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THE SHIFTING SUPPLY OF REGULATED FAMILY CHILD CARE IN THE U.S.

A Literature Review and Conceptual Model



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A LITERATURE REVIEW AND CONCEPTUAL MODEL

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PREFACE

Our initial concern about the decreasing numbers of family child care (FCC) providers in the U.S. emerged from our interviews with family child care network directors as part of Erikson Institute's National Study of Family Child Care Networks (Porter & Bromer, 2020). They shared many stories about providers' decisions to leave the field as a result of the challenges they faced. As evidence about the decrease in FCC supply began to accumulate, we came to realize that the field knows little about the factors behind this shift. This was important to examine because so many families and children rely on home-based child care, in general, and FCC in particular. We also know that the supply of FCC is an equity issue in need of a strong policy response, given that Black and Latinx families, families working low-wage, non-traditional hour jobs, and immigrant families disproportionately rely on these arrangements for care of their youngest children.

The current COVID-19 pandemic has heightened awareness of the FCC supply as states and communities have begun to recognize the crucial role these providers play in the lives of families. During the initial months of the pandemic, many FCC providers across the country opened their homes for children of essential workers while more child care centers remained closed (National Association for the Education of Young Children, 2020). Yet, anecdotal reports and data from our Multi-State Study of Family Child Care Decline suggest that home-based child care (HBCC) providers who are offering essential care are not acknowledged or supported for this work (Porter et al., 2020). Providers reported lacking adequate supplies of protective and sanitation materials (wipes, masks, cleaning supplies, etc.) and many felt at risk because they lacked health insurance. For those FCC providers who closed, few may have had savings or resources to make ends meet; most FCC providers reported not qualifying for small-business government loans.

This literature review was conducted during the COVID-19 outbreak. We believe that this crisis has highlighted the crucial role that FCC providers play in the lives of families and children and underscores the need to understand the factors that contribute to changes in FCC supply. We hope this report can inform policy and program decisions about strategies to redress the contraction of FCC and to build a robust FCC supply to meet the needs of working families and their children.

INTRODUCTION

Home-based child care (HBCC) represents the most prevalent non-parental child care arrangement for children under age five in the U.S. (National Survey of Early Care and Education [NSECE] Project Team, 2013). HBCC includes both regulated family child care (FCC) providers¹ and unregulated family, friend, and neighbor caregivers (FFN) who may or may not be paid to offer child care. More infants and toddlers are cared for in HBCC settings than center-based early childhood programs (NSECE Project Team, 2016). HBCC providers are likely to work with children from families of color and those living in poverty, families who work non-traditional hour jobs, and new immigrants who work in entry-level, low-wage jobs (Laughlin, 2013; NSECE Project Team, 2015).

Regulated FCC providers include those who are licensed, certified, or registered (depending on state policies). They are an important segment of the HBCC workforce, although they account for a small proportion of HBCC. Regulated FCC providers may see themselves as part of the early care and education (ECE) profession and may participate in public systems that seek to help families find high-quality care that supports both parental employment and children's development. The majority of regulated FCC providers operate small FCC homes where the provider is the sole caregiver, in contrast to large FCC homes where two or more providers offer child care (National Center on Early Childhood Quality Assurance [NCECQA], 2020). Like the children and families they often care for, national estimates indicate that Black and Latina women are slightly overrepresented in FCC settings compared to the overall U.S. population (Whitebook et al., 2019), making the decreasing supply of FCC an equity issue for providers as well as families.

Over the past decade, the supply of regulated FCC has decreased substantially. The longitudinal Child Care Licensing Studies estimate a 42% overall decrease in licensed FCC supply between 2005 and 2017, with small FCC settings accounting for this steep drop (NCECQA, 2020). During the same period, the availability of subsidized FCC for children whose families have low incomes fell by more than half (51%; NCECQA, 2020).

High-quality FCC has the potential to enhance children's well-being by providing: 1) environments that are safe and healthy, and 2) caregivers who are sensitive and responsive to children's needs, and foster children's positive development. Common features of these settings — small mixed-age groups of children and the potential for a cultural and linguistic match between the provider and children — can promote children's positive outcomes (Blasberg et al., 2019).

FCC may also contribute to positive outcomes for parents. FCC providers are more likely than centers to offer flexible child care arrangements that meet parents' non-standard and unpredictable work hours (NSECE Project Team, 2015; Rachidi et al., 2019). With their small group settings, FCC providers may also be more likely to promote strong provider-family partnerships which, in turn, may contribute to: 1) increased family engagement in children's development, 2) reduced parenting stress and improved mental health, and 3) positive parent-child relationships (Forry et al., 2012; Jeon et al., 2018).

This literature review and conceptual model examine research on the factors that may contribute to the decrease of regulated FCC supply. The research literature primarily focuses on challenges and demands that FCC providers face which we hypothesize that, over time, may lead to decisions to close their programs. Very few studies examine the predictors or reasons why individual providers exit FCC and even fewer studies examine the role of broad contextual factors such as economic recessions, systemic racism, and policy changes that may interact with the experiences and challenges that FCC providers face.

¹ While some people who offer FCC do prefer the term provider, an increasing number prefer educator. In this report we use the term "provider" because it is used most frequently across research studies.

BACKGROUND

WHAT IS REGULATED FAMILY CHILD CARE?

Although the term “family child care” is used widely in the ECE field, we lack clear definitions for FCC and who is included in this population. In this literature review we focus on regulated FCC providers – those who are licensed, certified, or registered by their state or county. We do not include FFN caregivers or providers who are not licensed, certified, or registered, but who may participate in other publicly-funded programs such as Child Care Development Fund (CCDF) subsidy programs or the Child and Adult Care Food Program. Some of the literature we reviewed, however, does not make these distinctions.

The 2012 National Survey of Early Care and Education (NSECE) offers the most comprehensive portrait of HBCC prevalence in the U.S. (see Table 1). The NSECE does not use regulatory or licensing status as a definitional indicator of provider type. Instead, the NSECE distinguishes HBCC providers by whether they appear on state or national lists of early care and education services and whether they are paid to provide child care.

Table 1 shows the estimates of HBCC prevalence, for children age 5 and under and not yet in kindergarten, compared to centers. HBCC providers who appear on state or national lists (“listed providers”) are most likely to be regulated FCC providers. NSECE researchers estimate that 88% of listed providers are FCC, defined as paid, offering care in the provider’s home, and not having a prior relationship with at least one child in care. Unlisted HBCC providers are most likely to be FFN, unregulated or legally-exempt from regulations who may provide care in their own homes or the child’s home. NSECE researchers estimate that approximately 22% of unlisted HBCC providers may look more like FCC providers because they are paid, offer care in their own home, and care for children with whom they do not have a prior relationship (NSECE Project Team, 2016). These national data suggest that the numbers of regulated FCC programs may be close to that of centers although they enroll far fewer children (Table 1).

Sparse research exists on FCC providers’ shifts within the ECE workforce. Few studies have examined FCC movement to other ECE settings such as center-based programs, providers’ transitions from operating small FCC homes to large FCC homes, or exit from the ECE field altogether. Nor is there much research on new providers’ entry into the regulated FCC sector. A better understanding of the factors that contribute to these changes may inform strategies for maintaining and rebuilding the supply of high-quality FCC for families and their young children.

**TABLE 1. PREVALENCE OF HOME-BASED CHILD CARE
NATIONAL SURVEY OF EARLY CARE AND EDUCATION (NSECE)**

	Listed HBCC (88% FCC)	Unlisted paid and unpaid HBCC (mostly unregulated FFN but 22% FCC)	Center-based programs*
Number of settings	118,000	3,649,000	129,000
Number of children birth through age 5 and not yet in kindergarten	751,000	6,400,000	6,980,000

Sources: National Survey of Early Care and Education Project Team (2016). *Characteristics of Home-based Early Care and Education Providers: Initial Findings from the National Survey of Early Care and Education*. OPRE Report #2016-13, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

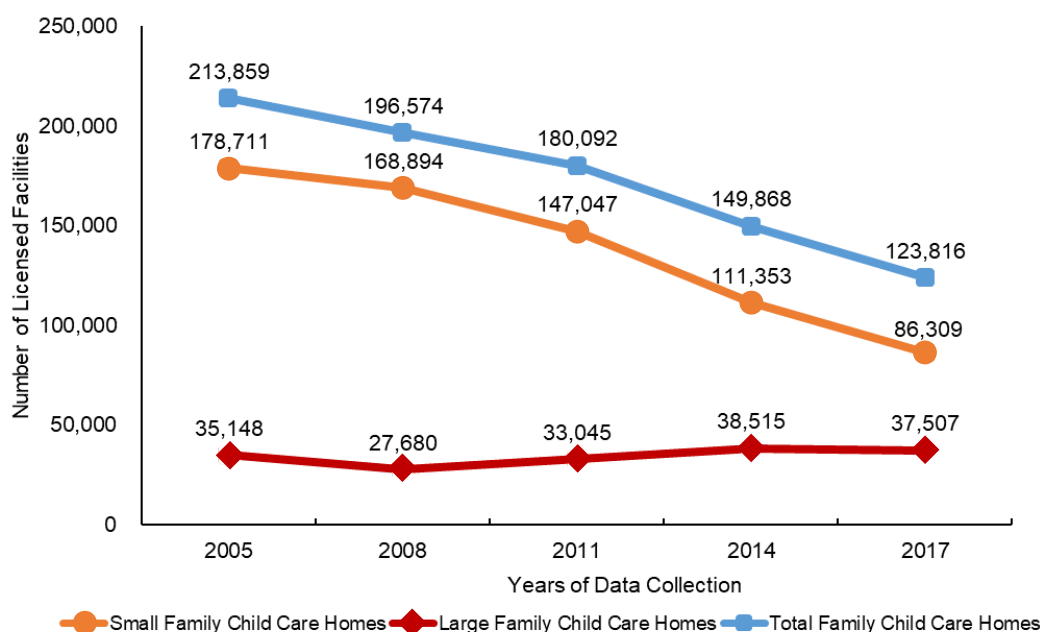
National Survey of Early Care and Education Project Team (2014). *Fact Sheet: Characteristics of Center-based Early Care and Education Programs*. OPRE Report No. 2014-73b, Washington DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

*Center-based programs include Head Start facilities, preschools and pre-kindergarten classrooms in public schools, private nursery schools, child care centers.

WHAT DOES THE FCC DECREASE LOOK LIKE?

Evidence from the national Child Care Licensing Study suggests that the supply of regulated FCC, particularly small FCC, fell by nearly half from 2005 to 2017 (NCECQA, 2020). Some of this decrease is likely attributable to closures during and after the 2008 Great Recession, when enrollment dropped due to higher unemployment and decreased demand for child care (United States Government Accountability Office, 2010). However, the decrease in the number of small FCC providers was considerably steeper from 2011 to 2017 than from 2005 to 2011 (Figure 1). This suggests that additional factors above and beyond the impacts of a nationwide recession have continued to contribute to the declining supply of regulated FCC.

FIGURE 1.
NUMBER OF LICENSED SMALL FCC HOMES AND LARGE FCC HOMES, 2005-2017



Source: Recreated chart from *The National Center on Early Childhood Quality Assurance (2020). Addressing the decline in family child care. Administration for Children and Families, Office of Child Care.* https://childcareta.acf.hhs.gov/sites/default/files/public/addressing_decreasing_fcc_providers_revised_march2020_final.pdf

Analyses of data from the licensing study provide additional information about the scope of the decline. While not all states use both small and large FCC distinctions, state-level data indicate that the number of small FCC programs decreased in 41 of the 42 states that use this designation. The number of large FCC programs decreased in 25 of 34 states (Fischer & Martella, 2013; Fischer & Orłowski, 2020).

WHY DOES THE DECREASE IN FCC AVAILABILITY MATTER FOR CHILDREN AND FAMILIES?

