs are building competencies in early educators. Two distinct but related sets of standards, which include specific competencies organized within key content areas, have been developed by national organizations to guide the preparation of early childhood practitioners. NAEYC has standards for programs preparing "general" early childhood educators to work with children from birth to age 8 (Hyson, 2003; NAEYC, 2009), and the Council for Exceptional Children/Division of Early Childhood (CEC/DEC; 2008) has standards specific to programs preparing early childhood special educators and early interventionists serving children from birth to age 8. The standards from both associations are organized by content domain and are differentiated by level (e.g., "initial" vs. "advanced" teacher preparation). Within each content domain are specific competencies that describe what graduates must know and be able to do to meet the standards.

### *Using Standards for Program Review and Accreditation*

Although the standards provide important guidance for higher education programs, their use is voluntary. The primary way that national standards shape higher education programs is through accreditation. Using its standards, NAEYC recognizes early childhood BA and advanced-degree programs in schools of education accredited by the National Council for Accreditation of Teacher Education (NCATE) (NAEYC, 2009; Willer, Lutton, & Ginsberg, 2011). NAEYC standards are organized around six areas in which programs' graduates must demonstrate competence: (1) promoting child development and learning; (2) building

family and community relationships; (3) observing, documenting, and assessing young children; (4) using developmentally effective approaches to connect with children and families; (5) using content knowledge to build meaningful curriculum; and (6) becoming a professional (NAEYC, 2009). In reviewing programs, both NAEYC and other professional associations that participate in accreditation or similar credentialing systems (e.g., the CEC/DEC; the National Board for Professional Teaching Standards) have moved toward a strongly performance-based approach that relies less on counting courses and credits than on valid documentation by a program that its graduates have gained knowledge, skills, and professional dispositions aligned with the relevant professional standards. Independent of NCATE (which only accredits at BA and graduate levels), NAEYC has recently established a system to review and accredit associate degree programs through the NAEYC Commission on Early Childhood Associate Degree Accreditation (ECADA). Using the same NAEYC core standards and a review process comparable to that of NCATE, this accreditation system not only promotes the use of NAEYC standards to guide personnel preparation in 2-year degree granting programs but also helps to promote the articulation or transfer of credits from 2-year to 4-year degree-granting IHEs.

Seven states have "blended" licensure or certification for early educators, usually as one of several licensure options (Bornfreund, 2011).[3] Blended licensure is intended to combine preparation in general early childhood education and early childhood special education (Stayton et al., 2009). In states offering a blended licensure options, a number of IHEs have designed blended preparation programs at the BA and master's levels. Those blended programs undergoing NCATE review must meet the review criteria for both NAEYC and CEC/DEC personnel standards.

### *Accreditation and Higher Education Quality*

Only 363 BA and graduate programs have received NAEYC/NCATE accreditation, approximately two-thirds of the total number of BA programs with an early childhood emphasis (Bornfreund, 2011). The question of whether early childhood program accreditation is associated with other indicators of quality has been addressed in a few studies. Hyson and colleagues (2009) examined the association between NCATE accreditation and faculty-reported program climate, priorities, and other factors, and found no significant differences between accredited and nonaccredited programs. Lim, Maxwell, Able-Boone, and Zimmer (2009) and Ray and colleagues (2006) did a similar comparison, looking specifically at the relationship between diversity coverage and NCATE/NAEYC accreditation. Again they found no significant differences between accredited and nonaccredited programs. Obviously, these findings raise questions about accreditation as a potential measure of program quality, yet many institutions are not members of NCATE and so are not eligible for NAEYC's program review. Other institutions may be eligible yet choose not to participate for varied reasons.

Although simple comparisons of accredited versus nonaccredited programs are problematic for the reasons just outlined, it is possible to sample only those programs reviewed for accreditation, comparing those that were or were not successful in terms of critical outcomes such as graduates' teaching practices. Such research would also have the benefit of identifying ways in which the accreditation process might be improved. Comments by faculty in Hyson and colleagues' (2009) study suggest that most see benefits in the accreditation process; for example, creating a shared focus on standards and quality improvement. Anecdotal reports also suggested that faculty members view accreditation as instrumental in securing program resources. Additional research could verify whether these self-reported benefits indeed are reflected in changes in programs' priorities, structure, or instructional practices. More generally, the recent creation by NCATE and TEAC (Teacher Education

Accreditation Commission) of a new accrediting body, the Council for Accreditation of Educator Preparation (CAEP), affords an opportunity to conduct research on accreditation standards and accreditation options in light of their potential impact on teaching practices and learning outcomes for early childhood education, as well as other areas.

It appears that the competencies presented in national standards for preparing personnel in higher education have potential to help programs move beyond courses and credits, focusing on what graduates should know and be able to do. Yet again we see that lack of research leaves the early childhood field uncertain about whether that potential is being realized.

## *Program Delivery*

Having examined program content and standards, we conclude this section with a brief discussion of some options and issues in program delivery.

