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What Do We Know About Building and Sustaining the Child Care and Early Education Workforce?

Cross-Cutting Themes from a Literature Review, Environmental Scan, and Data Scan

Building and Sustaining the Child Care and Early Education Workforce

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High-quality, stable child care and early education (CCEE) can have lasting, positive impacts on children.[1] However, there are ongoing challenges in recruiting, supporting, and retaining a qualified, stable CCEE workforce that provides high-quality care.[2] CCEE educators typically have low levels of compensation; limited opportunities for education, training, and professional development; inconsistent working conditions; and high levels of stress and burnout.[3] There are also high rates of job turnover,[4] which can diminish the quality of care by straining remaining educators.[5] The COVID-19 pandemic has exacerbated these issues.[6]

While several states and localities are taking steps to build and stabilize their CCEE workforce, important questions remain about how to best strengthen the workforce to meet the needs of children and families, particularly those who experience poverty or who are racially, ethnically, and linguistically diverse.[7]

The *Building and Sustaining the Child Care and Early Education Workforce* (BASE) project team completed a literature review and an environmental scan that were designed to identify and document existing knowledge about the CCEE workforce and develop strategies to strengthen it. The literature review synthesized research on factors that shape CCEE *workforce dynamics*, defined here as how educators enter, advance in, and exit out of different roles, settings, and types of care.

The **Building and Sustaining the Child Care and Early Education Workforce (BASE)** project aims to increase knowledge and understanding in child care and early education (CCEE) by documenting factors that drive workforce turnover and by building evidence on current initiatives to recruit, advance, and retain a stable and qualified CCEE workforce.

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The literature review predominantly focused on studies conducted between 2017 and 2021 and examined the effectiveness of strategies that were implemented to build a sustained, qualified workforce.[8] The environmental scan identified and reviewed the range of strategies currently being used across the country to build, advance, and sustain the CCEE workforce.[9] The team also completed a data scan that assessed the strengths and weaknesses of several potential data sources that could be used to examine workforce dynamics and address key gaps in existing research.[10] (See Box 1 for definitions of key terms used in the BASE project and Boxes 3 and 4 at the end of the brief for descriptions of the literature review and environmental scan methodologies.)

Box 1. Terminology

While terminology varies in the field, in this brief key terms are defined in the following ways:

CHILD CARE AND EARLY EDUCATION (CCEE) refers to programs and the workforce educating and caring for children from birth to 13 years of age. This includes educators in centers and in home-based settings caring for infants, toddlers, and preschool- and school-aged children. CCEE refers to a larger age group than Early Care and Education (ECE), which consists of services for young children only (e.g., Head Start/Early Head Start, public pre-K, and centers serving children from birth to age 5). ECE programs are included in the definition of CCEE.

CCEE EDUCATORS and CCEE WORKFORCE refer to current and prospective educators who are paid to care for children from birth to 13 years of age in center- and home-based settings. This includes educators in different positions and roles. For example, center administrators, directors, lead and assistant teachers, and home-based educators are included in this definition. This definition also includes both licensed and license-exempt center- and home-based settings. While the CCEE workforce also includes support staff in centers, like coaches, education coordinators, and behavioral specialists, these individuals are not the primary focus of this brief.

CCEE SETTING refers to the physical location (for example, a center, school, or home) where children receive care. Settings can include Head Start child care centers; community-based child care centers; licensed and license-exempt home-based child care settings that receive subsidies; and the home or location of relatives, neighbors, or other individuals who are paid to care for children.

CCEE TYPE OF CARE refers to how caregiving is distinguished by different funding streams and federal, state, and local policies, regulations, and oversight. The BASE project primarily focuses on center-based or home-based care. But the research team also makes further distinctions within those two types, such as Head Start or Early Head Start programs, community-based child care settings, home-based child care settings, and publicly funded pre-K.

STRATEGY refers to an intervention, initiative, or policy designed to build, advance, or sustain the CCEE workforce. It can include a single **APPROACH**—for example, offering a scholarship—or an assortment of approaches, such as offering both a scholarship and coaching.

WORKFORCE DYNAMICS encompass entry into and exit out of the CCEE field as either a self-employed business owner or an employed individual. For those in the field, it includes tenure and advancement, as well as entry into and exit from different roles, settings, and types of care. Workforce dynamics include multiple phases of employment: entry, retention, turnover, and advancement.

This brief describes three of the cross-cutting themes from the literature review and the environmental scan: the field's need for more and better data, the role of higher education in CCEE workforce dynamics, and the mismatch between the needs of a diverse CCEE workforce and existing strategies. It highlights where current strategies align with or diverge from the existing evidence base, identifies areas where additional research and data are needed, and provides recommendations for research and policy. Where relevant, the brief also points out complementary conclusions from the data scan.

The CCEE Field Needs More and Better Data

The CCEE field needs better information about who, when, how, and why individuals enter, stay or advance in, and exit different roles, settings, and types of care, or leave CCEE altogether. This information is essential to better understand workforce dynamics in general and to inform the development, evaluation, and improvement of strategies to effectively build and sustain a qualified and stable CCEE workforce.

To meet this need, there are three areas of focus that can inform future research and the creation of data infrastructure:

1. Establish a common language for CCEE terms and standardize measurement of workforce dynamics.
2. Build a longitudinal understanding of educators' employment trajectories.
3. Collect more systematic data on the home-based child care sector.

Details about each of these areas of focus are described below.

Common Language and Consistent Measurement

In the CCEE field, terms like "retention," "turnover," and "advancement" are not defined and measured consistently. This lack of consistency makes it challenging to draw definitive conclusions about patterns of workforce dynamics. For example, the literature review showed that rates of turnover varied widely, from 15 to 46 percent.[11] The rate depended on how "turnover" was defined. That may have changed depending on what mode of data collection was used and which educator roles and settings were included. While public policy discourse often cites high rates of turnover in the field, more systematic research about the specific nature of the problem is critical, using a consistent set of terms and definitions. Common language and precise measurements are needed to expand the field's understanding of workforce dynamics and to allow for cross-study and cross-strategy comparison.