The documented decrease in the numbers of regulated FCC programs across the U.S. has implications for equitable access to child care for children and families. A robust high-quality FCC workforce is essential, particularly for families who work in low-wage, non-traditional hour jobs, those with infants and toddlers, those who live in rural areas, and families of color. Parents with children under age five often report difficulty finding affordable, regulated child care. As many as half (51%) of families live in an area designated by what some researchers refer to as a “child care desert,” defined as three children in need of regulated child care for every licensed child care slot (Malik et al., 2018). Although this term may be misleading because it does not capture the availability of unregulated FFN care, access to regulated arrangements in FCC and centers remains a pressing concern for families who may prefer these settings.

Access to child care is a particular concern for certain groups of families. The 2014 Child Care Development Block Grant (CCDBG) reauthorization identified four categories of families on whom states must focus efforts to increase the supply and quality of services (Office of Child Care, 2016). These categories included families needing non-traditional hour care, families with infants and toddlers, families living in rural areas, and families who have children with disabilities. Henly and Adams (2018) found that these four “priority populations” of families experienced significant challenges using center-based child care, thus highlighting the need for HBCC options. We also proposed that families of color are another priority population that may intersect with these other categories but who also may face distinct challenges accessing child care due to experiences of racism. The following sections describe some of the factors that may contribute to the choice and use of FCC rather than center-based child care for families. Current evidence suggests that families whose children have disabilities are more likely to use FFN care rather than FCC (Forry et al., 2013), so we do not focus on that population here.

Families working non-standard hours. Parents who work non-traditional schedules rely on HBCC because it is often more flexible than center-based care and because families may prefer home settings for evening or overnight care (Sandstrom et al., 2018). Finding care that is offered outside of Monday through Friday daytime hours or care that accommodates unpredictable or unstable work schedules is a significant challenge for families working low-wage jobs (Ben-Ishai et al., 2014; Enchautegui, 2013; Henly & Adams, 2018; Li et al., 2014). Far higher proportions of FCC providers meet these needs than center providers. The 2012 NSECE found that approximately a third (34%) of listed providers (mostly regulated FCC) offered care during these non-standard hours compared to 8% of center-based providers (NSECE Project Team, 2015).

Parents have even greater difficulty finding regulated child care options that can accommodate last minute changes in work schedules (Ben-Ishai et al., 2014). In a study of 50 mothers in Chicago who were not married, a quarter of participants received their work schedule with less than one week’s notice and respondents reported having challenges with variable schedules, especially when they had short notice to find child care (Stoll et al., 2015). Regulated FCC providers may be more likely to meet these needs: 70% of listed providers (mostly regulated FCC) in the 2012 NSECE reported offering flexible hours of care compared to 45% of center-based providers (NSECE Project Team, 2015). Local studies of child care find similar patterns. A recent descriptive study of infant and toddler programs in New York City’s subsidy system found that 70% of regulated FCCs changed their hours to meet families’ needs, compared to 28% of centers (Reid et al., 2020).

Families with infants and toddlers. Families who struggle to find care for their very young children may turn to FCC, who are more likely to care for children across age groups from infants to school age. According to NSECE data, 80% of listed (mostly regulated FCC) providers cared for infants and toddlers as well as older children compared to 67% of centers that cared for both age groups (NSECE Project Team, 2016). As Henly and Adams (2018) suggest, families with infants and toddlers are often faced with few child care options due to multiple factors including the high cost of regulated center-based child care and lack of center-based programs that enroll infants and toddlers. Some families may also prefer smaller, more intimate settings such as FCC for their young children.

Families living in rural areas. Families living in rural areas may also prefer the convenience and affordability of FCC settings, especially when there are often few center-based options available (Anderson & Mikesell, 2019; Malik et al., 2018). The feasibility of center-based child care in rural areas may be challenging for both providers and families with the high cost of running a facility, the significant transportation burdens, and the challenges of finding enough families in a rural geographic area to fill a center’s capacity (Henly & Adams, 2018). A recent study of child care use among families with low incomes found that living in a rural area increased the likelihood of using FCC by 13% and reduced the likelihood of using center-based care by 16% (Carlin et al., 2019).

— **Families of color.** Not included in these designations of priority populations but likely to intersect with them are families of color, who also are more likely than white families to experience barriers to child care access due to experiences with systemic racism. Black and Latinx families are overrepresented in jobs more likely to have low-wage, non-traditional hours, Asian American and Latinx families have low levels of access to child care subsidies, and Latinx and Indigenous families are more likely to live in areas without regulated child care slots available (Sethi et al., 2020). All of these access issues mean that many families of color rely on HBCC including regulated FCC for the reasons cited above (infant-toddler care, non-traditional hour care) as well as the possibility of a racial, cultural, and/or linguistic match between provider and family (Gordon et al., 2013). Decreases in the availability of FCC may, therefore, disproportionately affect Black, Latinx, Indigenous, Asian American, and other marginalized families.

METHODS

The goal of this literature review was to identify and explore the potential factors that contribute to the decrease in FCC supply and develop a conceptual model that illustrates the factors that shape workforce dynamics in FCC. Databases searched included Google Scholar, Google, PsycInfo, ProQuest, and Child Care and Early Education Research Connections. To identify potential factors, we first used search terms such as family child care, family day care, family childcare or home-based child care paired with decline, supply, decrease, turnover, tenure, or engagement. As we built the list of factors, we included the factors for exit noted in the NCECQA (2020) report on the decline, as well as factors related to providers' decision making proposed by Adams and Rohacek (2019). In addition, we consulted with research experts, child care policy and program stakeholders, and state child care administrators who helped us to identify reports on the decline and potential factors to add to our search terms. After we compiled a list of potential factors, we conducted a second set of searches that included additional terms relevant to each identified potential factor. As new potential factors emerged, we added them to the search. We entered each article or data source into a spreadsheet, noting: 1) the source type, 2) research questions, 3) study design, method, and sample, 4) key findings, and 5) relevant keywords.

A significant part of our review focuses on the findings of six peer-reviewed empirical studies that explicitly examined the correlates and predictors of FCC provider intent to exit, actual exit, intent to stay, or commitment to FCC work (conceptualized in these studies as a component of professionalism or professional engagement) (see Appendix A, Table 1 for a summary of these articles). We also found one literature review that included research examining the correlates of FCC provider turnover. The six correlational studies offer useful findings about the relationship between working conditions, income, and stress in FCC that may set the stage for future research. Notably, four of these six articles were published prior to 2002 and therefore may have limited generalizability to the current context.

The remaining 64 articles in our review were used to supplement our understanding of the challenges FCC providers face that, together, may lead to exit, as well as the supports that may keep them engaged in FCC work. Information about methods, contexts, and samples for each article is detailed in Appendix A, Tables 1-6. Studies were evenly split between peer-reviewed articles and gray literature (including reports, books, and policy briefs). The majority of studies were descriptive and used a variety of quantitative, qualitative, and mixed methods. Our review included five literature reviews. Almost all of the articles in our review focused on a United States context. The two exceptions were from Canada (Doherty et al., 2006) and Australia (Wong & Cumming, 2010), both of which incorporated FCC homes into their ECE systems in similar ways as in the U.S. Most of the studies had a sample of providers from single state or community context, but a few analyzed national or multi-state data; we specify the relevant context throughout the review.

We attempted to limit the research in our review to studies that focused on the experiences of regulated (i.e. licensed, registered, certified, and/or listed) FCC providers. None of the studies in our review focused on exclusively informal or license-exempt providers. However, because these definitions vary over time and by state, it was often difficult to determine whether a study's findings focused on regulated FCC providers specifically. A few studies included FCC providers in their samples (e.g. of ECE educators broadly), but

did not detail the number of FCC providers in the sample. In studies that included multiple ECE types (e.g. center-based care, FCC, and informal care), some disaggregated findings by setting type. Throughout the review, we have noted the population studied to contextualize the findings.

Women of color make up nearly 40% of the FCC workforce (Whitebook et al., 2019), but are often underrepresented in research on FCC. Twenty two studies in this review did not list race or ethnicity as a demographic characteristic at all, and almost no studies meaningfully explored differences in FCC experiences by racial or ethnic identity. For example, of the six correlational studies in the first part of our review, one did not report the race/ethnicity of the sample; two had almost exclusively white samples; one only reported the sample as proportion white versus non-white without detailing the diversity of the providers of color in the sample; and two observed trends in provider exit by racial/ethnic identity.

The remaining studies had varying degrees of racial and ethnic representation, often corresponding with their state/local context, and a handful focused intentionally on the experiences of providers of color (e.g. all Black providers or all Chinese providers). We found only three studies that included any FCC providers from Indigenous communities, suggesting a gap in knowledge about Indigenous provider experiences. We acknowledge the racial and ethnic composition of the samples throughout the review in recognition of the fact that providers' racialized experiences may shape their challenges with the work and may not be generalizable to other groups.

Finally, to enrich our understanding of these articles' findings, how the various factors may relate to one another, and the broader social and economic context in which they are situated, we also reference descriptive statistics, other empirical literature, and theoretical work as appropriate throughout the review. These additional references are not included in the literature review, but were essential to framing the hypotheses about the interconnected factors that contribute to decreases in FCC supply.

CONCEPTUAL MODEL OVERVIEW

The conceptual model presented here was informed by our literature review and is intended to serve as a road map for this report (see Figure 2). The model builds on work developed by Adams and Rohacek (2019) that hypothesized factors related to child care providers' individual decision-making behaviors across types of ECE including centers and regulated FCC. Our model, however, focuses specifically on FCC and the work- and system-related factors, individual factors, available support factors, and societal factors that may interact to influence the broad shifts in FCC supply.

Our conceptual model is situated within the shifting economic and social context of the United States. Throughout this review, we consider the ways contextual variables like economic shifts, systemic racism and income inequality, demographic shifts, and policy changes shape FCC workforce dynamics. We also acknowledge that societal values around care work and the devaluing of women's home-based labor may also shape the experiences of FCC providers (Tuominen, 2003). These variables may compound existing challenges and contribute to FCC provider decisions to remain in or leave the field.