### *Online Program Delivery*

Online ECE program delivery has become a frequent option at both 2- and 4-year IHEs. Johnson and colleagues (2010) report that 72.5% of the 40 ECE BA programs surveyed use some form of online learning, and several respondents stated that new online master's programs are being developed. However, the study did not probe these issues further. A national review of distance learning programs in early childhood professional development (Center for the Child Care Workforce, 2007) identified a number of entirely online ECE degree programs. Of the 73 educational institutions and training programs surveyed for that report (all of which were known to offer distance learning programs), 27 offered distance coursework leading to the associate's degree and 42 had online BA or MA degree options. It has been noted anecdotally that faculty barriers may stand in the way of continuing growth in the implementation of distance learning programs. Some early childhood faculty members seem unwilling to teach online because of their strong preference for personal relationships with students; many believe that early childhood content cannot be adequately delivered online; and many are "digital immigrants" who are unfamiliar and uncomfortable with online learning (C. Donohue, personal communication, July 21, 2010). However, little systematic information is available about these tendencies, and even less is known about the effectiveness of various distance education and technology systems in early childhood teacher preparation—making these topics ripe for research.

We also lack data on the extent to which students in higher education programs are actively engaged in content, exposed to video or live demonstrations of research-based instructional strategies, or have opportunities to develop and practice applying these strategies in real settings with guided feedback. Effective professional development is characterized by these kinds of learning opportunities for students (Pianta et al., 2010; Trivette, 2005; Winton, 2010), yet it seems that textbooks and coursework continue to focus heavily on general content knowledge, with inadequate attention to research-based teaching and intervention strategies. Child development laboratory schools, whose missions include early childhood teacher preparation, offer a potentially effective environment for modeling and coaching theory- and research-based practice. However, not all teacher preparation programs have access to a lab school and, similar to other initiatives discussed, little research has focused on the efficacy of lab schools in fulfilling their teacher preparation mission (Monroe & Horm, in press).

More generally, solid descriptive information is not available on hours and settings used for early childhood field experiences, including student teaching. Additionally, there is little

evidence that field experiences are meeting the need for students to observe, implement, and receive feedback on effective practices. Reflecting the more general concerns in NCATE's (2010) report on clinical practice, the Johnson and colleagues (2010) survey and interview study of higher education programs for early educators in 40 states found that relatively few programs linked content topics (e.g., science) directly with clinical practice/fieldwork. The study also found that the absence of high-quality field placement sites and lack of supervisors was a major faculty concern. Finally, some early childhood teacher candidates do their student teaching at their own workplace, an arrangement that does not often provide students with strong coaching or mentoring (Whitebook, Gomby, Bellm, et al., 2009).

Looking back at this section of the chapter, clearly there is much to learn about the content, professional preparation standards, and delivery of higher education programs for early educators. Survey research highlights content areas that may need strengthening. However, the implications of different patterns of content coverage, the effects of national standards and accreditation on program quality, and the effects of variations in program delivery are far from being understood.

## Faculty in ECE Programs

Whatever the overall program content and delivery systems, what students get out of their experiences in higher education depends to a great extent on the characteristics of those who are teaching, supervising, and mentoring them. These characteristics include not only the demographics of faculty training, experience, and ethnicity but also faculty knowledge, beliefs, and pedagogical skills. Decisions made by individual instructors (e.g., how much time to spend on mathematics within a general early childhood curriculum course) and by program or department faculty (e.g., how much to emphasize infant/toddler programming) influence teacher education quality and may increase or decrease the likelihood of graduates' implementing practices that can positively affect child and family outcomes. Unfortunately, except for demographic descriptions, information on early childhood faculty members, such as their knowledge, professional beliefs, and pedagogical skills, is limited.

### *What Is Meant by "Early Childhood Faculty"?*

Definitional issues have perplexed the early childhood field (Maxwell, Feild, & Clifford, 2005), and the definition of "faculty" is one more example. In K–12 teacher education, Cochran-Smith (2003) has proposed that the term "teacher educator" should include all those with responsibility for preparing future teachers. However, demographic information on early childhood faculty has typically been collected only on those full- and part-time instructors who are part of the core early childhood program, rather than on general education faculty, field supervisors, and school-based cooperating teachers. This data gap limits our knowledge of the full range of "faculty" characteristics.

### *Demographics of the Early Childhood Faculty*

Keeping those limitations in mind, the most recent higher education data on early childhood faculty were collected in 2004 by an FPG (Frank Porter Graham) Child Development Institute team (Maxwell et al., 2006), replicating the methods and expanding the sample used in a previous FPG study (Early & Winton, 2001). Information was gathered from telephone interviews with early childhood program heads from 1,179 institutions of higher education offering certificates or degrees ranging from CDA to the master's degree, about many

characteristics of the higher education work force, including full-time/part-time status, number of students served, race/ethnicity, educational background, and work experience. Noteworthy findings include the following: (1) Across ECE degree levels, 57% of faculty were part time, with significantly more (69%) associate degree faculty being part time; (2) ECE program faculty members included significantly more part-time faculty and had substantially greater teaching and supervising responsibilities than faculty members across all disciplines at their institution (Early & Winton, 2001); (3) 80% of full-time faculty members were white and non-Hispanic, with only slightly more diversity among part-time faculty; (4) education varied by type of program, with over half of faculty in BA programs having a doctorate, compared with less than 10% of associate degree program faculty; (5) compared with faculty in BA programs, substantially more faculty in associate degree programs had direct experience working with children under age 4, and substantially more had an academic degree specifically focused on birth to age 4.