Furthermore, the literature showed an uneven evidence base across four different phases of workforce dynamics (entry, retention, turnover, and advancement). For instance, around two-thirds of the publications that were reviewed focused on turnover and retention; far fewer studies examined recruitment and entry or advancement. Figure 1 illustrates the four phases of workforce dynamics in more detail.

Figure 1.

Child Care and Early Education Workforce Dynamics

ENTRY
Entry of prospective and current educators into a new job, setting, type of care, or the CCEE field

RETENTION
Tenure of educators in a given job, setting, type of care, or the CCEE field

TURNOVER
Exit/employment transition of educators out of a given job, setting, type of care, or the CCEE field; the closure of a home-based care setting

ADVANCEMENT
Upward economic and career trajectories within the CCEE field

ENTRY. A little over one-fourth of the studies assessed during the literature review examined entry or recruitment into the CCEE workforce, demonstrating that entry is a key area where more research and data are needed. The studies that were found did not measure actual entry into the workforce—for example, how many individuals are hired in a particular job, setting, or type of care. Instead, most studies discussed employers' perceptions of the applicants and the hiring challenges, or they focused on steps in the recruitment process, such as who receives a call-back interview. They tended to sample from existing CCEE educators and traced their decisions and pathways through the workforce retrospectively. One qualitative study, for example, documented the challenges faced by immigrant women of color when navigating CCEE education requirements.[12] A qualitative study that interviewed current educators of infants and toddlers suggests that their pathway into the profession was less structured than that of teachers of older children because most did not intentionally seek out teaching positions for the infant and toddler age range.[13]

Only a few studies from the literature review outlined standard recruitment practices implemented by center directors or CCEE systems. Some studies discussed individual programs that employed innovative practices like considering competencies beyond formal educational credentials, such as the lived experience of applicants. For instance, a case study review of exemplar Head Start programs found that Acelero Learning reported that candidates with associate's degrees could be stronger than candidates with bachelor's degrees if they had more relevant experience and if their interviews showed that they were coachable and demonstrated competency in the role.[14] Another program in that set of case studies, run by Fairfax County Public Schools, amended its interview questions to consider factors beyond formal education level, such as experience working with children and families who have experienced trauma or who live in poverty.

Most workforce development strategies that were identified by the environmental scan target current members of the CCEE workforce rather than prospective educators. In fact, most of the strategies had eligibility criteria that required employment in center-based or home-based child care settings. This was particularly true of strategies that targeted educators' economic well-being, qualifications, and

competencies. Some strategies that might be better poised to target entry and recruitment, like apprenticeship models, required a strong commitment from CCEE employers to potential participants. For example, one registered apprenticeship model required the employer to write a formal letter of commitment stating that they would support their employee in completing required coursework and activities as part of the application. Strategies that aimed to support CCEE educators' pursuit of additional qualifications, certifications, or competencies rarely included prospective educators who expressed interest in the field but did not have prior or current employment in CCEE. Many of the programs that implemented these strategies required educators to have additional eligibility criteria, such as qualifications, credentials, or certifications—like a Child Development Associate (CDA) credential, an associate's degree, or a bachelor's degree—that tend to favor individuals who are already employed in center-based settings.

In summary, the CCEE field needs more data on different aspects of entry and recruitment, such as an understanding of which prospective educators are entering the CCEE workforce and why and how they do so. More data are also needed on current CCEE educators who are entering new jobs in a different position, setting, or type of care, and on what recruitment practices are in place and how they differentially affect who applies for a job and who receives an offer.

TURNOVER AND RETENTION. Most studies examined in the literature review focused on turnover or retention, but they defined and measured "turnover" differently. Turnover tended to be captured in one of three ways:[i]

- *individual-level turnover* — whether individuals left their center- or home-based provider or the CCEE field entirely, or a home-based child care setting closed[ii]
- *administrator report of turnover* — the number of individuals who left a center divided by the total number of staff, as reported by an administrator[iii]
- *intent to turnover* — an individual's stated intent to leave or quit a job, or a home-based owner's intention to close their business

Retention, which can also be referred to as job stability, is typically measured as the opposite of turnover, such as the percentage of individuals who are still working in a particular job, setting, or type of care after a

[i] In studies focused on home-based child care settings, *churn* may be the term used instead of *turnover* because in this context, *turnover* usually refers to a home-based child care setting closing.

[ii] Individual-level turnover can either be captured by using an individual's report that they are still at their job or by checking if an individual remains in a dataset (with the assumption that if they do still appear in the dataset, they are still at that job).

[iii] This kind of measure is calculated by asking an administrator to report how many staff members they have—either in total or in a certain role—and how many have left during a specific length of time (for example, since September or in the last 12 months). Turnover is then calculated as the number of individuals who have left divided by the total number of staff.

given period of time. Alternatively, retention may be measured in years as the length of tenure or the amount of experience an individual has.

Even when studies used the same measure of turnover, there may have been additional differences in how that measure was created. For example, studies may have examined turnover rates over different lengths of time, such as a program year, a calendar year, or over multiple years. Some studies that measured turnover intention queried a specific time frame—for example, individuals were asked if they intended to quit their job "in the next two years"—while others did not appear to specify a time frame. Who is included in the turnover rate also varies. Some studies reported a collective turnover rate for multiple roles, while others reported separate turnover rates for different roles (like lead teachers compared with assistant teachers). Further, studies often did not distinguish when they were capturing turnover out of a role, a setting, a type of care, or the CCEE field entirely, usually because they did not document where educators went.