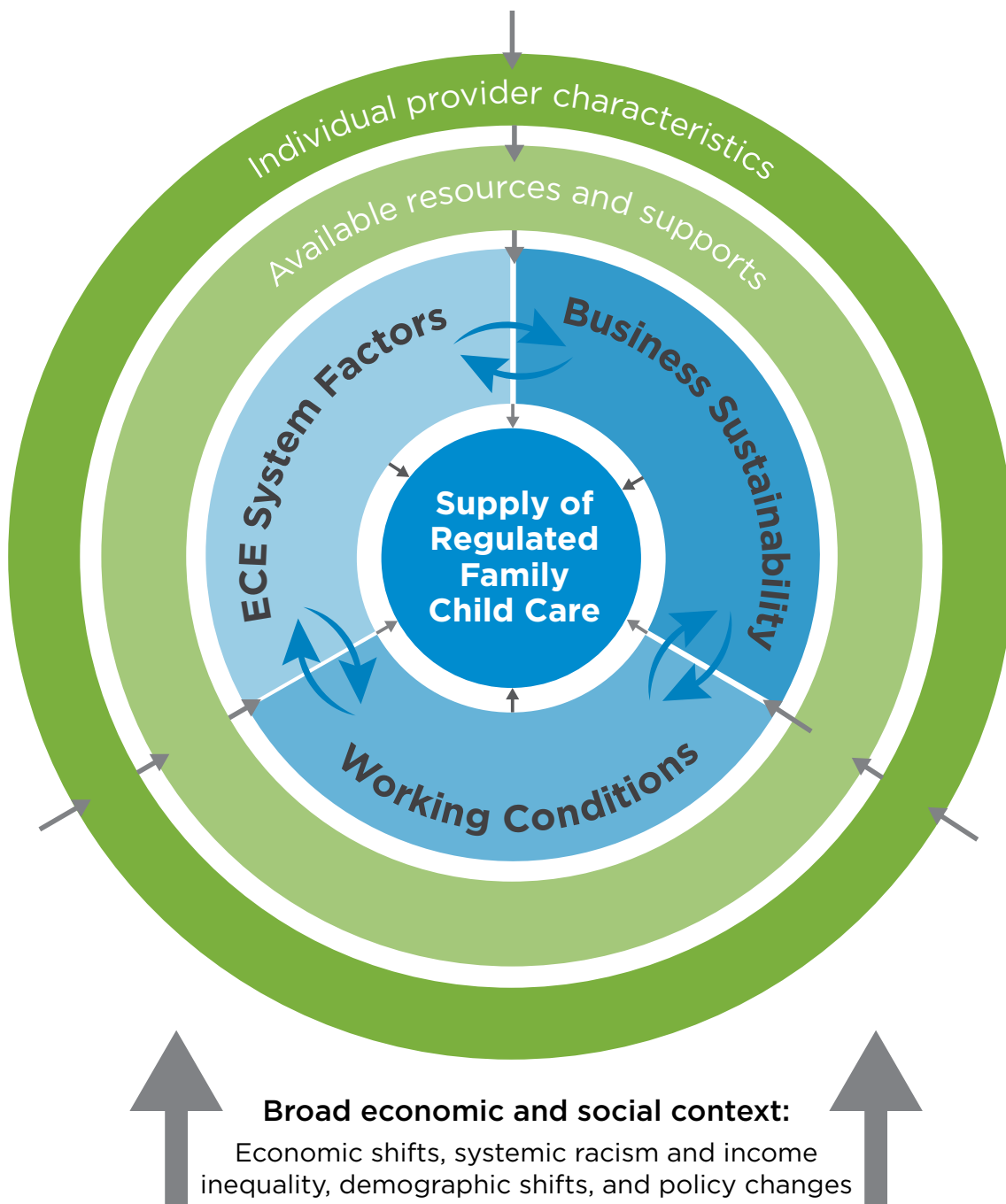
At the center of our conceptual model are three core factors which, together, may contribute to the decrease in the FCC supply (see Figure 2): 1) working conditions (e.g. long hours and isolation); 2) business sustainability (e.g. income and enrollment); and 3) provider experiences participating in ECE systems (e.g. licensing, Quality Rating Improvement Systems, and subsidy). The arrows in the model suggest multiple interactions within and across these contributing factors that may help explain the decline of FCC. For example, difficult working conditions combined with challenges related to business sustainability in the face of ECE system requirements may make FCC a challenging career choice to sustain.

We also hypothesize that available and accessible professional development supports and resources may contribute to individual providers' job commitment and intent to stay in the field. Participation in these supports may buffer some of the challenging core factors and make it easier for FCC providers to continue the work. For example, family child care networks and peer supports may provide opportunities for business sustainability as well as counter challenges around feelings of isolation and stress from working alone.

In addition, the model assumes that provider individual characteristics may interact with each other to directly contribute to provider decisions to stay in or leave FCC, or do so indirectly by shaping provider experiences with the core factors as well as access to supports. For example, motivation to offer FCC may determine whether a provider decides to participate in ECE systems which could offer financial and business support. Health or psychological well-being may shape a provider's capacity to manage the demands and conditions of running a home-based child care business.

In the following sections, we review the literature that supported the development of each hypothesized factor leading to shifts in the supply of FCC.

FIGURE 2.
CONCEPTUAL MODEL FOR CONTRIBUTING FACTORS TO THE
SHIFTING SUPPLY OF REGULATED FCC



BROAD ECONOMIC AND SOCIAL CONTEXT OF SHIFTS IN FCC SUPPLY

Our conceptual model embeds core factors and influences on FCC programs in a broad economic and social context. This literature review did not find empirical studies that directly examined the impact of large-scale economic and social changes on FCC supply, but we take into consideration four broad contextual and intersecting factors throughout this review: 1) economic shifts such as recessions; 2) systemic racism and economic inequality; 3) demographic shifts; and 4) policy changes. Throughout this review we examine the roles that each of these contextual variables may play in relation to the challenges of FCC work and potential for exit.

The Great Recession of 2008 resulted in high unemployment and decreased demand for child care, resulting in a national drop in the number of children receiving child care subsidies across settings (United States Government Accountability Office, 2010). State-level budget cuts during this time also led to fewer resources and access to supports within ECE systems (Joseph & Lloyd, 2014). Findings from the Child Care Licensing Study documented an initial decline in the number of FCC programs between 2005 and 2011 that may be partially attributed to the Great Recession (NCECQA, 2020), but did not specifically examine the source(s) of this shift. The current economic downturn resulting from COVID-19 has also decimated the child care sector nationwide (NAEYC, 2020), and may continue to disproportionately affect FCC providers who do not have the infrastructure or capacity to weather sustained loss of enrollment or income over time.

Recent global uprisings for racial justice combined with increasing disparities in health outcomes highlighted by the COVID-19 pandemic bring to the forefront the disproportionate trauma of this period for Black, Indigenous, Latinx, and other communities of color. Anti-Asian racism and xenophobia are also on the rise (Sethi et al., 2020). We are already seeing the differential impact of these events on permanent FCC business closures: an estimated 51% of child care businesses owned by people of color that were still open in December 2020 expected their programs to close permanently without additional assistance, compared to only 1 in 3 of all FCC providers who were still open (NAEYC, 2020). These challenges, coupled with a legacy of systemic racism, are likely to exacerbate marginalized providers' experiences of stressful working conditions, discriminatory interactions with systems, and access to supports.

Broad demographic shifts such as decreasing birth rates (Child Trends, 2019; Johnson, 2020), increasing proportions of children of color in the U.S. (Child Trends, 2018), and shifts in industry employment (Bureau of Labor Statistics, 2020b), may also shape many of the factors described in this review, with likely longer-ranging impacts on FCC supply.

Finally, broad changes in economic, political, social, and cultural contexts are important drivers of ECE policy system design (Kagan, 2019) and ensuring equitable implementation (Iruka, 2020). Changes in licensing, subsidy, and quality system standards and implementation provide examples of how policy changes may lead to unintended consequences and increased inequities for participating providers. Between 2011 and 2014, for example, half of the states enacted new, more complex licensing requirements, including higher pre-service requirements and new in-service training hours, nutrition and health regulations, orientation trainings, and inspections required before granting a license (NCECQA, 2015b). Similarly, requirements for subsidy participation have become more stringent since the 2014 CCDBG reauthorization, including new monitoring and health and safety training requirements as well as criminal background checks for household members (Office of Child Care, 2016). Many states are simultaneously revising or have revised their quality rating and improvement (QRIS) standards with new requirements for FCC providers such as increased educational and degree requirements (BUILD Initiative & Child Trends, 2019). While many of these changes are important to protect child health, well-being, and access to high-quality ECE experiences, little attention has been paid to the financial difficulty they may present to FCC and other home-based providers without additional compensation and support. Moreover, subsidy policy requirements for household member criminal background checks may also disproportionately impact families of who live in communities where contact with the criminal justice system is pervasive. Changes in policies as a result of these contexts are likely to influence the challenges providers may face related to working conditions, business sustainability, and participation in ECE systems.

At the time of this writing, it is likely that many of the trends and challenges identified in this review will continue to impact the FCC workforce during and after the current health crisis and economic recession related to the COVID-19 pandemic. Early examinations of how the crisis affected FCC providers suggests that many remained open throughout the duration of the pandemic (Porter et al., 2020) and that this may lead to a temporary increase in FCC usage among families who see these settings as safer than center-based programs.

FINDINGS FROM THE LITERATURE REVIEW

CORE FACTORS THAT MAY CONTRIBUTE TO DECREASES IN FCC

The following sections describe three categories of factors that research in this review suggests may contribute to the decrease in FCC supply: 1) working conditions; 2) business sustainability; and 3) FCC experiences participating in ECE systems. While these sections examine each of these factors in isolation, our model acknowledges that these core factors may interact to lead to decreases in FCC programs. Specifically, challenges a provider faces in one area (e.g. long hours and working alone) might be closely related to challenges in other areas (e.g. managing administrative responsibilities and meeting conflicting system requirements).

WORKING CONDITIONS

FCC programs have features that may distinguish them from other types of ECE settings, including care in a home setting and a wide range of age groups, and, for small FCC homes, a single provider who typically works alone (Blasberg et al., 2019). Management of these working conditions in FCC settings may pose both challenges and opportunities for providers. Long hours, isolation, and multiple job demands within the home setting may contribute to driving providers out of the work. On the other hand, caring for children of different ages and abilities and developing close relationships with families may be aspects of the work that providers find satisfying. Some of these working conditions in FCC settings may also be shaped by the lack of public recognition and respect for home-based labor and women's work. Public and societal undervaluing of domestic care work as well as historical origins of and stereotypes about the care work of enslaved Black women may contribute to some of the difficult working conditions faced by FCC providers today (Vogtman, 2017; Sethi et al., 2020; Tuominen, 2003).

WORKING CONDITIONS

- Long hours and isolation
- Management of home and child care
- Caring for children across age groups and abilities
- Working with families

Five of the six correlational studies and the literature review that examined FCC provider commitment to the workforce identified working conditions and work-related stress as correlates of providers' intentions to exit, actual exit, or commitment to FCC (see Appendix A, Table 1). Stress was defined in different ways, and multiple measures were used to assess stress across these studies. Four studies examined stress levels among FCC providers using measures of role overload, emotional exhaustion and burnout, job problems (such as isolation, working with children and parents), and job demands, job control, and job satisfaction (Corr et al., 2014; Lee et al., 2019; Todd & Deery-Schmidt, 1996; Walker, 2002). One study used a measure of stress that examined providers' management of interpersonal relationships (Swartz et al., 2016).

Three of these studies found that providers with higher stress were more likely to consider exit or actually leave FCC work (Corr et al., 2014; Swartz et al., 2016; Todd & Deery-Schmidt, 1996). In their longitudinal study of FCC providers' turnover in one midwestern community, Todd and Deery-Schmidt (1996) found that FCC providers who experienced higher levels of work-related stress (including report of job problems, burnout, and role overload) were more likely to have exited FCC at a two-year follow-up. In a literature review on child care provider well-being, Corr et al. (2014) cited research that FCC providers who experienced more job-related stress were more likely to report an intent to leave the work. Similarly, in a study using administrative data on regulated FCC providers' experiences and professional engagement in Illinois, Swartz et al. (2016) found that FCC providers who reported experiencing high levels of psychosocial stress around managing relationships and personal responsibilities reported being more likely to consider exiting FCC.

Two other studies found that providers with lower stress were more likely to report commitment to and engagement in FCC work (Lee et al., 2019; Walker, 2002; Weaver, 2002). A cross-sectional study of work engagement among both FCC and center-based child care workers in one southwestern state found that feelings of job control (autonomy and decision-making) and satisfaction were high among FCC providers and were associated with higher self-reported work engagement (Lee et al., 2019). The study also found a significant relationship between job demands (stress) and engagement among FCC providers who reported low levels of job satisfaction. A study of predictors of professional development and commitment among FCC providers in Maryland found that lower job stress and role overload were related to greater self-reported job commitment (Walker, 2002).

The following sections review research on specific aspects of working conditions in FCC that may contribute to stress and the turnover in the FCC workforce (see Appendix A, Table 2 for reviewed articles on working conditions factors).

- Long hours and isolation.** The small, single provider model most common in FCC often results in providers working long hours alone without meaningful contact with other adults (Smith & Granja, 2018). Data from the 2012 NSECE found that 50% of listed providers (mostly regulated FCC) did not have a paid assistant and 83% worked more than a 40-hour week (NSECE Project Team, 2016). Descriptive research in this review identified isolation and long working hours as common challenges for FCC providers (Corr et al., 2014; Mimura et al., 2019; Porter & Bromer, 2020).

A review of child care providers' mental health and well-being across studies identified isolation and long working hours as contributors to provider work-related stress (Corr et al., 2014). In a study of regulated FCC providers in Oregon, Rusby et al. (2013) found that working alone without an assistant was the strongest predictor of higher levels of self-reported job stress, although long working hours were not a significant correlate of stress. In her ethnographic study of FCC providers' perspectives on their work, Tuominen (2003) finds long hours and "invisible work" that takes place before and after children arrive and leave each day are among the challenges faced by FCC providers.