### *Implications of Data on Faculty Characteristics*

Although these data were collected a number of years ago, other studies continue to examine their implications. For example, data from these studies have been used to explore ethnic disparities between the composition of the faculty and their college/university students (especially at community colleges), and the diversity of young children and families (e.g., Chang et al., 2005; Lim et al., 2009; Ray et al., 2006). For example, one follow-up study using the FPG data (Lim et al., 2009) found significant correlations between the proportion of nonwhite faculty in early childhood programs and the extent to which courses on diversity were provided, although the study could not identify causal relationships or underlying mechanisms.

## *What Should Early Childhood Teacher Educators Know and Be Able to Do?: Faculty Competencies*

The early childhood field has identified competencies for graduates of professional preparation programs (NAEYC, 2009), and many states have also identified competencies for teachers of young children (Center for the Study of Child Care Employment, 2008; Winton & West, 2011). Beyond requirements for ECE faculty degree specializations (NAEYC, 2010), little attention has been given to defining competencies for early childhood faculty. The Association of Teacher Educators (ATE; 2008) has developed standards applying to all teacher educators, along with a discussion of their implications (Klecka, Odell, Houston, & McBee, 2009). However, the ATE standards have not been endorsed by ECE-specific professional organizations such as NAEYC and the National Association of Early Childhood Teacher Educators.

## *What Do Early Childhood Teacher Educators Actually Know and Do?*

Although there is not yet consensus about desired competencies for early childhood teacher educators, a number of studies provide information about their knowledge, beliefs, and attitudes, and pedagogical skills.

### *Faculty Knowledge*

A number of authors have expressed concerns about faculty members' knowledge in specific content areas (e.g., Daniel & Friedman, 2005; Hemmeter, Santos, & Ostrosky, 2008;

Hyson et al., 2009; Lobman et al., 2005; Ryan & Hyland, 2010). Direct evidence on this issue is limited, however.

A few studies of self-reported faculty knowledge have identified apparent knowledge gaps in areas such as brain development (Gilkerson, 2001) and mathematics education (Hyson, 2008). Additional insight is provided by a recent survey of early childhood teacher education faculty and administrators about their programs' quality improvement efforts (Hyson et al., 2009). Some responses suggested that the faculty knowledge base is not always consistent with the current developmental and educational research. For example, only 35% of BA program faculty prioritized the goal of helping students to have "more frequent and developmentally supportive interactions with individual children," despite strong evidence for this practice's importance (e.g., Pianta & Stuhlman, 2004). In the same study, faculty members were asked an open-ended question about what theories and research they rely on in making decisions about their programs' overall content. Many respondents chose not to answer this question; the responses of some who did answer it reflected an outdated or limited knowledge base (e.g., Piaget was a frequently cited influential theorist, while Vygotsky and others with more recent theoretical perspectives were underrepresented). Some other faculty members—not the majority—gave answers such as "developmentally appropriate practice" or "Reggio Emilia" as the sources of influential research for their program.

In a similar faculty survey about early childhood mathematics education (Hyson, 2008), many faculty members gave vague responses to a question about what they teach students about specific math curricula, suggesting that perhaps students are not introduced to any curriculum models. Many respondents were also vague in responding to a question about what math-related competencies they want their students to gain, suggesting a lack of precision in their own knowledge.

Obviously, the whole domain of faculty knowledge is critically important. Yet beyond a few self-report studies that do raise concerns, evidence about this domain is lacking.

### *Faculty Beliefs and Attitudes*

Like faculty knowledge, the beliefs and attitudes of early childhood faculty have received little attention from researchers. As part of a recent study (Johnson et al., 2010), faculty in 40 public research-intensive institutions across the United States were surveyed on a range of issues, including faculty attitudes about the impact within their institutions of state PreK and the PreK–grade 3 movement. Another relatively large-scale study (Forer, Rochon Flanagan, & Beach, n.d.) surveyed Canadian ECE faculty members on their attitudes toward the quality of students, the national ECE curriculum, and the quality of child care. Other research, usually with small samples, has focused on faculty members' beliefs about issues such as behavior management (La Paro, Siepak, & Scott-Little, 2009), team teaching (Hestenes et al., 2009), and diversity constructs (Maude et al., 2010). Although some insights can be gained from these studies, they have not been part of a comprehensive, programmatic approach to understanding faculty beliefs and attitudes, or the relation between those beliefs and other aspects of higher education.

### *Skills of ECE Faculty*

Research on faculty skills is even more limited than that on faculty knowledge and beliefs. As noted earlier, the early childhood field has not identified specific skills for early childhood faculty, although general faculty standards have been developed by the ATE (2008) and presented in its *Standards for Teacher Educators*. The first category within ATE's standards is Teaching. Faculty should "model teaching that demonstrates content and professional

knowledge, skills, and dispositions reflecting research, proficiency with technology and assessment, and accepted best practices in teacher education." The ATE standards also delineate desired faculty skills in eight other standards categories (Cultural Competence, Scholarship, Professional Development, Program Development, Collaboration, Public Advocacy, Teacher Education Profession, and Vision). No systematic efforts have yet been made to assess early childhood faculty on these dimensions.