As a measure of actual turnover (versus turnover intention), administrator report of turnover may be less accurate than individual-level turnover reporting because the former may be based on an administrator's *recollection* of who left rather than a data-informed count of staff members. Also, there is limited information about how turnover intention is related to actual turnover. One correlational study of community-based early care and education programs found that the number of lead teachers who stated that they intended to leave their job and organization in the next two years was 10 percentage points higher than the average teacher turnover rate in the previous 12 months as reported by administrators.[15] This suggests that studies using turnover intention as an outcome may overstate the amount of actual turnover that occurs. Most studies included in the literature review that examined associations between individual-, workplace-, and community-level factors and turnover focused on educators' turnover intention.[iv] Because it is unclear how well turnover intention predicts actual turnover, more research is needed about individual-level turnover and its predictors.

In summary, the CCEE field needs a more consistent measure of actual turnover, where individuals go when they leave their jobs, and why they leave. Such in-depth data will help the field better understand how turnover rates may vary at different levels: for a particular employer, for different roles, within and across different CCEE settings and types of care, and for the CCEE field. Further, whenever actual turnover rates are reported, readers need clear information about how turnover rates are measured (for example, which educator roles are included and over what period of time) to help determine which turnover rates can be appropriately compared with one another.

ADVANCEMENT. About one-fourth of studies assessed through the literature review focused on advancement. In combination, the knowledge review activities found that the CCEE field does not clearly and consistently define the concept of career advancement or how to measure it. In some cases, advancement was measured by the higher education levels obtained by CCEE educators, with the implicit

[iv] Examples of individual-level factors include educators' education levels, experience, and psychological well-being. Workplace-level factors include educators' perceptions of the workplace environment and their job supports, like dedicated planning time. Contextual-level factors include local unemployment levels and local cost of living.

assumption that additional credentials lead to increased responsibility or earnings.[16] Other studies used a more traditional measure of advancement and documented how earnings or job titles increased with education or experience.[17]

Relatedly, existing strategies also define advancement inconsistently. Many strategies describe furthering teachers' education, qualifications, and competencies and view higher pay as integral to the advancement of the workforce, but few have clearly articulated goals for career advancement or upward economic mobility—either within or across CCEE settings.

In summary, the literature suggests that the CCEE field would benefit from studies that use a consistent definition of advancement, especially when they examine the outcomes of different strategies designed to help workers advance in their careers. The BASE project offers one such definition of advancement: an absolute increase in individual earnings, which may or may not be accompanied by job transitions within the CCEE field.

Longitudinal Understanding of Workforce Dynamics

The systematic collection of more and better data is only the first step to better understanding workforce dynamics. These data also need to be collected and analyzed longitudinally so that the CCEE field can more clearly understand educators' employment pathways over time, including where educators come from, how they advance and move between settings, and when and why they leave. Much of the reviewed literature focused on a single point in time. Only five studies examined turnover longitudinally across multiple years, ranging from two to seven years.[18] None of these studies looked at individuals' employment trajectories over time.

The environmental scan found that agencies implementing strategies to build, advance, and sustain the CCEE workforce often only have a point-in-time snapshot of educators while they are engaged with the strategy. While many implementing agencies document participation and completion rates, most do not collect robust data about their participants before or after their involvement in a strategy. Further, the implementing agencies that do collect robust data do not always have the capacity to analyze these data to inform continuous program improvement. In one interview, a key informant from an agency that had implemented a wage supplement strategy described how detailed data are collected on applicant and participant characteristics—including how participants report spending their bonuses—but the agency does not have a data system in place to thoroughly analyze that information. Similarly, one apprenticeship program collects long-term participant data but does not have a research team to analyze those data. Most agencies primarily rely upon anecdotal insights and feedback from smaller sets of current and past participants. Finally, agencies generally do not follow participants after they have left the strategy to understand the longer-term effects of their supports and services.

Thus, there is a real need for longitudinal research on the CCEE workforce. Such research might examine which individual-, workplace-, and community-level factors—separately and in combination—are associated with employment outcomes over time. Understanding the key predictors of workforce dynamics can inform the design of strategies to help build and sustain the workforce. The field also needs information from studies with large enough samples to allow for an examination of whether and how workforce dynamics may vary based on setting (homes, centers, schools), role (administrators or directors, lead teachers, assistant teachers, aides, home-based child care owners, home-based child caregivers), ages of the children being cared for (infants, toddlers, preschoolers), and demographic or other characteristics of educators. This kind of information can allow CCEE practitioners and researchers to pinpoint specific

problems and identify where there are disparities in employment experiences and whether workforce strategies benefit some individuals more than others. It could also help professionals in the field to recognize that turnover can be "good" for an educator when it leads to career advancement but "bad" for the setting because it leads to discontinuity in care.

More Systematic Data on Home-Based Child Care

The literature review found that fewer studies focused on home-based child care settings than on center-based settings. Further, most studies that explained who was included in their sample focused on regulated or licensed home-based care and not on unregulated care. Yet the most popular nonparental child care arrangement for young children are home-based settings, where caregivers experience unique stressors that affect whether they stay in or exit the field.[19] One study found that college-educated teachers in home-based settings earned less than their counterparts at centers, which likely affected advancement prospects.[20] These discrepancies highlight a need for more descriptive, correlational, and qualitative research on workforce dynamics at each point of the workforce pipeline—entry, retention, turnover, and advancement—specifically for educators in both small and large home-based child care settings, as well as family, friend, and neighbor caregivers.

Similarly, the environmental scan found that while the target population of many strategies technically includes home-based child care owners and caregivers, none of the studies reviewed examine the effects of workforce strategies specifically for this subgroup. The degree to which these strategies effectively reach and serve home-based educators is unknown.

Strategies for both types of settings often do not account for the differing experiences and needs of home-based owners and caregivers compared with center-based educators. For example, some apprenticeship programs state that home-based child care educators are eligible to participate, but one requirement for participation is employer sponsorship, which home-based settings cannot easily provide. Further, most educational advancement strategies require a certain number of credit hours per semester to participate, but do not account for the difficulty that home-based educators face with attendance because they struggle with extended working hours and a lack of substitute educators to cover them.