- Management of home and child care.** The daily management of home and child care in the same physical environment is a common feature of FCC programs. Some providers have the option to offer care in their basements or in other separate rooms of their homes, but many providers use their own family space for child care. We did not find research in this review that examined an association between this aspect of FCC work and exit, although we did find descriptive research which suggested that how providers use the space in their homes for child care may relate to their work-related stress. In an exploratory focus group study of licensed FCC providers in Texas, Gerstenblatt et al. (2014) found that providers reported feeling less work-related stress when they were able to create clear boundaries between work and home with separate spaces for child care.

Experiences with other family members in the FCC household is another working condition in FCC that can be both a challenge and a reward. In an exploratory interview study with licensed FCC providers in Los Angeles, Mimura et al. (2019) found that some FCC providers reported that family members supported the business by working as formal or informal assistants or by providing direct financial support. Other FCC providers reported that household members could feel resentful and present barriers to the operation of a home-based child care program (Mimura et al., 2019). Weaver (2002) found that FCC providers who rated their family members or spouses as highly supportive were more likely to report a strong commitment to FCC work. Similarly, 17 of the 22 women in Tuominen's ethnographic study (2003) described how being married or living with a partner enabled them to do FCC work because of the additional income and access to health care.

- Caring for children across age groups and abilities.** One of the common features of FCC settings is the wide range of age groups in care (Blasberg et al., 2019). The mix of infants and toddlers, preschoolers, and school-age children may pose opportunities and demands that lead to satisfaction or frustration with FCC work. For example, a qualitative study of licensed FCC providers in Delaware—who also were highly rated on QRIS and participated in the subsidy system—found that FCC providers described the benefits of working with mixed-age groups more than the challenges. Benefits included providers' satisfaction in seeing children learn from one another and the relationships that developed over time by caring for children across multiple years (Hooper et al., 2019).

Other descriptive studies found working with mixed-age groups was challenging for FCC providers. A qualitative study of licensed and/or subsidy-participating providers in Delaware found that working with multi-age groups was challenging to juggle alongside other caregiving and administrative roles (Hooper, 2020). Similarly, a descriptive study of licensed FCC providers in New York City found that 40% of surveyed providers reported that working with mixed-age groups was challenging primarily because of the need to individualize attention, materials, activities, and instruction to children of different ages (Reid et al., 2020).

Evidence about FCC providers' experiences with children with disabilities is mixed. A qualitative study with regulated providers in New York State suggested that many FCC providers are willing to offer individualized care for children with disabilities but often lack the financial and/or training resources to do so effectively (Shdaimah et al., 2018). In their qualitative study of FCC providers in Australia, Wong and Cumming (2010) found that providers feared a loss of income from caring for children with disabilities: they

were concerned that other families might leave their programs, and that caring for children with severe disabilities might increase their own feelings of isolation and vulnerability. A literature review on provider perceptions of inclusion practices in child care indicated that FCC providers who offered care to children with disabilities may lack adequate support around offering an inclusive environment which may lead to burnout (Weglarz-Ward & Santos, 2018).

On the other hand, a qualitative study of ECE providers' experiences caring for children who exhibited "challenging behaviors" in Maine found that fewer FCC providers reported removal of children from their programs compared to center-based teachers who were more likely to report expulsion by the center or removal by parents (Smith & Granja, 2018). This finding, however, did not explain whether caring for children with different abilities and behaviors created more stress for FCC because they continued to care for these children or if they experienced less stress because they were successful in supporting these children.

— **Working with families.** Qualitative research in our review found that FCC providers often develop close, supportive relationships with families of children in care (Bromer & Henly, 2009; Hooper, 2020). For some, the benefits of working closely with children and families may be what keeps them motivated to stay in FCC. Yet, providers' experiences with families regardless of these relationships may also be a source of stress, which may influence providers' decisions to remain in FCC. Experiences of FCC provider-family relationships may also vary across racial and cultural communities although none of the studies examined the role of racial and ethnic identity in understanding how working with families may have shaped FCC providers' feelings about leaving or staying in FCC. Only one study in our review examined working with families as a potential predictor of FCC providers' intent to stay or leave the FCC workforce. Todd and Deery-Schmidt included working with families as a component in a broader measure of stress that was predictive of provider exit from FCC work (1996), although these findings should be interpreted with caution because 95% of the study sample included white FCC providers.

Descriptive research with FCC providers also suggested that working with families was a source of tension for some providers. However, none of the studies in our review examined how racial or ethnic identity and the match or lack of match in background between FCC providers and families may have intersected with the stresses of provider-family relationships. In a focus group study of Black FCC providers' perceptions of school readiness in Maryland, Forry and Wessel (2012) found that parents' unrealistic expectations for their preschooler's academic achievements (e.g. pressure around learning to read and write) were a barrier to providers' efforts to prepare children for school. Relatedly, Shdaimah and colleagues (2018) found that their sample of mostly white FCC providers sometimes encountered resistance from families when encouraging them to obtain an evaluation of children with a suspected disability or developmental delay.

Another area where working with families can be challenging for providers is related to program income. Tuominen (2003) found that FCC providers across racial groups including Black, Latinx, and white women reported that working with families was their greatest challenge, particularly around payment and hours. In a study of child care providers participating in the subsidy system in four states, Rohacek and Adams (2017) found that providers (including both centers and regulated FCCs) struggled with obtaining payment in a timely manner from private-pay families. Providers also reported challenges around collecting co-payments from families in the subsidy system. Gerstenblatt et al. (2014) cited late payments as a reflection of some parents' disrespectful attitudes toward providers. This perceived lack of respect, combined with a broader lack of recognition of providers' professionalism, contributed to providers' self-reported stress. Corr et al.'s (2014) review of provider well-being also suggested that parents' lack of respect for FCC providers may have contributed to provider stress. Tradeoffs between positive working relationships with families and business sustainability are discussed more in the next section.

BUSINESS SUSTAINABILITY

FCC providers are small business owners as well as educators and caregivers, and businesses need to be financially sustainable in order to thrive (Vieira & Hill, 2019). Running a sustainable home-based child care business includes consideration of income and benefits, enrollment and parent demand, as well as balancing administrative and caregiving roles. Many providers go into FCC work for their love of children and may need to develop new business and administrative skills early on. Low earnings and lack of benefits as well as fluctuations in parent demand may contribute to provider exit from FCC. Moreover, women and especially women of color may face particular challenges running small businesses due to inequitable access to business loans (Mijid, 2017). Challenges with business sustainability may also exacerbate stressful working conditions.

Three of the correlational studies in this review highlighted the association between aspects of business sustainability and consideration of exit, actual exit, or job commitment. Kontos et al.'s landmark study of FCC and relative care settings (1995) found that business income was related to continued attachment to the field: FCC providers who charged higher rates for infants, toddlers, and preschoolers were more likely to remain in the work and those who charged lower rates were more likely to leave. In contrast, Weaver (2002) found that business income was not a significant predictor of commitment to FCC.

In addition to challenges related to income, Kontos et al. (1995) found that FCC providers who left FCC scored lower on business practice assessments than providers who stayed in the field. Todd and Deery-Schmidt (1996) found that experiences of high role burden, including the multiple roles that FCC providers may play in their work and family life and time management challenges, were a predictor of FCC exit, and Walker (2002) found that low role burden was a predictor of job commitment among FCC providers.

The remainder of this section explores research on business sustainability factors in more detail, as well as the contribution of enrollment to running a sustainable FCC business (see Appendix A, Table 3 for reviewed articles on business sustainability factors).

Income and benefits. FCC providers may depend on their home-based businesses to support their households as well as to provide benefits such as health insurance and pensions. Low income and lack of benefits may be significant factors in exit from FCC. Child care workers, in general, tend to earn low incomes (Bureau of Labor Statistics, 2020a), and FCC may not result in earnings that keep providers and their families above the poverty level. Approximately 13% of participants in a Massachusetts qualitative study of the ECE workforce cited low pay as a reason for thinking about leaving the field (Holas-Huggins & Kerwin, 2009). Providers in Tuominen's study cited low pay combined with lack of respect as a reason for consideration of exit from the work (2003).

The independent structure of FCC businesses may also make it difficult for providers to obtain benefits, particularly health insurance. Being unable to afford or otherwise access health insurance or other benefits might lead some providers to leave the field for jobs that provide these benefits, particularly for those who have (or whose family members have) chronic health conditions. In some cases, FCC providers may be able to gain access to benefits through a subsidy agency, network, or union (Houser et al., 2012; Bromer & Porter, 2019), but these options are uncommon.

Approximately 20% of listed providers in the NSECE reported that they had no health insurance coverage at all (NSECE Project Team, 2016). One third of FCC providers in an interview study in New Jersey reported no access to health insurance, and the majority of those who did received it from government assistance (61%) or from their spouse's employer (27%; Houser et al., 2012). Reid and colleagues (2020) observed similar patterns of insurance access through Medicaid (50%), Medicare (7%), and a spouse's insurance (25%), but only 4% of providers did not have any health insurance and 14% purchased coverage directly. One brief in our review highlighted the high cost of health insurance and general lack of benefits as possible reasons for decreasing numbers of FCC programs in California (Child Care Research Center, 2018). No studies in our review focused on other types of benefits (e.g. paid time off, retirement) that could support sustainable businesses.

BUSINESS SUSTAINABILITY

- **Income and benefits**
- **Enrollment and parent demand**
- **Managing business and administrative responsibilities**

— **Enrollment and parent demand.** Low enrollment means less revenue, whether the payment is from private tuition or the subsidy system. Because enrollment is closely related to income, lower-than-desired enrollments may also contribute to provider stress (Gerstenblatt et al., 2014). Parents' demand for child care can shape whether providers reach full enrollment at licensed capacity, and this can make an important difference in FCC providers' decisions to remain in or exit. Broader policy changes may also shape the child care decisions parents make which may have unintended consequences around FCC viability.

Availability of no-cost child care. Some research suggests that practical constraints such as cost and convenience may be the most important factors in parental child care decision-making, especially for low-income families and those who work volatile hours (Benlshai et al., 2014; Morrissey, 2017). Cost of care, in particular, may influence parents' choice or use of FCC, and, in turn, may contribute to the economic viability of FCC programs. Studies of care costs indicate that FCC is less expensive than center-based care (CCAoA, 2019). Assuming parents are sensitive to cost, these price differences may influence the choice or use of FCC versus public school/center-based or FFN care. A recent analysis of national child care participation data from 1990 to 2011 suggested that cost was a major factor in the use of care: during the study period, young children were more likely to be in no-cost settings such as school-based prekindergarten or parental or relative care compared to FCC or center-based care (Herbst, 2018).

Policy changes such as expansion of publicly-funded prekindergarten in center-based and school-based settings may affect FCC program enrollment and income. Few cities or states allow FCC providers to offer publicly-funded prekindergarten (National Institute for Early Education Research [NIEER], 2020). Parents may choose these no-cost options over FCC for their three- and four-year-old children despite the trade-offs they may entail around continuity of care or convenience (Bassok et al., 2016). Studies that examined the impact of universal pre-kindergarten expansion on the supply of child care found some evidence that informal child care providers (Bassok et al., 2016), private child care providers (Bassok et al., 2014), and infant/toddler providers (Brown, 2018), experienced being crowded out of the child care market, although the findings did not analyze impacts on FCC specifically. With lower enrollment of preschool-aged children, FCC providers must rely on income from enrollment of infants and school-age children. Yet, some analyses suggest that state licensing ratio requirements which limit the number of total children in FCC when infants are present may have a negative effect on enrollment and related revenue (Workman & Jessen-Howard, 2018). Without adequate revenue, FCC businesses may struggle with sustainability.