Another potentially important dimension for future research, not captured by the ATE categories, is skill in creating supportive faculty–student relationships. In K–12 teacher education research, Darling-Hammond, Holtzman, Gatlin, and Heilig (2005) cite evidence that these relationships can be significant contributors to teachers' development. In early childhood teacher education such relationships may be especially important because the students are often more diverse and older than college students in general. Many of these students are likely to need strong support from faculty (Ackerman, 2005). Yet early childhood programs have greater percentages of part-time faculty, and greater demands on faculty time for student advisement, than do higher education faculty as a whole (Early & Winton, 2001), limiting the time available to build such relationships.

Beyond specific faculty skills, there is converging evidence that a strong practice focus—not just transmission of knowledge—is essential for effective professional development (NCATE, 2010; Sheridan, Edwards, Marvin, & Knoche, 2009; U.S. Department of Education, 2010; Zaslow, Tout, Halle, & Starr, 2010). In its report *Preparing Teachers: Building Evidence for Sound Policy*, the National Research Council (NRC; 2010) described this focus ("clinical preparation" or "field experiences") as one of the components of teacher education that has the greatest likelihood of improving child outcomes. With this evidence and consensus in mind, it seems critical for future research to examine faculty skills in building students' ability to implement specific practices. In its recent report on revamping teacher education through clinical practice, NCATE outlined skills for "clinical faculty"—those who supervise future teachers in the field, urging that they "should know how adults learn, know mentoring strategies and how to use them, have a portfolio of assessment approaches, and a complement of personal skills for building trust, rapport, and communication with candidates" (2010, p. 21). If a strong practice focus is to become a reality, such skills should be part of the repertoire of all faculty members, not just those with direct responsibility for field experiences. Yet research sheds no direct light on these or other pedagogical skills—in part because of the previously discussed lack of consensus around what those skills ought to be for early childhood faculty.

### *Professional Development for Faculty*

In contrast to extensive reviews and discussions of professional development for classroom teachers, including early childhood educators (e.g., Hyson & Whittaker, 2012; U.S. Department of Education, 2010; Zaslow & Martinez-Beck, 2006), relatively little attention has been paid to the need for, the content of, or the effects of professional development for faculty who are teacher educators, at least within the United States. Interestingly, a much more extensive literature exists on faculty development for those who teach future physicians, nurses, and other health professionals, including research on the effectiveness of different approaches to faculty development (Steinert et al., 2006).

Many early childhood teacher educators seem keenly interested in their own professional development but report being constrained by budget issues and the availability of professional resources (e.g., Gilkerson, 2001; Hemmeter et al., 2008; Hyson et al., 2009). For example, 46% of those surveyed about early childhood mathematics reported that faculty members were "eager" to improve students' preparation, but they needed more professional

development (Hyson, 2008). Several faculty development initiatives have recently tried to build capacity in content areas such as diversity (Maude et al., 2010), inclusion (Winton & Catlett, 2009), and brain development (Gilkerson, 2001). Methods have included summer institutes, online discussions, and the development of modules for faculty to integrate into their courses. Such initiatives have not yet been rigorously evaluated, and their scale-up appears limited by institutional budget cuts—for example, only 50% of respondents to a faculty survey (Hyson et al., 2009) identified "building faculty capacity" as a programwide priority.

### *Beyond the Individual Faculty Member: The Role of Organizational Climate*

As pointed out early in this chapter, ECE teachers' work environments are likely to influence the extent to which they are able to implement what they learn in higher education (Whitebook, Gomby, Sakai, & Kipnis, 2009). Similarly, the environment within which higher education faculty members work, and the level of support they receive, may influence their ability to implement effective practices. Many ECE faculty members work in programs with high ratios of students to full-time faculty—on average, 60% higher in an IHE's ECE program than in the IHE as a whole (Early & Winton, 2001). Other evidence of institutional obstacles is found in faculty responses to a survey that asked faculty to characterize the climate in which their program currently operates (Hyson et al., 2009). Almost 20% reported functioning in a negative climate, predominantly "survival mode—just keeping our heads above water." Programs also reported the extent of philosophical and financial support from upper administration. Not surprisingly, significant associations were found between level of administrative support and self-reported program climate. Further exploration of such issues may help us understand the faculty supports needed to promote effective practices for future early childhood educators.

## The Impact of Higher Education

Of all the issues concerning early childhood higher education, the question "What are the effects of higher education on graduates and on the children and families with whom they work?" is arguably the most important. Yet here the research is most inadequate. Despite the limitations of the data, we know much more about the characteristics of institutions, students, faculty, and programs than about higher education's impact on (a) graduates' knowledge, skills, dispositions, and professional lives; (b) their classroom practices; and (c) developmental and learning outcomes for children who are taught by those graduates, let alone outcomes for the families with whom early childhood graduates may work.

### *Dimensions of Higher Education with Potential Impact*

Table 26.1 outlines a number of dimensions of higher education; the impact of each could be investigated through research. With these dimensions in mind, multiple kinds of outcomes or potential impacts of higher education on graduates and the children and families with whom they work can be generated. Table 26.2 lists some examples of such outcomes, including graduates' content knowledge, observed classroom quality and teaching practices, graduates' career paths, and children's academic and developmental outcomes.