The research gaps identified above are a result of limitations in existing data to capture longitudinal information on CCEE workforce dynamics. These gaps limit the ability of agencies to create and implement effective strategies. A forthcoming brief will describe the data scan conducted as part of the BASE project. It will outline the potential opportunities and limitations of available data sources and discuss how to leverage existing data to push forward data-informed, evidence-building efforts in the CCEE field. See Box 2 for key conclusions from the data scan related to the need for more and better data.

Box 2. Highlights from the BASE Project Data Scan

While there are several data sources currently available to describe CCEE workforce dynamics, there are gaps in these sources that have led to significant informational needs in the field. National surveys (such as the National Survey of Early Care and Education) are a rich source of information about CCEE centers and their educators. However, since the surveys mostly provide information from a single point in time, the longitudinal information on educators in these surveys is limited to measures reported retrospectively or (in the case of intent to leave) prospectively.

Administrative data—which include both registry and unemployment insurance (UI) wage data—contain more information on workforce dynamics, including worker characteristics and credentials, roles, employers, wages, and periods of employment. But each has limitations. The UI data, for example, do not include individuals' demographics or their roles within the CCEE field. While registry data can provide context, like information on center quality, participation in the registry among teachers and administrators is not mandatory in many states, and it may only roughly capture employment over time.

The most complete analytic data would involve linking rich individual records to contextual data on settings, communities, and policies. Integrated data sources like this tend to include employment, education, and registry datasets and have great potential to support more comprehensive analyses of workforce dynamics. However, these datasets are currently produced at the state level and exist for only a handful of states.*

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*Wiegand, Emily R., Robert M. Goerge, Victor Porcelli, and Cynthia Miller. 2023. *Understanding the Child Care and Early Education Workforce: The Need for More and Better Data,* OPRE Report 2023-190. Washington, DC: Office of Planning, Research, and Evaluation. Website: https://www.acf.hhs.gov/opre/project/building-and-sustaining-early-care-and-education-workforce-base.

Higher Education in CCEE: Not Always Accessible or Leading Directly to Advancement

There is a strong push to increase the education levels of the CCEE workforce, with the aim of creating well-qualified educators who provide high-quality CCEE.[21] Generally, education is viewed as a key driver of economic mobility in the labor market.[22] The literature review showed that educators' earnings did increase with their education levels, but the income gain was lower in CCEE than it was in other fields.[23] For example, descriptive research showed that earnings for workers with a bachelor's degree in the civilian labor force (non-CCEE sector) were twice that of their CCEE counterparts.[24] In addition, although one study found that CCEE teachers with at least some college education earned 38 percent more than their counterparts with a high school degree, the gain in the non-CCEE sector was 61 percent.[25] This suggests that, compared with other fields, the CCEE field's current focus on increasing education and training levels to improve program quality is not also resulting in career advancement and economic mobility.

The literature also highlighted barriers that individuals from marginalized groups—such as Black and Latina educators and educators who are immigrants—faced when accessing and completing higher education to enter the CCEE workforce. These obstacles can include financial difficulties; racism; and language barriers, including challenges passing certification tests that are provided only in English. One study documented that higher education requirements reduced the diversity of the CCEE workforce: Between 1999 and 2011, Head Start teachers increasingly attained higher education levels, but during the same time period the racial composition of the teachers and the children they cared for diverged.[26] A quantitative study found that individuals with associate's degrees were more likely than those with lower levels of education to get an interview callback, which can be a disadvantage for members of the CCEE workforce from marginalized groups, many of whom face barriers to accessing higher education.[27]

There was mixed evidence for an association between CCEE teachers' education levels and turnover. There was some evidence that higher education requirements can increase turnover, such as when teachers with bachelor's degrees left for jobs in the higher-paying K-12 sector.[28] However, other studies suggested the opposite.[29] One correlational study of Head Start and Early Head Start teachers found that teachers with an associate's degree were more likely to still be in their job six months later than teachers without an associate's degree.[30] Taken as a whole, the literature suggests that, in the CCEE field, higher education is not currently a major driver of advancement (or an increase in earnings and income) and may even increase sector-level turnover when individuals leave for higher-paying occupations.

Although the literature review revealed that the association between education and advancement was inconsistent, most of the strategies identified by the environmental scan target educator qualifications and competencies as a way to increase recruitment and retention within the CCEE workforce.[31] These strategies include apprenticeship and credentialing models, scholarship programs, and planned higher education pathways. Training opportunities vary in intensity and range from strategies that offer small stipends when participants reach educational milestones to fully funded apprenticeship programs with accompanying college credits. Structure and flexibility vary as well. Some strategies offer "at will" training opportunities without formal attendance or participation requirements, while others offer sequentially ordered content, with or without formal participation requirements. Finally, the goal and focus of training differ depending on which strategy is being employed. Some strategies, in particular those geared toward home-based educators, emphasize business model management, while others consist of coursework geared toward credentialing and postsecondary degree attainment.

Many strategies that target educator qualifications and competencies offer stipends or financial incentives to offset the costs of coursework or training. For the most part, stipends are relatively small and cover standard fees, like the CDA review and processing fees for submission to the Council for Professional Recognition, the nonprofit organization that administers the CDA. Some strategies offer financial incentives when participants reach critical milestones, like the completion of coursework, progress benchmarks, and degree or credential attainment. In general, stipends and financial incentives are designed to ease some of the financial barriers to participation or to incentivize continued participation, rather than to directly improve educators' economic well-being.