Parental preferences. Parental preferences for child care may be shaped by perceived benefits to children and perceived aspects of quality. These perceptions and preferences may influence parents' use of FCC, which can affect FCC enrollment. A correlational study of factors associated with parental child care choices of low-income families in Minnesota found that parents who valued child development outcomes were less likely to use FCC than center-based care (Carlin et al., 2019). NSECE 2012 data showed that fewer parents rated FCC as good or excellent on dimensions such as educational preparedness and opportunities for peer social interactions compared to their ratings of centers on these same dimensions (NSECE Project Team, 2014). On other dimensions, such as a nurturing environment, affordability, and flexibility, fewer parents rated FCC as good or excellent compared to their ratings of FFN care.

Family beliefs and ethnicity may also affect child care preferences. For example, a literature review on family child care decision-making cited one study showing that mothers who held traditional family role beliefs preferred home-based, relative child care options (Forry et al., 2013). No longitudinal studies in this review examined relations between shifting parental preferences and FCC utilization, although if parental preferences do change over time this could have implications for viability of FCC programs.

— **Managing business and administrative responsibilities.** Challenges around the business aspects of doing FCC work may contribute to a decreasing supply of FCC, particularly for providers who go into FCC work to care for children and families but who need additional support or training around business management. Lack of business management skills may make it difficult for some FCC providers to make a living from their child care business, which may, in turn, contribute to exit.

Business management training may be a low priority for many ECE providers because they do not think it will make a difference to their revenue (Stoney & Blank, 2011). FCC providers, in particular, may lack the skills such as recordkeeping, accounting, and marketing that enable them to operate businesses that generate sustainable incomes. Research in this review suggested that carrying out the administrative functions required to run a business in addition to caring for children is challenging for some FCC providers. Findings from the National Study of Family Child Care Networks indicated that nearly two-fifths of network directors identified lack of business skills as a challenge for FCC providers. Directors reported that many providers knew little about business management, and these barriers often resulted in providers feeling overwhelmed and, in some cases, exiting FCC early on (Porter & Bromer, 2020). For providers not fluent in English, barriers to business support may be exacerbated when business training or coaching is only available in English.

Management of business responsibilities may be particularly challenging for FCC providers who experience juggling multiple roles in their programs. Hooper (2020) identified roles that FCC providers in Delaware reported taking on, including teacher, social worker,

cook, janitor, and business administrator. Qualitative studies suggest the experience of taking on multiple roles may be a source of work-related stress for FCC (Gerstenblatt et al., 2014; Hooper, 2020). In addition, FCC providers may also make tradeoffs between an ethic of caregiving and sound business practices. As Nelson (1991) showed in her landmark semi-ethnographic study of white FCC providers in Vermont, providers experienced tensions between their roles as caregivers and entrepreneurs. Some took on a second mother, kin-like role with children and families enrolled in their programs, making it even more difficult to enforce business rules such as timely payments.

Other studies extend these findings about providers' willingness to make tradeoffs between their business income and supporting families. Tuominen (2003) found that FCC providers across racial and ethnic groups reported violating the terms of their own contracts with families in order to meet family needs. Bromer and Henly's qualitative study with FCC, FFN, and center-based child care providers in Chicago, most of whom were Black and Latina women, extended these findings (2009). They found that some FCC providers waived subsidy co-payments, offered free care, and provided parents with small loans because they saw their work as a calling to help families and the community rather than as for-profit businesses. Another qualitative study with both regulated FCC and center-based providers in New York who were mostly white providers found that FCC providers were more likely to report sacrificing their own income and professionalism to help families economically (Shdaimah et al., 2018). The authors explained that this may have been partially due to FCC providers having more flexibility over their policies and practices with families than center-based programs. While this approach might have positive implications for providers' working relationships with families, it might present a challenge to the sustainability of their child care business.

ECE SYSTEM FACTORS

FCC work takes place in the context of publicly-funded ECE systems, many of which provide payments that are an essential source of income. As stated earlier, policy changes at the federal, state, and local level can all have impacts on providers' experiences with ECE systems. These ECE systems include state licensing, state subsidy programs, QRIS, and, for some, Head Start, Early Head Start, or public preschool programs. FCC providers may also participate in the federal Child and Adult Care Food Program (CACFP). Each of these systems has its own requirements, standards, and monitoring protocols, which create challenges for FCC providers that may increase their levels of stress through administrative and training requirements, limit their enrollment and subsequent income through low payments, and influence their decisions to participate and remain in the field.

FCC providers participate in these ECE systems at different rates depending on state policies and individual motivations. By definition, FCC providers participate in child care regulatory systems (licensing, certification, registration), although regulations vary greatly across states. Typically, these systems regulate the number of children in care and adult-child ratios as well as features of the environment and provider characteristics such as age and education level (NCECQA, 2015b).

Subsidy programs are funded by the federal CCDBG and provide payments for child care in the form of reimbursements for eligible low-income families (Office of Child Care, 2016). FCC providers participate in state subsidy programs at varying levels. Some may exclusively enroll families who are eligible for subsidies while others decide to care for only one or two children who are subsidy-eligible and still others opt out of the subsidy system entirely.

Far fewer FCC providers participate in state or county QRIS, which may provide financial incentives tied to ratings associated with standards for professional development and quality program practices (NCECQA, 2017).

Many FCC providers also participate in the CACFP as a source of funding for healthy meals and snacks. Fewer FCC providers participate in Early Head Start-Child Care Partnerships (Del Grosso et al., 2019) or public preschool initiatives (Friedman-Krauss et al., 2019) which, similar to QRIS, may offer financial and professional incentives for participating providers.

ECE SYSTEM FACTORS

- **Cross-system inconsistencies**
- **Paperwork burden**
- **Quality standards that privilege center-like environments and Eurocentric values**
- **Lack of access to information and professional development to meet system requirements**
- **Low payment rates**

None of the correlational studies on FCC exit and commitment included in this review addressed ECE system challenges as contributing factors. This is likely because most of those studies were published in the 1990s and early 2000s before more stringent licensing and subsidy system requirements were implemented or QRIS were widespread. Over the past five years a growing body of literature has begun to examine inequities in ECE systems including the particular challenges that subsidy and quality systems pose for FCC providers. Studies in this review pointed to multiple barriers, including inconsistencies across systems, paperwork burden, standards that do not reflect the lived experiences or cultural values of FCC providers and/or that do not align with FCC settings, lack of access to information and training, and low payment rates (Bultinck et al., 2016; Hallam et al., 2017; Henly & Adams, 2018; NCECQA, 2020; Porter & Bromer, 2020; Sandstrom et al., 2018; Shdaimah et al., 2018).

While we did not find research that examined the relationship between system burden and exit from FCC work, we hypothesize that the challenges associated with multiple systems may contribute to work-related stress. System requirements may increase the cost of running an FCC business which may hinder business sustainability. These experiences may lead to subsequent FCC burnout and exit from the workforce. The following sections reviews this research (see Appendix A, Table 4 for reviewed articles on ECE systems factors).

- **Cross-system inconsistencies.** For FCC providers who participate in several ECE systems, adherence to multiple requirements as a result of cross-system inconsistencies may be so burdensome that providers choose to drop out of the system or leave FCC. A qualitative study of provider experiences with child care subsidy and quality systems in New York and Illinois found that FCC providers experienced a “double burden” trying to participate in both systems, each with separate standards and documentation requirements (Sandstrom et al., 2018, p. 70). Porter and Bromer (2020) found similar results in interviews with FCC network directors who reported that variations in requirements and standards created confusion for many FCC providers who participated in licensing, subsidy, and/or QRIS. In their brief on coordinating early care and education monitoring systems, Maxwell et al. (2016), pointed to an example: licensing requirements that may prohibit mobiles hanging above cribs, but QRIS standards that rate programs higher on learning environment scores if mobiles are present.

Differences in standards are sometimes compounded when system monitors provide conflicting information. In a study of FCC experiences with multiple regulatory systems in Rhode Island, providers reported a need for consistent information from licensing monitors as a significant issue, citing examples of one inspector recommending the use of gloves during diapering and another requiring this practice (Lehoullier, 2012). Other studies pointed to inconsistencies in communication from licensing and subsidy staff (Adams et al., 2008; Werner, 2016), particularly as a result of staff turnover (Shdaimah et al., 2018).

- **Paperwork burden.** Complicated, redundant paperwork, irrespective of the system, emerged in our review as another major factor that may contribute to providers’ stress and frustration with participating in ECE systems. Providers, especially those who operate small FCC programs without another adult, may come to view increasing paperwork requirements not only as disincentives for participation in subsidy systems and QRIS, but also as reasons for closing their FCC businesses. Porter and Bromer (2020) reported that more than a quarter of FCC network directors indicated that administrative requirements for licensing, subsidy and QRIS were a significant burden for FCC providers who had difficulty “weeding through the paperwork,” (p.22) which was often overwhelming, and sometimes contributed to providers’ decisions to leave the field. Paperwork may also be a systemic barrier for providers not fluent in English who cannot access documentation in their language (Porter & Bromer, 2020).

Other research in our review also pointed to paperwork burdens associated with ECE systems. Lehoullier (2012) reported that FCC providers were faced with cumbersome licensing paperwork, including applications and renewals which required submission of the same information multiple times. Rohacek and Adams (2017) found that difficult paperwork, especially related to resolving payment issues, was one of the principal reasons for FCC providers’ unwillingness to accept subsidized children, and Bultinck et al. (2019) found that paperwork created disincentives for participation in Minnesota’s QRIS.

Paperwork may be particularly burdensome for small FCC programs. Schneider et al. (2017) found that providers with lower administrative capacity, particularly those in smaller programs, were less likely to participate in the subsidy system. Researchers who examined FCC providers’ experiences with QRIS in Kentucky and Delaware found that required paperwork was particularly hard for FCC providers who worked alone because they felt completing it took time away from working with children (Hallam et al., 2017).

- **Quality standards that privilege center-like environments and Eurocentric values.** Some studies in this review suggested that quality standards that were part of QRIS or other state systems were ill-suited to FCC because the standards may not have aligned with what some FCC providers value most in their work with children (Tonyan, 2017). For example, some standards may incentivize FCC providers to look and act more like center-based care (e.g. through classroom-like environments and school readiness-oriented goals) in ways that some providers may resist. Such challenges may inhibit participation in QRIS or other quality improvement initiatives. A survey of FCC providers in Minnesota’s QRIS for example, found that providers did not feel QRIS accurately reflected quality (Bultinck et al., 2019).

This lack of fit, combined with complicated requirements and often limited incentives, may have also contributed to consideration of leaving FCC altogether, especially for FCC providers who live in states or counties where participation in QRIS is required for providers who care for subsidized children. A qualitative study that included FCC providers in New York State (Shdaimah et al., 2018) found that onerous QRIS requirements inhibited providers' abilities to provide what they saw as optimal care. Specifically, providers expressed concern that requirements may have discouraged the beneficial aspects of FCC such as flexible schedules and mixed-age groups. Similarly, FCC providers in Lehoullier's study (2012) reported that Rhode Island's ECE program standards for curriculum, for example, did not account for the mixed-age groups in FCC settings and that providers lacked the resources that centers had to make required improvements to their programs. Bradburn and Dunkenberger (2011) found that some Virginia QRIS standards for program management, and, to a lesser degree, environmental features and educational qualifications, did not fit FCC programs. Another qualitative study pointed to unrealistic expectations for FCC in QRIS (Hallam et al., 2017). FCC providers in Delaware and Kentucky reported that these expectations, and the requirements associated with them, were the principal reason for their lack of participation in QRIS.

Moreover, recent conceptual literature suggests that quality standards in ECE systems may not reflect the cultural values and experiences of all FCC providers. Definitions of quality, developmentally appropriate practice, and associated systems standards may privilege middle class, white, and/or Eurocentric expectations (Dahlberg et al., 2007; Souto-Manning & Rabadi-Raol, 2018). FCC providers who engage in these systems may experience cultural misalignment which may lead to frustration with or mistrust of systems or other aspects of the work and contribute to decisions about leaving or staying in FCC. Our review of research did not find any empirical studies that provided a critical analysis of how racial and ethnic identity might shape FCC provider perceptions of ECE system standards.