Reflecting on these tables, one can see rich opportunities for researchers to link features of early childhood higher education programs with a variety of potential outcomes for graduates' knowledge, beliefs, and practices and, in turn, to link those outcomes with

**TABLE 26.1. Sample Dimensions of Higher Education with Potential Impact on Graduates and Children**

1. Amount of higher education (e.g., none/some/associate/baccalaureate)
2. Extent and type of specialization (e.g., general college degree vs. elementary vs. ECE/child development degree vs. blended ECE/ECSE)
3. Delivery mode (e.g., online vs. face-to-face vs. mixed)
4. Academic home and philosophical orientation of program
5. Variations in specific program content and preparation emphases (e.g., number and type of courses in literacy; mathematics; diversity; amount and type of field experience)
6. Variations in quality of teacher education programs (e.g., as measured by accreditation or other indicators such as faculty qualifications)

associated outcomes for young children and their families. But it is also clear that few of these opportunities have been taken.

### *Impact of Teachers' Degrees on Classroom Quality and Child Outcomes*

The limited research on higher education's impact has mainly asked whether observed classroom quality and child outcomes differ as a function of whether teachers do, or do not, have college degrees (including which degree levels and in what specializations). Many reviews of earlier research (e.g., Bowman, Donovan, & Burns, 2001; Whitebook, 2003) indicate that higher levels of teacher education generally predict better classroom quality and more positive cognitive and social child outcomes, and a 2007 meta-analysis (Kelley & Camilli, 2007) comparing impacts on quality for teachers with and without a BA found consistently positive impacts of the BA, although with relatively small effect sizes. However, a recent review of research on effective professional development (U.S. Department of Education, 2010) concluded that secondary analyses of large-scale studies by a consortium of researchers (Early et al., 2007) "provided little indication that degree, highest education level among those with an early childhood major, or having an early childhood major among those with a bachelor's degree were related either to observed classroom quality or to children's gain scores on measures of academic achievement" (U.S. Department of Education, 2010, pp. 11–12).

**TABLE 26.2. Potential Outcomes for Early Childhood Graduates and Children**

Outcomes for early childhood graduates

1. Content knowledge (e.g., Praxis scores)
2. Overall observed classroom quality (e.g., Early Childhood Environment Rating Scale, Infant/Toddler Environment Rating Scale, CLASS scores)
3. Observed skills in specific domains (e.g., observed competence in teaching mathematics or literacy; use of inclusive practices; addressing challenging behavior; responses to diversity)
4. Attitudes and beliefs in specific domains (graduates' self-perceived readiness to implement inclusive programs, work with linguistically and culturally diverse children, etc.)
5. Graduates' career development (e.g., turnover; seeking further education)

Outcomes for children

1. Academic outcomes (e.g., literacy, mathematics)
2. Other dimensions of positive development and school readiness (e.g., physical health and well-being; mental health; self-regulation; social and emotional competence)
3. Grade retention and assignment to special education

Although discussion continues about the relative merits of various studies and syntheses on the impact of teachers' education, both the consortium members (Early et al., 2007) and others (e.g., Bogard, Traylor, & Takanishi, 2008; Burchinal, Hyson, & Zaslow, 2008; Hyson et al., 2009; U.S. Department of Education, 2010; Washington, 2008; Whitebook, Gomby, Bellm, et al., 2009) acknowledge many limitations in this line of research, including the correlational nature of the studies and the narrow range of outcomes that have been investigated. At the same time, many of these authors call for reframing and expanding the research questions, going beyond the "degree or not" question to examine more of the variables outlined in Table 26.1, as well as the array of classroom and child outcomes highlighted in Table 26.2.

This call is only beginning to be answered. A few examples illustrate the kinds of studies that have been conducted recently, followed by brief comments on their limitations.

### *The Effects of Features of Higher Education on ECE Students' Current Knowledge, Beliefs, and Practices*

There are numerous studies of this kind, for the most part by individual faculty members who have implemented an innovation such as a mentoring experience (Trepanier-Street, Adler, & Taylor, 2007), service learning (Szente, 2008), a practicum in infant care (Recchia & Shin, 2010), or a curricular emphasis on active listening strategies (McNaughton, Hamlin, McCarthy, Head-Reeves, & Schreiner, 2007), either in one course or across a program. Effects on students' knowledge and beliefs are then examined, often with qualitative methods. Data are usually gathered at one point in time, but a few studies have followed students over the course of their years in the ECE program (e.g., La Paro et al., 2009; Recchia, Beck, Esposito, & Tarrant, 2009; Vartuli & Rohs, 2009). One other approach (File & Gullo, 2002) has been to compare pedagogical beliefs about teaching in the early primary grades held by students in either elementary education or early childhood programs. In this study, although differences were not large, elementary education students were significantly more likely to hold positive beliefs about teacher-directed instruction, the use of formal tests, and behavior management through the use of extrinsic rewards.

### *The Effects of Features of Higher Education on ECE Graduates' Beliefs and Practices*

Except for the follow-up surveys usually required for institutional accreditation, few studies have examined graduates' beliefs as a function of variations in their preparation. A few investigators have studied graduates' beliefs about the adequacy of their preparation to address issues such as cultural and linguistic diversity (e.g., Ray et al., 2006). Similarly, Miller and Losardo (2002) examined the perceptions of teachers who had graduated from seven blended early childhood education/early childhood special education programs about their programs' strengths (in child development and general ECE) and gaps (working with families and meeting the needs of children with moderate to severe disabilities). None of these studies has ventured into graduates' classrooms to investigate variations in practices related to variations in the content or quality of their higher education programs.