The strategies identified by the environmental scan are often inconsistent in how they define, achieve, and measure advancement in the CCEE workforce. Many implementing agencies of strategies state that furthering individuals' education, qualifications, and competencies is integral to the career advancement of the workforce, but few clearly articulate or define goals for career advancement or upward economic mobility. There is limited rigorous evidence testing the effect of strategies designed to promote job advancement on current or prospective CCEE educators. The literature review found that the most

common strategy to help workers gain credentials was to offer a financial incentive, such as a bonus or tax credit. The Teacher Education and Compensation Help (T.E.A.C.H.) Early Childhood Scholarship Program, which provides scholarships to educators to pursue postsecondary credentials, is perhaps the most well-known program that employs this approach. Follow-up data of participants in Pennsylvania's T.E.A.C.H. scholarship program show that a sizeable fraction of participants completed the program and gained additional credentials, but evidence on the program's effect is correlational, and the program had high dropout rates.[32] The findings across all the reviewed literature were somewhat encouraging; they suggested that there were some increases in credential receipt among participants.[33] However, the evidence was not strong, and implementation research suggested that there could potentially be high dropout rates and racial and ethnic disparities among those who did attain these credentials.[34] These disparities in education persistence are not unique to the CCEE field and have been seen in other workforce development initiatives. Evidence from studies in CCEE and in health care suggests that support services—such as tuition assistance, child care, and transportation vouchers—can indeed help people complete short-term training and obtain an initial credential, but many participants do not pursue additional education beyond that.[35]

The literature review, which drew on this evidence base surrounding supports and initiatives aimed at supporting postsecondary education progression, highlighted that more holistic and ongoing supports can help double graduation rates.[36] However, most strategies included in the environmental scan that focus on credentialing or degree attainment do not provide such supports. For CCEE employers to require higher education for entry and advancement without harming the diversity of educators, it will likely be necessary to develop strategies that provide holistic and ongoing supports.

Existing Strategies Miss the Needs of the Diverse CCEE Workforce

The CCEE workforce is primarily composed of women, many of whom are women of color. Although they do not make up the majority of the workforce, the percentage of women of color within the CCEE workforce is higher than in the general population.[37] About one-ninth of CCEE educators report that they were born outside the United States in both center- and home-based settings.[38] Despite the diversity of the workforce, existing research and strategies do not tend to focus on the unique strengths and needs of educators who are members of historically marginalized groups.

The literature review found that studies rarely investigated how the experiences of CCEE educators from diverse racial, ethnic, linguistic, or immigrant backgrounds varied. They also rarely considered factors—such as experiences with discrimination, racism, or bias—that might have affected educators' employment decisions, trajectories, or experiences. Those that did focus on these topics found evidence for discrimination, racism, and bias. For example, Black and Latina CCEE educators earned lower wages than White educators, in part because they were overrepresented in lower-paying positions (such as assistant teacher versus lead teacher, or teacher of infants or toddlers versus preschool teacher).[39] This disparity was not proof that they did not advance as far in their careers as their White peers, but there also was evidence that experience and education yielded lower returns for Black and Latina applicants and educators.[40] Additionally, there was some evidence showing that access to and persistence in strategies vary across different groups of educators. Educators from historically marginalized groups tended to drop out of strategies like T.E.A.C.H. at higher rates than their White counterparts.[41]

The environmental scan found that most implementing agencies recognize that they aim to support a workforce of women of color, and a few tailor their programs to serve marginalized groups. The most common approach is to provide supports or materials in languages other than English. These resources are most often provided in English and Spanish. For example, the Early Care and Education Pathways to Success apprenticeship program, which uses a cohort model to sort participants into peer cohorts for classes and coaching sessions, includes one cohort for Spanish speakers that receives bilingual instruction. While key informants from the environmental scan noted that other languages would be helpful, most implementing agencies do not have the capacity to provide translations in multiple languages. One exception is CentroNía's CDA training program, which is offered in English, Spanish, and Amharic. Informants also noted that even when supports and services to advance educators' qualifications and competencies are translated into other languages, this does not address the challenge that certification testing is often only available in English.

Another more intensive form of support is trauma-informed training, which acknowledges individuals' potential experiences with historical and racial trauma and aims to promote a culture of safety, empowerment, and healing. First Children's Finance, identifying that there are financial barriers that are unique to women and the Black, Indigenous, and people of color (BIPOC) community, created a set of business and resource management workshops called *Community Conversations with Early Childhood Entrepreneurs* designed explicitly for BIPOC entrepreneurs. These workshops provide a forum for participants to discuss their experiences of historical and racial trauma with peers. Similarly, a place-based bachelor's degree program in Colorado, in which individuals participate in coursework and earn credits at their place of employment, incorporates a strengths-based, culturally informed approach. This degree program helps participants earn college credit for prior professional development and coaching experiences and designs new coursework to meet the stated goals and priorities of individual participants. However, the literature review did not find any studies that examined the effectiveness of these in-depth supports.

Most strategies do not explicitly target and tailor supports to current or prospective CCEE educators with historically marginalized racial, ethnic, Indigenous, immigrant, refugee, or linguistic backgrounds. The environmental scan found that implementing agencies might not do enough to ensure individuals from marginalized groups are able to access and participate in their strategies. Some strategies have what appear to be onerous application and eligibility requirements that make participation difficult, if not impossible, for educators from marginalized groups. For example, individuals may be required to write personal statements, take part in interviews, or get sponsorship from employers. These steps, often intended to increase strategy completion, may act as barriers to participation or may exclude certain groups (like home-based child care owners and caregivers, non-English-speaking educators, or those new to the CCEE workforce) from taking advantage of the full landscape of supports.

Implications for Future Work in CCEE

The literature review and environmental scan were intended to inform policies and future directions to build and sustain the CCEE workforce. However, a multipronged analysis of the evidence base and current efforts in the field revealed major gaps in information about CCEE educators' experiences and how to effectively recruit, retain, advance, and strengthen this essential community of educators. In order to inform future policy directions, there is a need to improve available data about the CCEE workforce and the evidence surrounding strategies that are designed to support that workforce. The findings from this

knowledge review point to clear priorities for the field in terms of data infrastructure and future research. These findings are listed below.