- **Lack of access to information and professional development needed to meet system requirements.** Research in our review indicated that FCC providers may face systemic barriers in accessing information and professional development needed to successfully participate in systems. The cost of professional development, transportation, and language barriers may prevent or discourage FCC providers from participating in programs and systems that could help sustain their FCC businesses, potentially contributing to FCC providers exit from the work. Moreover, lack of access to training, professional development, or coaching supports may disproportionately affect subgroups of providers, including low-income providers who are more likely to be Black or Latina women, Indigenous providers and others in more rural or geographically isolated communities, and linguistically marginalized providers including recent immigrants who may primarily speak languages other than English, as described below.

Cost. The cost of workshops or tuition for credentials and college courses presents obstacles for engagement and may ultimately discourage providers from continuing FCC work. In their secondary analysis of the 2012 NSECE data, Madill et al. (2016), for example, found that only 15% of FCC providers had outside funding to participate in professional development activities.

Several studies found that FCC providers identified the costs of required professional development, in general, as a factor in their lack of engagement in professional supports (California Child Care Research Partnership Team, 2016; Houser et al., 2012; Madill et al., 2016; Walker, 2002). In a study of FCC providers in New York City's subsidy system, Reid and colleagues (2020) found that only 52% of FCC providers were paid for the time they spent in professional development workshops provided by a city agency, network, or other source. FCC providers in Minnesota cited the cost of training as one of the three primary barriers, along with lack of transportation, time, and lack of interest in workshop topics, to participation in workshops and professional development activities (Paschall et al., 2018). Tuition costs for credential or college degree programs at institutions of higher education were also a major barrier to participation in ECE systems for FCC providers in Massachusetts (Holas-Higgins & Kerwin, 2009).

Transportation. Several studies in our review pointed to the transportation barriers FCC providers faced when accessing professional resources and supports. An implementation study of an Alabama statewide FCC mentoring program found that both the scheduling of state-required in-service licensing workshops and the distance to travel to them limited provider participation, particularly for FCC providers who lived in rural areas of the state (Abell et al., 2014). Similarly, a statewide study in Minnesota found that location and travel time to workshops was a significant barrier to participation in licensing, subsidy, and QRIS training, especially for FCC providers (Paschall et al., 2018).

Language. Access to information and professional development may also be limited for some FCC providers by the language of resources. English-only policies in some states discriminate against FCC providers from immigrant communities who may face additional hurdles obtaining needed information about child care operations (Bromer et al., 2020). Several descriptive studies in our review suggested that providers whose first language was not English faced challenges navigating increasingly complex ECE systems that may not have had materials, trainings, or paperwork in their languages (Adams et al., 2008; California Child Care Partnership Research Team, 2016; Holas-Higgins & Kerwin, 2009; Hurley & Shen, 2016; Porter & Bromer, 2020; Washington & Reed, 2008). Language may be an especially significant challenge when system-related materials such as application websites are not available in

languages other than English (Porter & Bromer, 2020). A study of FCC providers in the New York City subsidy system, for example, found that the number of Chinese FCC providers decreased after reporting requirements were increased (Hurley & Shen, 2016). In their evaluation of a professional development intervention in Los Angeles, Lo et al. (2017) found that language was a primary obstacle in meeting standards for credentials or college courses for FCC providers who spoke Mandarin and Cantonese.

— **Low subsidy payment rates.** National analyses of CCDF subsidy participation data indicate that the number of FCC providers caring for children in the subsidy system fell by half from 2005 to 2017 (Mohan, 2017; NCECQA, 2020), indicating a particular need to understand the decrease in FCC supply among this subset of providers. Low payment rates, which are often in the form of reimbursement rather than up-front payment, may be one of the most salient challenges with the subsidy system, especially for providers who depend primarily on subsidy income for their business, family, and personal financial well-being. Low payment rates are a likely factor in FCC exit although this review did not find research that specifically looked at the correlation between subsidy participation and decreases in FCC.

Subsidy rates are set by the states, which use market rate surveys to determine child care prices. A 2019 analysis of child care assistance policies in the 50 states and the District of Columbia found that only four states had base payment rates for FCC providers at the federally recommended level (75th percentile of the current market rate), and 47 states set their rates below this level (Schulman, 2019). Rates are based on a number of factors, including provider type, age of children, and hours of care. State and territory child care subsidy rates for FCC from 2018 varied widely for infants, toddlers, preschoolers, and school-age children in before- and after-school care (Tran et al., 2019). Monthly base rates for infant care, for example, ranged from \$200 to \$1,251, and for preschoolers, from \$180 to \$1,075. Fifteen states had a monthly base child care subsidy rate for toddlers below \$500; seven had a monthly base rate of \$800 or higher. Close to two thirds of the states and territories also offered higher rates for providers who met specific criteria such as participation in QRIS or care during non-traditional hours.

Two state-specific studies found that child care subsidy rates did not cover the basic cost of providing child care, suggesting that providers whose programs operated at a deficit may be disinclined to continue providing subsidized care (Washington & Reed, 2008; Werner, 2016). FCC providers who rely on the subsidy system as their sole source of income and do not enroll private-pay families may be more at risk for dropping out of the subsidy system and, if required, QRIS, or closing their programs entirely.

A report on the FCC decline in Minnesota that included a review of administrative data, published research, and interviews (Werner, 2016), cited research indicating that facility-related costs (e.g., rent or mortgage, utilities) accounted for 30% of FCC expenses and that administrative costs (e.g., licensing, training, supplies, curriculum, accountant fees) accounted for another 22% of expenses. Subsidy rates and parent co-payments did not fully cover these costs and may have been one of the factors in the decrease in the number of FCC providers statewide between 2006 and 2015 (Werner, 2016). A mixed-method study of the Massachusetts' subsidy voucher system found somewhat similar results. FCC providers reported that subsidy voucher payments did not cover additional staff time for administrative tasks and that providers had difficulty obtaining parent co-payments (Washington & Reed, 2008).

A multi-state study of FCC providers' experience in the subsidy system found that low subsidy payments directly impacted providers' own basic needs (Adams et al., 2008; Rohacek & Adams, 2017). Between a quarter and a half of FCC providers had trouble paying their bills. Low subsidy payments also affected the quality of their programs, because they could not hire qualified staff, purchase resources, or gain access to professional development resources (Adams et al., 2008; Rohacek & Adams, 2017). Not having sufficient funds to meet administrative or personal costs presents a clear challenge for FCC business sustainability.

AVAILABLE RESOURCES AND SUPPORTS THAT MAY BUFFER CHALLENGES FACED BY FCC PROVIDERS

Research in this review suggested that the availability of professional supports may buffer FCC providers from the stresses of working conditions, maintaining business sustainability, and ECE systems participation, particularly when access to formal or required professional development is limited as discussed above. Professional supports can include: 1) FCC networks that offer a menu of support services and other organizations such as child care resource and referral agencies that deliver training and coaching, and 2) peer supports including informal peer relationships and formal opportunities facilitated by networks, organizations, and associations.

In her study of commitment and quality in FCC, Weaver (2002) found that access to a variety of supportive resources for child care (including both professional resources such as organizations and peer relationships, and personal resources such as family and community) was the strongest predictor of professional commitment to FCC work. However, this study did not tease out the contribution of these categories of support. In this section, we report on findings from the literature that examined the ways professional organizations and peer supports for FCC providers may enhance commitment to FCC work, as well as the barriers providers may face in accessing these resources that could contribute to their leaving the work (see Appendix A, Table 5 for reviewed articles on resources and supports).

AVAILABLE RESOURCES AND SUPPORTS

- Family child care networks
- Child care resource and referral agencies
- Other professional support organizations
- Peer support initiatives and programs
- Informal peer support groups

— **Family child care networks and other professional support organizations.** Research points to the availability of FCC networks as important sources for support and engagement among providers that may be a promising strategy for reducing exit from FCC work (Bromer et al., 2009; Bromer & Porter, 2019; Porter & Bromer, 2020). FCC networks offer a menu of services including visits to provider homes, training and technical assistance around ECE system requirements, and/or peer support delivered by specialized staff for a targeted group of FCC providers (Bromer et al., 2009; Bromer & Porter, 2019; Porter & Bromer, 2020). Bromer et al. (2009) found that more than half of providers affiliated with FCC networks in Chicago, mostly Black and Latina women, reported that network affiliation helped their business and two thirds reported that it helped them maintain full enrollment. Porter and Reiman's (2015) quasi-experimental evaluation of an FCC network that supported a majority (75%) of Black and Latinx providers, found that social support was positively associated with FCC providers' self-efficacy, suggesting that opportunities to interact with other providers may contribute to providers' sense of confidence in their work.

In their study of network directors as well as directors of child care resource and referral agencies, Head Start programs, and other support organizations, Porter and Bromer (2020) found that business supports and professional development may have helped providers stay in FCC. Directors described how networks and other organizations helped to mitigate some of the logistical challenges faced by FCC providers. For example, trainings offered during evenings and weekends enabled providers who worked alone to participate without closing their businesses. In addition, financial supports helped providers offset the costs of training or professional development required by licensing, subsidy, or QRIS systems. This work echoed similar findings from a qualitative study of mostly Black and Latinx FCC provider participation in QRIS-related quality improvement activities (Tonyan et al., 2017). FCC providers were more engaged in professional supports from local agencies and organizations when the content and delivery of professional development aligned with their needs (e.g. offered at reasonable times, focused on tools and practices relevant to mixed-age groups) and their career and life phases. All of these supports could help reduce challenges providers face in their working conditions, business sustainability, and ECE systems navigation.

— **Formal and informal provider-to-provider peer supports.** Opportunities for peer supports among FCC providers may be informal, where providers reach out to other providers, or more formal activities that include group meetings or mentoring. One study in our review explicitly linked informal peer support to consideration of exit. Swartz and colleagues (2016) found that FCC providers who did not have another provider to go to for help and support were more likely to consider leaving the work.

Most of the other studies we reviewed focused on formal peer supports including peer support groups, cohorts, learning communities, communities of practice, and peer-to-peer mentoring offered by FCC networks, FCC associations, or other support

organizations (Porter & Bromer, 2020). FCC associations are provider-run groups that range from formal to informal but are often focused on advocacy, professionalism, and camaraderie for member providers (Bromer et al., 2009). We did not find correlational research linking FCC participation in formal peer supports with retention in FCC work, although our review included descriptive research that examined the ways formal peer supports may be related to providers' views of themselves as professionals, which may, in turn, be related to commitment to FCC work (e.g. Lanigan, 2011; Lo et al., 2017). Porter and Bromer (2020) found that formal peer support strategies offered by FCC networks and other support organizations had the potential to reduce isolation, relieve work-related stress, and improve provider knowledge and efficacy.

Several other studies in this review explored initiatives for FCC that included peer support approaches but did not explicitly study peer support as a distinct strategy. In focus groups with licensed providers in Oregon, 95% of whom were white, Lanigan (2011) found that cohort models were a preferred professional development strategy, because they enabled providers to engage with trusted peers, which, in turn, helped them feel more professional and respected. Lo et al. (2017) reached similar conclusions in their study of learning communities in a professional development initiative that aimed to prepare Cantonese- and Mandarin-speaking FCC providers for a college degree. In surveys and focus groups, providers reported that participation shifted their perceptions of themselves from caregivers to educators and increased their sense of self-efficacy. In a quasi-experimental study of a cohort-based intervention to help FCC providers (mostly Black and Latina women) understand children's behavior, Gray (2015) found significant positive improvements of provider self-reported sense of competence in their relationships within children in their care. Overall, these studies suggest that aspects of professional development interventions that connect FCC providers to each other and encourage peer-to-peer sharing may be promising strategies for increasing commitment to FCC work.

INDIVIDUAL PROVIDER CHARACTERISTICS THAT MAY INTERACT WITH CORE FACTORS

Individual characteristics may also influence FCC provider decisions to close their programs. These characteristics include age, race and ethnicity, physical health and psychological well-being, education, income, and motivations. Individual characteristics may directly influence decreasing numbers such as providers who leave the FCC workforce because they reach retirement age or because of health-related factors. Other individual characteristics such as race, motivations, and income may intersect and work more indirectly by contributing to providers' experiences of working conditions, running a business, and navigating ECE systems as well as their access to available resources and supports.