### *The Effects of Features of Higher Education on Child or Family Outcomes*

Beyond the studies referred to earlier, which simply look at child outcomes as a function of whether teachers have degrees or not, research has not yet examined whether better outcomes result for those children who are taught by graduates from teacher education programs that differ in specific features, or for families with whom those graduates interact.

For example, one might ask whether children fare better on specific outcomes when their teachers have had a specific kind of literacy emphasis in their undergraduate program, or have graduated from a blended ECE/ECSE (early childhood education/early childhood special education) program, or have graduated from an NCATE/NAEYC accredited program. One might also ask whether family outcomes are improved if teachers or early interventionists have had family-focused field experiences practica or have had family members as course co-instructors. Such crucial questions remain to be addressed.

### *Limitations of Research on the Impacts of Higher Education in the Early Childhood Field*

The preceding paragraphs clearly indicate the major limitation—the absence of programmatic, rigorous, fine-grained studies that tease apart how different features of higher education programs may affect both teachers' practices and child/family outcomes. Those studies that have tried to address a few of these issues have mostly been conducted in one institution, often by one faculty member, using small numbers of students, and for the most part have been limited to descriptive or qualitative methods. Together, the studies do not add up to a systematic program of research in which findings from one study lead to new studies, and in which consistent, valid, and reliable instruments are used across settings. Although existing research may prompt reflection on individual practices and may generate ideas for future studies, it cannot yet be used to guide higher education practices or policies on a large scale.

Research in K–12 teacher education, while sharing many of the same challenges and limitations (Kennedy, 1996; Wilson, Floden, & Ferrini-Mundy, 2001), has made somewhat better progress in examining a complex and nuanced set of higher education features for their possible effects on both teaching practices and student outcomes (e.g., Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Cochran-Smith, Feiman-Nemser, McIntyre, & Demers, 2008; Darling-Hammond et al., 2005; Florez, 2009). This body of work may offer some models for future early childhood research. For example, using a value-added methodology, Boyd and colleagues (2009) have examined relations between variations in the nature of preparation in 31 elementary education programs and the math and reading learning gains of students taught by the programs' graduates in the New York City public schools. Going beyond simply counting credit hours, the researchers used multiple measures of program content, including document analysis, surveys, and interviews. The results clearly demonstrate that some IHEs are more effective than others in producing graduates whose students make greater progress. Specifically, graduates of those IHEs with a stronger practice focus (e.g., stronger supervision of student teaching and a practice-focused capstone project) had better outcomes, at least during their first year of teaching. This kind of research is both feasible and important to conduct for early childhood teacher preparation programs.

## Toward More Effective Higher Education: Recent Innovations and Promising Practices

Increasing the effectiveness of early childhood teacher preparation requires innovative thinking—a difficult process in higher education, a system often accused of deep resistance to change (Diamond, 2006). Some such efforts have been noted elsewhere in this chapter; here we highlight recent examples in three key areas: systems-level innovations; national efforts to build faculty capacity; and innovations in higher education coursework and program

delivery. Again, it is important to note that few innovations have been rigorously evaluated, making this a high priority for the future.

### *Systems-Level Innovations*

NAEYC's Early Childhood Workforce Systems Initiative is promoting states' design of policies for an integrated, cross-sector professional development system, including policies related to higher education (LeMoine, 2008). Interviews with state leaders (Hyson & Whittaker, 2012) reveal a number of emerging efforts to strengthen higher education's role. The state of Delaware, for example, recently established an "Institute for Excellence in Early Childhood" at the University of Delaware, with responsibility for coordinating the state QRIS and Delaware's overall professional development efforts. The decision to house this body at an IHE was intended to increase and institutionalize higher education's involvement in all aspects of Delaware's ECE quality improvement efforts.

More generally, the Improving Head Start for School Readiness Act of 2007 includes a significant mandate for states to establish Early Childhood Advisory Councils (ECACs). Because representation of higher education on these councils is required, ECACS afford another opportunity to strengthen links between higher education and other sectors of early childhood professional development.

Time and careful evaluation are needed to see whether such innovations result in meaningful participation and integration of higher education into the broader professional development system. Furthermore, without an equal focus on improving higher education content, pedagogy, and faculty capacity, simply focusing on process (i.e., merely having higher education represented "at the table") is unlikely to result in sustainable improvements.

### *National Resources to Build Faculty Capacity*

Recognizing gaps in the knowledge base and resources of many faculty members (exacerbated by limited professional development funds for professional development and heavy teaching loads), several federally funded projects have developed free, easy-to-use, materials to use infuse current, research-based information into early childhood courses. The Research Connections Faculty Teaching Modules (*www.researchconnections.org*) provide suggested assignments and in-class activities to help faculty orient their students to Research Connections' search functions, and to help students make thoughtful connections between research and practice. Similarly, the Center to Mobilize Early Childhood Knowledge (CONNECT) is developing detailed, practice-focused modules, including rich video examples, to build faculty members' capacity to promote students' use of evidence-based practice in inclusive settings (*http://community.fpg.unc.edu/connect-modules)*. To date, the impact of such resources on the practices of faculty and students has not been studied, although CONNECT has evaluation built into its design.