To better understand CCEE workforce dynamics—that is, how educators enter, advance in, and exit out of different roles, settings, and types of care—the field needs to do the following:

- Consistently define and measure "actual" behaviors that make up workforce dynamics, like entry and turnover in the field.
- Examine individual educators' workforce dynamics and experiences over time.
- Focus on home-based child care educators' workforce dynamics and experiences with strategies, particularly family, friend, and neighbor care, as it may be one path of entry to the CCEE field.
- Understand how workforce dynamics differ across roles and settings.
- Understand the influence of multilevel factors—at individual, workplace, and contextual levels—either independently or jointly on workforce dynamics.
- Conduct research that explicitly takes a diversity, equity, and inclusion lens and that examines the effects of systemic racism, sexism, and classism on workforce dynamics and strategies.

To strengthen the evidence pertaining to strategies to effectively recruit, advance, and retain the CCEE workforce, the field needs to do the following:

- Examine participant engagement in strategies to better understand who they serve and the degree to which some strategies may mitigate or exacerbate inequities across the prospective and current workforce.
- Understand how implementation supports and local contextual conditions influence the relevance, implementation, and effectiveness of the strategies.
- Understand the variation and coordination in the implementation and core components of strategies that operate in multiple localities, systems, and states.

Box 3. Literature Review Methodology

The literature review involved a three-phase process: a preliminary search, an initial screening, and an in-depth review. First, the team searched academic research databases for relevant peer-reviewed articles that were conducted in the United States. It also examined gray literature—or research produced outside typical commercial or academic channels—that appeared on 36 websites of think tanks, nonprofit research organizations, university-based research organizations, and federal agencies. The team used search terms that combined job roles and settings (teacher *or* early educator *or* administrator *and* preschool *or* day care *or* child care *or* Head Start) and search terms related to workforce dynamics (turnover, entry, retention, advancement, commitment, satisfaction). The literature review also focused on publications that addressed psychological well-being.

From this preliminary search, the team identified 484 publications. To reduce the amount of material for the second phase, the team removed all dissertations and all publications that were more than five years old (from 2016 or earlier). The second phase consisted of an initial screening of 130 publications. For an article to move past this stage, it had to focus on at least one of four outcomes of interest: (1) turnover or retention, (2) recruitment and entry, (3) advancement, or (4) psychological well-being. It also had to provide descriptive statistics about—or examine predictors of—the outcomes of interest; examine the implementation or testing of a strategy; or have some focus on diversity, equity, or inclusion (for example, discriminatory hiring practices or the need for more Black male educators in CCEE).

The last phase consisted of an in-depth review of 97 publications. This process included a thorough read of each article and the completion of a detailed form to extract information on all relevant aspects of the publication (for example, study design; sample; and a description of key study aspects like the measures, analysis, and key findings). Once all articles were reviewed in depth—with a focus on how they related to the four outcomes of interest—the team identified overarching themes.

Box 4. Environmental Scan Methodology

The team employed a multiphased approach to identify and learn about the strategies currently underway to build, advance, and retain the CCEE workforce. These strategies were identified by an open call for information, an evaluation of prominent CCEE research and advocacy organizations' websites, a literature review, and recommendations from CCEE workforce development experts. High-level, publicly available information was gathered on 144 total strategies. These strategies targeted the following key levers of change, which are hypothesized malleable factors that are thought to be closely linked with CCEE workforce dynamics:

Educator economic well-being strategies aim to improve the income, earnings, or economic well-being of participating individuals and may include offering or putting into place financial incentives, wage increases, wage supplements, benefit supports (for example, expanding access to health insurance), career ladders, collective bargaining, or business coaching models and other business supports.

Educator qualifications and competencies strategies aim to improve the qualifications and competencies of participating individuals and include apprenticeship, scholarship, or credentialing programs.

Educator psychological well-being strategies aim to enhance how participating individuals perceive or cope with existing job demands and may include workshops and training sessions on topics like mindfulness and stress management.

Workplace demands or supports strategies aim to address structural-, social-, and setting-level factors or job-related factors. They may aim to reduce job stressors or provide resources to help educators accomplish work-related goals. Approaches may include marketing services, scheduling support, and substitute networks.

CCEE system alignment and inequities strategies aim to coordinate and align strategic initiatives underway to support and advance the CCEE workforce. They may make efforts to integrate and align data systems, and may also attempt to align, create parity, or bring cohesion to regulatory, funding, and monitoring activities, resources, and supports.

After identifying an initial set of strategies, the team solicited input from CCEE workforce development experts to ensure that major ongoing strategies were not overlooked and that these strategies represented an accurate distribution of those being implemented across the United States.

In the next phase, the team conducted 36 interviews with key informants involved in the development or implementation of 38 particular strategies. Lastly, the information from the discussions with key informants was then synthesized to identify emerging themes related to the intended models and theories of change underlying the strategies and approaches.

References

[1]Burchinal, Margaret, Katherine Magnuson, Douglas Powell, and Sandra Soliday Hong. 2015. "Early Childcare and Education." Pages 223–267 in M. H. Bornstein, T. Leventhal and R. M. Lerner (eds.), *Handbook of Child Psychology and Developmental Science: Ecological Settings and Processes*. Hoboken, NJ: John Wiley & Sons, Inc.; Markowitz, Anna J., Daphna Bassok, and Bridget Hamre. 2018. "Leveraging Developmental Insights to Improve Early Childhood Education." *Child Development Perspectives* 12, 2: 87–92.; Shonkoff, Jack P., and Susan Nall Bales. 2011. "Science Does Not Speak for Itself: Translating Child Development Research for the Public and Its Policymakers." *Child Development* 82, 1: 17–32.

[2]National Research Council. 2015. *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation.* Washington, DC: The National Academies Press.

[3]Whitebook, Marcy, Deborah Phillips, and Carollee Howes. 2014. *Worthy Work, STILL Unlivable Wages: The Early Childhood Workforce 25 Years After the National Child Care Staffing Study*. Berkeley: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California, Berkeley, 2014; McLean, Caitlin, Lea J. E. Austin, Marcy Whitebook, and Krista L. Olson. 2021. *Early Childhood Workforce Index 2020.* Berkeley: Center for the Study of Child Care Employment, University of California, Berkeley.