The indirect pathways by which individual characteristics contribute to decreases in the FCC workforce described in this section are largely speculative, given the lack of empirical studies that examine these interactions. For example, providers who view FCC as a career and are motivated by their desire to care and educate children may be more likely to tolerate challenging ECE system requirements and difficult working conditions and so may stay in FCC compared to providers who view FCC work as a temporary opportunity to work from home and care for their own children. Living in poverty or experiencing systemic racism may create additional challenges around running a sustainable child care business or paying for costs associated with maintaining a license and accessing additional training or supports. For FCC providers of color (including Black, Latinx, Indigenous, Asian American, and immigrants of color), experiences of discrimination, bias, and systemic racism are intertwined with other individual characteristics including health, education, income, and motivations. Few studies in our review examined these intersectional relationships.

In the following sections, we focus primarily on evidence from correlational studies that examined relationships between individual characteristics and exit from or commitment to the field. In some cases, we look to theoretical literature to illuminate how factors such as race may shape the experiences of the FCC workforce (see Appendix A, Table 6 for articles on individual factors).

INDIVIDUAL PROVIDER CHARACTERISTICS

- Age
- Race and ethnicity
- Physical health and psychological well-being
- Education
- Income
- Motivations

- Age.** Aging may be a factor in the decreasing numbers of regulated FCC. National data indicate evidence of an aging workforce. NSECE data from 2012 indicate that 24% of listed providers (mostly regulated FCC) were age 50 and older, and that 14% were age 60 and older (NSECE Project Team, 2016). State-level data indicate similar trends. A 2006 California statewide survey found that nearly a quarter of the FCC workforce were reaching retirement age (Whitebook et al., 2006). An advocacy brief based on survey data from 20% of registered FCC providers in New Jersey indicated that a reason for the decrease in the state was partially due to the majority of providers having reached retirement age (New Jersey Association of Child Care Resource and Referral Agencies, 2011).

Results of correlational studies linking age and commitment or exit were mixed. Walker et al (2002) found correlational evidence that older providers were less likely to intend to remain in the field indefinitely. Swartz et al (2016) found no association between age and consideration of exit.

Other age-related factors may affect providers' decisions to remain in the field. Recent employment trends suggest that younger individuals, those born in the 1990s, tend to switch jobs with regularity, unlike older generations who stayed in the same job for many years (Gallup, 2016). These trends, coupled with increasing options outside the child care field that offer higher pay with lower stress, may be a factor in the decreasing supply of FCC. Other factors such as increased reliance on technology across ECE systems may disadvantage older providers who may not be as savvy navigating online platforms as their younger peers (Porter & Bromer, 2020).

- Race and ethnicity.** Very few studies in our review observed racial/ethnic differences in FCC provider exit and retention and even fewer offered a critical analysis of how racialized experiences among FCC providers may shape workforce outcomes. Providers' experiences of racism and systemic inequities may contribute to FCC workforce dynamics as noted throughout this review. Kontos et al. (1995) was one of the few studies to observe racial and ethnic disparities in provider exit. Although the study was conducted in 1995, a different economic and social context than 2020, the findings indicated that white providers were more than twice as likely as Black providers and more than eight times as likely as Latinx or other providers to still be providing FCC at a one-year follow-up, although Latinx providers were most likely to be unreachable. More recent studies found different results. Swartz et al. (2016) found that Latinx providers were less likely than white providers to have considered leaving FCC in the last two years. Lee et al. (2019) found no relationship between race and work engagement when controlling for job characteristics.

Almost no studies in this review intentionally explored the possible role of systemic racism and inequities in FCC provider experiences that may drive this variation. One exception is Tuominen's ethnographic study of FCC providers (2003). This study centered the way race, gender, and income shaped the experiences of women across racial groups. Likewise, we do not expect that a providers' race or ethnicity itself is a risk factor for exit from the field. Instead, it is likely that these disparities, where present, are reflective of the racialized experiences of providers of color in offering FCC.

- Physical health and psychological well-being.** Providers' health and well-being may shape their intentions and ability to stay in the field, perhaps by intersecting with work-related factors like stressful working conditions, limited access to benefits such as health insurance, and/or individual factors such as age. Few studies have examined the psychological well-being and physical health of FCC providers and how personal health may interact with providers' experiences caring for children and families. Psychological well-being may affect a provider's satisfaction with providing child care and physical health may directly impact a provider's ability to meet children's daily needs.

A recent literature review on ECE provider well-being found similar levels of depression (1 in 10) among ECE providers including FCC as the general population, yet authors acknowledged the limited research on how systemic factors such as poverty and racism differentially impact the well-being of the workforce (Corr et al., 2014). Our review only identified one study that examined the relationship between psychological well-being and intention to stay in FCC work. In a mostly white sample of FCC providers, Weaver (2002) found high levels of psychological well-being and low levels of incidence of depressive symptoms. Both higher psychological well-being and lower reports of depressive symptoms were significantly related to greater levels of intent to stay and professional commitment when controlling for other predictors.

A small body of research on FCC providers' physical health suggests relatively low levels of physical well-being. Lessard et al. (2020) reviewed research with samples of providers across racial and ethnic groups showing that 40-50% of FCC providers met physical activity guidelines, but nearly a third reported more than nine hours of sedentary time each day. Some studies indicated higher proportions of providers (90%) were overweight or obese, compared to the national average of 71%. Three studies examined FCC providers' sleep and found that only about half of FCC providers were meeting sleep recommendations of at least seven hours of sleep per night. The review also found that FCC providers had higher incidence of chronic diseases—such as diabetes and high blood pressure—compared to the national average. While Lessard et al. (2020) acknowledge that the ECE workforce may be more at risk for negative health outcomes due to income inequities and systemic racism, their review did not examine disparities in health outcomes by race or income. Many Black providers and other providers of color may be most affected by social determinants of health and systemic racism in the U.S. health care system (Taylor, 2019) which may impact their capacity to sustain FCC work.

- Education, training, and professional development².** FCC providers' attainment of education and professional development may contribute to their intentions to leave or stay in the FCC workforce. National data find that a third of listed providers (FCC) have an Associates degree or higher, a third have some college but no degree, and a third have a high school degree or GED or less (NSECE, 2013). Economic inequality and the low incomes of many FCC providers (reviewed earlier) may prevent ability to enroll in higher education and/or completion of a degree program once enrolled. Moreover, ECE providers of color experience lower rates of college completion compared to their white peers, likely due to systemic barriers rather than individual motivations (Whitebook et al., 2019). Beyond disparities in higher education access, ECE systems increasingly require higher education degrees but often do not offer needed financial and emotional supports to providers to attain those degrees (Whitebook et al., 2019). Studies in this review did not examine variation by race in how education and professional development are related to intent to leave or stay for FCC providers.

Studies in this review found equivocal evidence of a correlational relationship between educational attainment and actual exit from the field among FCC providers. Kontos et al. (1995) found no association between educational attainment and providers who left the field compared to those who stayed. In contrast, Todd and Deery-Schmidt found that providers with higher education levels were more likely to exit the field than those with lower education levels (1996). Similarly, Swartz et al. (2016) found that providers with higher education levels were more likely to consider leaving FCC work, perhaps related to the possibility of higher paying jobs outside the home. However, we did not find research that specifically examined how the possibility of other employment opportunities may shape provider behavior.

Findings about the relationship between training and FCC exit were also mixed. Kontos et al. (1995) examined training participation but found no association with exit from the field. Todd and Deery-Schmidt (1996) found that both education level and training moderated the relationship between job-related stress and exit from FCC work. Providers with less formal education but more ECE training experienced lower levels of job stress and were less likely to exit the field than those with more education and less training. If there is indeed a link between training and intention to stay in the field, this could have outsized implications on longevity in the field for providers who speak languages other than English, live in rural areas, or who offer care during non-traditional hours based on disparities in access to training and professional development.

We also found equivocal results in studies that examined the relationship between training and commitment to FCC. Weaver (2002) found no association between training participation and commitment to the work, and Walker (2002) found an initial correlational link between professional development and intent to stay in the field, but this relationship did not hold in regression analyses. On the other hand, a landmark study of licensed FCC providers in Canada found that intention to stay in the field as well as motivations to become regulated were associated with support services, including training (Doherty et al., 2006).

- Household income.** Living in a low-income household may present a challenge to sustainable FCC work. For example, providers with lower household incomes may face challenges sustaining their child care businesses, meeting costly policy requirements, or accessing professional supports. These challenges disproportionately affect FCC providers of color who are more likely to live in low-income households (Whitebook et al., 2019). Only one study in our review examined the relationship between household income and intent to exit FCC work. Swartz et al. (2016) found that FCC providers who depended on their child care business as their only source of income were more likely to consider exiting FCC than providers who had multiple sources of household income.

Analyses of national census data found that one in seven child care workers (15%), who may have included FCC providers, lived in families with incomes below the official poverty line, and 37% lived in families with incomes twice below the poverty level, compared with 7% and 21% of workers in other occupations (Gould, 2015). At least one quarter of the 2012 NSECE listed providers (mostly regulated FCC) reported household incomes under \$25,000, which was slightly above the 2012 federal poverty level for a family of four (NSECE Project Team, 2016; Office of the Assistant Secretary for Planning and Education, 2012).

Two state studies also found that FCC providers had low incomes. In their survey of New Jersey HBCC union members, of whom 89% were FCC, Houser et al. (2012) found that 61% reported household incomes of less than \$25,000 annually. A Massachusetts report on a series of statewide convenings with members of the early childhood workforce, including center teachers and FCC providers, reported that a third had incomes that were low enough to qualify for food stamps, WIC, or free public-school lunch, and that 13% had to borrow money from friends and family to pay their bills (Holas-Huggins & Kerwin, 2009).

These gaps in income, combined with other aspects of systemic racism such as disparities in wealth, housing, and environment (Iruka, 2020), could contribute negatively to providers' own health and psychosocial well-being and, in turn, contribute to eventual exit from FCC. NSECE data also indicated that 75% of Black listed FCC providers had a household income below the national median compared to 59% across all listed FCC providers (Whitebook et al., 2019), reflecting similar findings about intersectional wage gaps and poverty rates across the ECE and child care workforces more broadly (Vogtman, 2017).

2 We conceptualize training and professional development as including credentials (e.g. the Child Development Associate) and other professional certificates (e.g. workshop participation certificates; accreditation) that providers may obtain beyond higher education coursework or a degree, as well as in-service activities like attending workshops or receiving coaching or personalized mentorship.

—○ **Provider motivations.** Provider initial motivations to do FCC work may shape their long-term engagement in the field. In their seminal study of family child care and relative child care, Kontos et al. (1995) identified “intentionality” as a key motivation that distinguished regulated FCC providers from relative caregivers. Their construct of intentionality referred to providers who viewed FCC as a career and chosen occupation, who sought information about children’s development, planned for children in care, and networked with other providers (Kontos et al., 1995). The study examined provider turnover and found that providers who stayed in FCC (at 12 months follow up) were more intentional in their motivations to offer FCC than providers who left FCC work. Those who left were more likely to report that they started FCC in order to stay home with their own young children.

Subsequent research on FCC turnover is equivocal on the role of motivations. Todd and Deery-Schmidt (1996) found that the highest exit rates of FCC providers were among those who had been caring for children between two and eight years, suggesting that these providers may have been more likely to be doing FCC in order to stay home with their own children. The authors hypothesized that these providers may have left FCC work after their own children aged out of FCC and were in elementary school. Swartz et al. (2016) found no associations between individual provider motivations to offer FCC and consideration of exit (Swartz et al., 2016). In research on FCC engagement, Walker (2002) found that FCC providers who viewed their FCC work as a career were more likely to report interest in most aspects of professional development, and those who intended to stay in the field indefinitely were more interested in getting a CDA and attending more health and safety trainings.