### *Innovations in Higher Education Programs and Instructional Models*

One promising innovation has been the development of ECE cohort programs to promote success among nontraditional students new to higher education. In California, for example, a cohort approach is being used in six BA completion programs, with small groups of adult students already teaching in ECE, moving together through the program, taking courses together, and providing mutual support (Whitebook et al., 2008). The University of Oklahoma–Tulsa's Bachelor's Completion Program admits students in cohort groups, offers courses during evenings and weekends, and provides attractive loan forgiveness and

scholarship programs to support students throughout the academic program and during student teaching (Goble & Horm, 2009). Their nontraditional students report that while the financial aid and scheduling first attracted them to the program, the cohort organization is essential for their success and program completion. Ongoing research aims to assess the effectiveness of such programs in supporting successful degree completion and effective classroom practices.

Specific to innovations in higher education instruction, there are promising applications of CLASS (Classroom Assessment Scoring System) and MTP (MyTeachingPartner, a professional development component of the CLASS system). First used as part of inservice training, MTP engages participants in learning about and analyzing high-quality teacher–child interactions and applying these insights to their own practice. Efforts to incorporate this work into higher education include (1) using the CLASS categories in evaluating student teachers (La Paro, Maynard, Scott-Little, & Thomason, 2010) and (2) creating an MTP-related, 14-week course that has now been implemented with a small sample of preservice students (Scott-Little et al., 2011) and with a greater number of practicing teachers (Hamre et al., in press)—both delivered by college-level instructors. Again, more evaluation is needed, and is under way, to track impacts beyond participants' knowledge, beliefs, and concurrent practices to see what the longer-term outcomes may be for teachers and children.

Along with course-related innovations already mentioned earlier in this chapter, other promising examples may be cited, usually originating within one IHE. Although these individual program improvement efforts are quite diverse, most of them aim to strengthen the *practice* component of the teacher education program through enhanced field experiences, better collaboration between college/university faculty and early childhood program staff, or expanded use of coaching and mentoring as part of preservice teacher education. A continuing question is how some of these innovations might be brought to scale. The culture of higher education has typically been one of individual effort, with each program or institution taking pride in its "unique," homegrown program features. Greater state and federal leadership in early childhood teacher preparation may create incentives to remove those barriers.

## Toward the Improvement of Higher Education: Gaps, Challenges, and Actions

This chapter has offered ample evidence of the obstacles facing efforts to improve higher education. Here we summarize these obstacles before outlining some urgently needed actions.

### *Research Gaps and Challenges*

A major theme identified at the beginning of this chapter, and echoed throughout, is the lack of research in early childhood teacher education. We have observed specific, significant research gaps in every one of the major components of early childhood higher education depicted in Figure 26.1. Much of the research to date has been descriptive, and even this descriptive literature is far from complete. We do not yet have descriptions of all the components outlined in Figure 26.1; for example, we do not have comprehensive descriptive data on content or pedagogy across early childhood teacher education. Statistics about coverage of specific topics (e.g., diversity) in separate courses does not get at more complex questions about the value of embedding such content across courses and field experiences versus "delivering" content via discrete courses. As we have seen, except for a few larger surveys, most descriptive studies have been conducted by individual or small groups of faculty

members, focused on specific features of their own programs with relatively small samples, and have covered only brief periods of time.

Moving beyond description, the existing literature does offer insights into the relations between and among some components of Figure 26.1, such as relations between teachers' implementation of effective practices and short- and long-term child outcomes. Yet few empirical studies have attempted to make systematic connections between the higher education system and these later teaching practices and outcomes, with the recent college-level implementation of aspects of the CLASS and MTP being a promising exception. The domain of family outcomes remains entirely unstudied.

To move into the next generation of early childhood higher education research, the field has numerous challenges to overcome. Challenges include (1) the absence of an overall research agenda that can serve as a road map for guiding future research efforts; (2) assessment tools and methods that are not adequate to capture the complexities of early childhood teacher education programs; the knowledge, skills, and attitudes of graduates; characteristics of effective early childhood program and classroom practices; and the learning and development of young children and their families; (3) limited faculty capacity to conduct high-quality early childhood research because of an inadequate pipeline of well-prepared future researchers and limited institutional supports for early childhood faculty to embrace and conduct research; and (4) a dearth of interdisciplinary teams that use rigorous methods and are able to design, conduct, analyze, and interpret research on critical higher education issues from multiple perspectives.

### *Policy Gaps and Challenges*

One of the most pervasive and complicated policy challenges is the fragmentation of professional development initiatives at national, state, and local levels. This fragmentation has had a direct impact on the effectiveness of higher education. Each sector, including higher education, has a different funding stream for professional development, and a variety of standards, licensure and certification programs, and other quality assurance initiatives, each with its own related professional development components. Further complicating the fragmentation are the diverse professional development funds and requirements across early childhood disciplines—including education, special education, and allied health—and service providers—including Head Start, child care, health, mental health, and PreK. All of this impacts both resources for and integration of professional preparation within higher education. This challenge is long-standing, has been decried in the literature (Winton, McCollum, & Catlett, 1997, 2008), and still manages to elude solutions. The increased attention to early childhood professional development has meant the availability of more state money, mostly in the form of nonrecurring ARRA dollars, but too often that has meant additional disconnected efforts, without sufficient attention to quality or collaboration, including collaboration between higher education and other parts of the professional development system. Policymakers have not taken steps to overcome the traditions and turf issues that continue to isolate higher education and that keep cross-sector collaboration at the level of lip service.