[4]Whitebook, Phillips, and Howes. 2014; Bassok, Daphna, Maria Fitzpatrick, Susanna Loeb, and Agustina S. Paglayan. 2013. "The Early Childhood Care and Education Workforce from 1990 Through 2010: Changing Dynamics and Persistent Concerns." *Education Finance and Policy* 8, 4: 581–601; Phillips, Deborah A., Sara Anderson, A. Rupa Datta, and Ellen Kisker. 2019 "The Changing Portrait of Center-Based Preschool Teachers: 1990 and 2012." *Children and Youth Services Review* 107; Porter, Noriko. 2012. "High Turnover Among Early Childhood Educators in the United States." Child Research Net. Website: https://www.childresearch.net/projects/ecec/2012_04.html; Schaack, Diana D., and Vi Nhuan Le. 2017. *The Colorado Early Childhood Workforce Survey 2017: Findings from Northeast Colorado*. Denver: University of Colorado Denver.

[5]Totenhagen, Casey J., Stacy Ann Hawkins, Deborah M. Casper, Leslie A. Bosch, Kyle R. Hawkey, and Lynne M. Borden. 2016. "Retaining Early Childhood Education Workers: A Review of the Empirical Literature." *Journal of Research in Childhood Education* 30, 4: 585–599; Whitebook, Marcy, and Laura Sakai. 2003. "Turnover Begets Turnover: An Examination of Job and Occupational Instability Among Child Care Center Staff." *Early Childhood Research Quarterly* 18, 3: 273–293.

[6]Adams, Gina, Danielle Ewen, and Grace Luetmer. 2021. *Supporting the Child Care and Early Education Workforce: A Menu of Policy Options for the COVID-19 Pandemic and Recovery*. Washington, DC: Urban Institute.

[7]Whitebook, Phillips, and Howes. 2014.

[8]Taylor, Harrison. 2023. *An Annotated Bibliography of Select Literature on the Child Care and Early Education Workforce: A Supplement to the BASE Knowledge Review Series,* OPRE Report 2023-243. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[9]Bernardi, Alexandra, JoAnn Hsueh, Sydney Roach, and Lisa Rau. 2023. *Child Care and Early Education Workforce Recruitment and Retention: Insights from a Current Landscape of Strategies,* OPRE Report 2023-178. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[10]Wiegand, Emily, Robert Goerge, Victor Porcelli, and Cynthia Miller. 2023. *Understanding the Child Care and Early Education Workforce: The Need for More and Better Data,* OPRE Report 2023-190. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[11]See, for example, Bassok, Daphna, Anna J. Markowitz, Laura Bellows, and Katharine Sadowski. 2021. "New Evidence on Teacher Turnover in Early Childhood." *Educational Evaluation and Policy Analysis* 43, 1: 172–180; Child Care Services Association. 2020. *Working in Early Care and Education in North Carolina*. Chapel Hill, NC: Child Care Services Association; Grant, Ashley A., Lieny Jeon, and Cynthia K. Buettner. 2019. "Relating Early Childhood Teachers' Working Conditions and Well-Being to Their Turnover Intentions." *Educational Psychology* 39, 3: 294–312.

[12]McDevitt, Seung Eun. 2020. "Tracing Diverse Pathways to Teaching: Tales of Nontraditional Immigrant Women of Color Becoming Teachers of Young Children." *Early Childhood Education Journal* 49: 325–335.

[13]Leifield, Lisa. 2020. "Influential Others: Infant/Toddler Teachers' Perspectives on Entry into and Retention in the Infant/Toddler Workforce." *Early Years: An International Research Journal* 45, 4–5: 465–479.

[14]LiBetti, Ashley. 2019. *Leading by Exemplar: Case Studies of Head Start Programs*. Boston, MA: Bellwether Education Partners.

[15]Schaack, Diana D., Vi-Nhuan Le, and Jennifer Stedron. 2020. "When Fulfillment is Not Enough: Early Childhood Teacher Occupational Burnout and Turnover Intentions from a Job Demands and Resources Perspective." *Early Education and Development* 31, 7: 1011–1030.

[16]Whitebook, Marcy and Dan Bellm. 2005. *Lessons from CARES and Other Early Care and Education Workforce Initiatives in California, 1999-2004: A Review of Evaluations Completed by Fall 2004*. Berkeley, CA: Center for the Study of Child Care Employment.

[17]Herbst, Chris M. 2016. *The Impact of Quality Rating and Improvement Systems on Families' Child Care Choices and the Supply of Child Care Labor,* IZA Discussion Papers, No. 10383. Bonn, Germany: Institute for the Study of Labor.

[18]Bellows, Laura, Daphna Bassok, and Anna J. Markowitz. 2021. *Teacher Turnover in Early Childhood Education: Longitudinal Evidence from the Universe of Publicly Funded Programs in Louisiana, EdWorkingPaper No. 21–453*. Providence, RI: Annenberg Institute at Brown University; Bassok, Daphna, Anna J. Markowitz, Laura Bellows, and Katharine Sadowski. 2021. "New Evidence on Teacher Turnover in Early Childhood." *Educational Evaluation and Policy Analysis* 43, 1: 172–180; Bridges, Margaret, Bruce Fuller, Danny S. Huang, and Bridget K. Hamre. 2011. "Strengthening the Early Childhood Workforce: How Wage Incentives May Boost Training and Job Stability." *Early Education and Development* 22, 6: 1009–1029; LeBoeuf, Whitney, Phil Perrin, and Stacey Kennedy. 2020. *Colorado's Early Care and Education Professionals: 2019 Snapshot Report*. Denver: Colorado Evaluation and Action Lab at the University of Denver; Oregon Center for Career Development in Childhood Care and Education, Portland State University and Oregon Child Care Research Partnership, Oregon State University. 2019. *Oregon Early Learning Workforce: Three Years Beyond Baseline Comparison of 2012 and 2018*. Corvallis: Oregon Child Care Research Partnership, OSU Family Policy Program.