A second and related policy challenge is the lack of agreement across sectors on a set of national and state professional preparation standards and related competencies,[4] based on the best available research on effective practices and interventions for educating and supporting the development of each child (Winton & West, 2011). Despite promising efforts at coordination and alignment, the existence of separate professional preparation standards (also called "personnel preparation standards") for general early childhood education (NAEYC) and early childhood special education (DEC/CEC) persists. A further concern surrounds the alignment of various state standards with those of the relevant national organizations.

In Stayton and colleagues' (2009) review of state licensure/certification standards for early childhood special educators, most state personnel said they used national standards as the basis for their state standards. However, content analysis of the state standards found little to no correlation with NAEYC and CEC/DEC standards. Furthermore, state competencies developed within the child care sector seldom align either with state teacher licensure standards or with national standards for personnel preparation.

This complex and often confusing context makes it difficult for early childhood educators to understand the professional development system and to know how to move across different parts of the system within and beyond higher education. It also creates obstacles in developing common measures and tools for assessing teachers' and teacher educators' practices. In turn, this limits our ability to measure the impact of higher education on learners' performance, or to examine the impact of higher education compared with, or linked to, other professional development activities.

A third challenge is presented by the lack of policies that create and support expectations for faculty professional development. Expectations for "highly qualified teachers" have not been accompanied by similar expectations for faculty. State and federal resources have not been directed toward helping faculty members to update their knowledge and skills about (1) emerging research-based approaches and strategies for working with children and families, and (2) research-based approaches for teaching early educators. In earlier sections of this chapter we have referred to some promising approaches for providing this kind of faculty support; however, such approaches need rigorous evaluation in light of differing characteristics of institutions, faculty, and learners. Linking back to the discussion of research challenges, significant investments will be needed to scale up "promising practices" and to ensure the fidelity of their implementation.

## Taking Action

Daunting obstacles require bold, creative solutions. The continuing lack of research on a broad range of higher education issues should not prevent action, although it makes rigorous evaluation of these action steps especially important. The following steps are likely to move us forward in improving higher education's impact on future teachers, young children, and their families:

1. Convene a federal interagency collaborative and interdisciplinary experts to jointly develop and fund a comprehensive *research agenda* on early childhood higher education, and a grants program to support higher education innovation, similar to what the U.S. Department of Education's OSEP has done for personnel preparation in early childhood special education.
2. Make significant, systematic investments in ongoing support and *professional development for higher education faculty*, targeting the content knowledge, attitudes, pedagogical skills, and research expertise that are most likely to be linked to graduates' ability to implement evidence-based practices with children most at risk of negative outcomes, and to positively influence their families.
3. Invest in a *pipeline of diverse, well-prepared future faculty* with competence to positively influence students and the broader early childhood field through robust preparation in content, pedagogy, and research and evaluation. This requires attention to expanding the number of doctoral programs, linking with existing interdisciplinary programs in early childhood special education, and expanding support for graduate students.

4. Engage leadership and provide funding to ensure that higher education has a meaningful role in *cross-sector professional development systems*, and that preservice and inservice professional development are viewed as an integrated whole.
5. Continue to create *higher education pathways and incentives* for early childhood teachers to participate in degree programs that are accessible, affordable, *and* of high quality.

Young children in Head Start, PreK, and child care programs have no idea whether their teachers went to college, let alone what kind of program they attended or what courses they took. Young children do have a sense, however, about whether their teachers enjoy being with them and their families; challenge them with new ideas and activities; talk with them about interesting things; and create a safe, organized environment. Parents and policymakers expect these same behaviors and competencies from teachers of young children. These and related competencies can be promoted by higher education programs if those programs, in turn, have the support they need to implement effective approaches to educating future early childhood teachers—and if they are part of a comprehensive system of professional development.

## Notes

1. Although there are several different kinds of baccalaureate degrees (e.g., BS), in this chapter the term "BA" is used as a shorthand descriptor for all baccalaureate degrees and programs.
2. The terms "licensure" and "certification" are sometimes used interchangeably. However, the National Council for Accreditation of Teacher Education (NCATE) reserves the term "licensure" for a state government agency's official recognition that an individual is approved to practice because the person has met specific professional qualifications. "Certification" is sometimes granted by nongovernmental organizations or associations; an example would be the "Accomplished Teacher Certification" of the National Board for Professional Teaching Standards (NBPTS).
3. Although not in Bornfreund's (2011) list, the state of North Carolina also offers a blended license, birth through kindergarten (Myers, Griffin, Telekei, Taylor, & Wheeler, 1998).
4. The terminology itself gets in the way of consistency and coordination, with the term "personnel preparation standards" used by CEC/DEC; "professional preparation program standards" used by NAEYC; "licensure" or "certification standards" used by state agencies; and "competencies" used by various groups, including state child care/professional development groups.

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