[19]Bromer, Juliet, Samantha Melvin, Toni Porter, and Marina Ragonese-Barnes. 2021. *The Shifting Supply of Regulated Family Child Care in the U.S.: A Literature Review and Conceptual Model*. Chicago: Herr Research Center, Erikson Institute; National Survey of Early Care and Education Project Team. 2013. *Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE),* OPRE Report 2013-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[20]Herbst, Chris M. 2015. *The Rising Cost of Child Care in the United States: A Reassessment of the Evidence,* IZA Discussion Papers, No. 9072. Bonn, Germany: Institute for the Study of Labor.

[21]National Research Council. 2015.

[22]Johnson, Hans, Marisola Cuellar Meija, and Sarah Bohn. 2018. *Higher Education as a Driver of Economic Mobility*. San Francisco: Public Policy Institute of California.

[23]Boyd-Swan, Casey, and Chris M. Herbst. 2018. *The Demand for Teacher Characteristics in the Market for Child Care: Evidence from a Field Experiment,* IZA Discussion Paper No. 10702. Bonn, Germany: Institute of Labor Economics; Whitebook, McLean, Austin, and Edwards. 2018.

[24]Whitebook, Marcy, Caitlin McLean, Lea J. E. Austin, and Bethany Edwards. 2018. *Early Childhood Workforce Index 2018*. Berkeley: Center for the Study of Child Care Employment, University of California, Berkeley.

[25]Herbst. 2016.

[26]Bassok, Daphna. 2013. "Raising Teacher Education Levels in Head Start: Exploring Programmatic Changes Between 1999 and 2011." *Early Childhood Research Quarterly* 28, 4: 831–842.

[27]Boyd-Swan, Casey and Chris M. Herbst. 2017. *The Demand for Teacher Characteristics in the Market for Child Care: Evidence from a Field Experiment,* IZA Discussion Paper No. 10702. Bonn, Germany: Institute of Labor Economics.

[28]Totenhagen et al. 2016.

[29]Caven, Meg, Noman Khanani, Xinxin Zhang, and Caroline E. Parker. 2021. *Center- and Program-Level Factors Associated with Turnover in the Early Childhood Education Workforce,* REL 2021-069. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast and Islands; Gable, Sara, Tanja C. Rothrauff, Kathy R. Thornburg, and Denise Mauzy. 2007. "Cash Incentives and Turnover in Center-Based Child Care Staff." *Early Childhood Research Quarterly* 22, 3:363–378; Gable, Sara, Tanja Rothrauff, Kathy Thornburg, and Denise Mauzy. 2010. "Analysis of Ongoing Participation in a Child Care Workforce Cash Incentive Programme in the United States." *Early Child Development and Care* 180, 6: 719–734.

[30]Jeon, Lieny, and Michael B. Wells. 2018. "An Organizational-Level Analysis of Early Childhood Teachers' Job Attitudes: Workplace Satisfaction Affects Early Head Start and Head Start Teacher Turnover." *Child & Youth Care Forum* 47, 4: 563–581.

[31]Bernardi, Hsueh, Roach, and Rau. 2023.

[32]Miller, Joyce Ann, and Tania Bogatova. 2009. "Quality Improvements in the Early Care and Education Workforce: Outcomes and Impact of the T.E.A.C.H. Early Childhood Project." *Evaluation and Program Planning* 32, 3: 257–277.

[33]Campbell, Nancy D., Joan Entmacher, Helen Blank, and Amy K. Matsui. 2015. *Extra Credit: How Louisiana is Improving Child Care*. Washington, DC: National Women's Law Center; Miller and Bogatova. 2009.

[34]Miller and Bogatova. 2009.

[35]Peck, Laura R., Daniel Litwok, Douglas Walton, Eleanor Harvill, and Alan Werner. 2019. *Health Profession Opportunity Grants (HPOG 1.0) Impact Study: Three-Year Impacts Report*. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services; Sarna, Maureen, and Julie Strawn. 2018. *Career Pathways Implementation Synthesis: Career Pathways Design Study*. Bethesda, MD: Abt Associates; Schaberg, Kelsey. 2020. *Meeting the Needs of Job Seekers and Employers: A Synthesis of Findings on Sector Strategies*. New York: MDRC; Walton, Douglas, Eleanor L. Harvill, and Laura R. Peck. 2019. *Which Program Characteristics Are Linked to Program Impacts? Lessons from the HPOG 1.0 Evaluation*. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[36]Miller, Cynthia, Camielle Headlam, Michelle S. Manno, and Dan Cullinan. 2020. *Increasing Community College Graduation Rates with a Proven Model: Three-Year Results from the Accelerated Study in Associate Programs (ASAP) Ohio Demonstration*. New York: MDRC; Weiss, Michael J., Alyssa Ratledge, Colleen Sommo, and Himani Gupta. 2019. "Supporting Community College Students from Start to Degree Completion: Long-Term Evidence from a Randomized Trial of CUNY'S ASAP." *American Economic Journal: Applied Economics* 11, 3: 253–297.

[37]Schilder, Diane, and Heather Sandstorm. 2021. *Racial, Economic, and Social Justice for the Early Care and Education Workforce: Pre–, During, and Post–COVID-19*. Washington, DC: Urban Institute.

[38]Paschall, Katherine, Rebecca Madill, and Tamara Halle. 2020. *Demographic Characteristics of the Early Care and Education Workforce: Comparisons with Child and Community Characteristics,* OPRE Report 2020-108. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[39]Austin, Lea J. E., Bethany Edwards, Raúl Chávez, and Marcy Whitebook. 2019. *Racial Wage Gaps in Early Education Employment*. Berkeley, CA: Center for the Study of Child Care Employment.

[40]Boyd-Swan and Herbst. 2019.

[41]Miller and Bogatova. 2009.

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