Only one study in our review examined the intersection between motivations and racial identity, which focused specifically on differences in the more relational reasons that providers may choose to enter and/or remain in FCC. Armenia’s (2009) analysis of administrative data on licensed FCC providers in Illinois found that white providers were more likely to report doing FCC in order to stay home with their own young children, while Black providers were more likely to report doing FCC to help the community and other mothers in their community networks. Black feminist theory posits that “othermothering” practices are a strength and form of activism that some Black women use to protect their communities from racist, sexist, and classist oppression (Collins, 2000). Some Black FCC providers may view their work as a calling and an intentional way to support their communities (Tuominen, 2003; Bromer, 2002) and, for these reasons, they may stay in the field despite challenges. Research has not examined how motivations intersect with professional identity and other individual characteristics, nor have studies examined how motivations across racial and cultural groups of providers may shape tenure in FCC work.

DISCUSSION

CONSTELLATIONS OF SYSTEMIC, WORK-RELATED, AND INDIVIDUAL-LEVEL FACTORS CONTRIBUTE TO THE DECREASE IN FCC

Our review of the literature examined an array of potential factors that may be related to the decrease in FCC. Given the heterogeneous nature of the FCC workforce, it seems unlikely that there is one primary explanation for these trends but rather an interconnected set of factors and conditions that may relate to the shifting supply of the FCC workforce.

Throughout this review, we acknowledge that broad socio-economic factors affect trends in FCC supply. Temporal economic trends, demographic shifts, and policy changes, as well as more persistent systemic racism and income inequality, shape and intersect with providers' experiences of FCC work. Within these broader pressures, our review examined core factors related to FCC provider work experiences that may be most closely related to commitment to FCC and consideration of exit. These included working conditions, business sustainability, and provider experiences participating in ECE systems. Second, we examined available and accessible supports and resources which may help providers overcome challenges and enhance professional commitment and engagement in FCC work. Third, we examined individual provider characteristics that may directly or indirectly shape attachment to the field and may also intersect with provider experiences of the primary core factors. Individually and collectively, the factors and challenges detailed in this review of research may contribute to FCC providers' decisions to leave the field: these perceived and experienced difficulties may outweigh the joys and benefits of daily care for children.

Our findings suggest that constellations of factors may contribute to changes in the supply of FCC. For example, FCC providers who experience difficult working conditions such as long hours in their daily care for children may find little time to manage the business aspects of running an FCC program that may, in turn, lead to lower enrollment and income. Providers' motivations for doing FCC may also interact with their decisions to engage in licensing, subsidy, and quality systems which could help sustain their businesses. Providers who lack professional credentials such as ECE education or training may experience challenges meeting ECE system standards. These combinations of factors, particularly when compounded by economic and social events, may influence providers' decisions to exit, despite the perceived benefits of working with children and families and, in some cases, their commitment to serving the community. Some FCC providers may seek out employment in other fields where there are opportunities for higher compensation and benefits, less stress, and fewer hassles related to direct interactions with systems.

Among the factors described in this review, work-related stress and business income may be the most salient for individual provider intent to exit or actual exit from the FCC workforce. Several correlational studies in our review found that stress was a predictor of intention to leave or actual program closure, and that lower stress was a predictor of commitment to the work. Similarly, income emerged as a factor that was correlated with intent to exit and actual exit from the work. Multiple factors including business-related challenges, difficulty navigating systems and low subsidy rates, as well as individual factors such as living in poverty were found to contribute to provider stress and insufficient income.

Yet, findings suggest that access to peer supports had the potential to reduce stress. Correlational studies and recent intervention research suggested that these supports are important factors in predicting self-efficacy (Gray, 2015; Porter & Reiman, 2015) and commitment to the work (Doherty et al., 2006; Swartz et al., 2016; Weaver, 2002). Access to professional development supports such as networks may also help providers sustain their FCC businesses.

The literature also described the many trade-offs between family and work that providers negotiated and the multiple roles they played. This balancing act, along with other working conditions like long hours and isolation, may contribute to operating a successful FCC program. This review did not find evidence that caring for children or working with families consistently predicted continued engagement or exit from FCC. Rather, close relationships with children and families were often aspects of FCC work that providers found most rewarding.

Recent descriptive research that detailed the demands and challenges of participating in ECE systems such as licensing, subsidy, and QRIS offers insights into how individual provider experiences intersect with policy and system factors to push people out or keep them in the FCC workforce. ECE systems that are not culturally or linguistically responsive may discourage engagement and participation. For example, ECE systems that require providers to speak English or those that incorporate standards requiring settings with center-like arrangements and materials also contribute to systemic inequities that may make it difficult for FCC providers whose first language is not English, low-income providers, and providers from other marginalized groups to participate. Lack of alignment across policy and system regulations and standards for FCC programs places burdens on providers which some studies suggested may drive providers out of FCC work. Inconsistencies in requirements across regulatory and quality systems, burdensome and time-consuming paperwork requirements, and lack of access to information and professional development, all created challenges for FCC sustainability. Low payment rates for subsidy participation may also contribute to the decreasing numbers of FCC providers and serve as a disincentive for new providers to join the FCC workforce.

Although few studies in this review examined differences in FCC provider experiences by race, ethnicity, or language, we posit that Black, Latinx, Indigenous, Asian American, and other marginalized providers may face disproportionate challenges related to difficult working conditions, business and income sustainability, and ECE systems participation as a result of broader systemic racism. The FCC sector includes a disproportionate number of women of color, yet many of the research studies we identified in this review, particularly those that explicitly examined associations between various factors and exit/retention, were limited to samples of mostly white providers. FCC providers of color may experience higher levels of depression, lower levels of physical health, lower household or FCC program income, and less access to higher education due to disparities in housing, intergenerational wealth, and intersectional wage gaps (Vogtman, 2017; Whitebook, 2019).

FUTURE RESEARCH DIRECTIONS

The disproportionate numbers of women of color, particularly Black and Latina women, in the FCC workforce and the lack of research on how experiences of systemic and everyday racism may shape their experiences suggests a need for future research. Our review reveals that few studies examine workforce dynamics through the lens of systemic racism or providers' racialized experiences working with families, children, and ECE systems. Study samples that are representative of the FCC workforce as well as samples that focus on specific groups of FCC providers, such as providers in Indigenous communities or providers who are refugees or recent immigrants of color, will offer a more comprehensive picture of provider experiences and factors that may shape their exit or commitment to the work.

While this review focused on the factors behind the decreasing numbers of regulated FCC, future research is needed to understand the strategies that could attract new providers to the field to maintain and rebuild the supply. Pre-COVID data suggest that the net decrease in FCC may be, in part, related to fewer providers coming into the field than those leaving it (Doromal et al., 2019). Shifts in trends around FCC entry and exit from the field may be shaped by the COVID crisis as more families are staying home with their young children or relying on home-based settings that may feel safer than center-based programs. There is a need to examine the reasons for providers' initial decisions to do this work, and, building on the findings, strategies that are effective in recruiting new providers. In addition, more research is needed on the factors that are linked to retention, specifically supports for engagement, such as family child care networks and peer supports.

National data indicate a decrease among small FCC homes and a slight increase in the numbers of large FCC homes (NCECQA, 2020). Research suggests working without an assistant is a predictor of job-related stress (Rusby et al., 2013), which other research in this review found was a predictor of exit or intent to exit. This finding about the association between working with an assistant and stress suggests that two or more providers in a home could potentially buffer some of the factors related to difficult working conditions such as isolation and multiple role burden, irrespective of program size. Future research on FCC should examine sustainability outcomes for both small and large FCC homes to understand these national trends and to inform supports that are aligned with the needs of the FCC workforce.

Given the evidence around the burdens of misaligned ECE systems, there is a need for research that compares variation in state policy contexts including licensing systems that were designed for FCC rather than adapted from center-based models, and voluntary versus required QRIS. In addition, future research is needed on how local policies such as zoning laws or local small business regulations might shape provider experiences offering FCC.

Research is needed to better understand changes in the demand for child care and parental choices and preferences. We found no studies that examined whether or how parent demand for FCC has shifted over time and may shape the supply of FCC. We also do not know enough about how these patterns may vary across racial, linguistic, and cultural communities.

Moreover, there is a need for new approaches to research and measurement development to better understand the experiences of FCC providers. Provider stress, for example, is examined in the literature, yet measures of work-related stress were developed prior to changes in policies and systems that may have shaped trends in the FCC supply. Existing measures may not capture the current experiences of providers who participate in systems and policies that are rooted in systemic racism, and/or their work with families who also participate in publicly-funded systems. Navigating inequitable policy landscapes may be a source of stress that has not been measured or examined in studies that predict both quality and attachment to the FCC workforce.

Research on providers' experiences over time is scant. We only identified two longitudinal studies, both from the 1990s (Kontos et al., 1995; Todd & Deery-Schmidt, 1996), that examined providers' exit from FCC work over a one- to two-year time period. More research is needed that looks at the relationships between motivation and professionalism over time. Some providers may initially choose to offer FCC in order to stay home with their own young children but may come to see the work as a profession. Others may leave FCC after their own children grow up, but remain in the ECE workforce, choosing to work in center-based settings that may have easier working conditions and more reliable compensation and benefits. Others may leave the ECE workforce altogether and find opportunities for work that offer higher compensation and benefits. Still other providers who enter FCC because they see this work as a calling may choose to leave, because hard working conditions combined with unrealized income may come to outweigh their commitment to the profession.

Finally, national data indicate that FFN caregivers constitute the vast majority of HBCC providers, but we did not examine factors that relate to entrance, retention, or exit for FFN caregivers. Future research is needed to better understand the ways these caregivers engage in the workforce.

FUTURE POLICY IMPLICATIONS

Findings from this literature review have implications for policy and program directions. Multiple factors may contribute to work-related stress, including the working conditions of FCC settings, business sustainability, and ECE systems participation. Supports and strategies are needed at local and state levels to counter some of these stressors.

Peer support initiatives such as peer-to-peer mentoring may help reduce some of the isolation that some small FCC operators may experience when working mostly alone. Investment in peer support initiatives may also leverage the expertise and knowledge of FCC provider leaders and mentors in local communities.

Shared services alliances may be a strategy that helps FCC providers maintain sustainable businesses by reducing administrative and business burdens. Funding for substitute caregivers or a substitute pool can enable providers to access trainings, professional resources and allow them to take vacation days for self-care. Although our review did not find research on unionization of FCC, it's possible that union membership for FCC providers could help them access paid training opportunities, time off, health insurance, and other benefits.

Income emerged as a clear issue that is shaped by providers' need for support around business skills as well as government subsidy systems that do not pay providers a living wage. Monetary investment is needed to grow this sector of the ECE workforce. Such investments might include setting subsidy rates that pay providers up front and that are aligned with a living wage as well as with the full cost of quality care. Monetary incentives within state systems may also help buffer some of the negative economic impact of universal preschool initiatives on FCC providers who rely on enrollment of mixed-age groups of children. State subsidy systems, for example, could consider modifications to incentives and increased rates for FCC providers who offer infant and toddler care. Some states already provide higher subsidy payments to providers who care for children with special needs and those who offer non-traditional hour care (Early Childhood Training and Technical Assistance Center, n.d.; Matthews et al., 2015), and this could be a strategy to replicate across states. Universal child care and preschool initiatives might also consider strategies to expand opportunities for FCC providers to serve as preschool sites while maintaining mixed-age groups which might be tied to higher potential for income.

Finally, misaligned and inconsistent ECE policies and standards suggest that simplification, alignment, and coordination of licensing, subsidy, and QRIS applications and required documentation may help to streamline duplicative and burdensome paperwork tasks for FCC. Systemic inequities in ECE systems such as Eurocentric standards and standards that require providers to create center-like environments, also suggest a revisioning of ECE systems that are responsive to and reflective of the lived experiences of FCC providers across racial, linguistic, and cultural communities. Such changes at a broad systems level may make FCC a more appealing work setting for those considering a career in ECE.

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APPENDIX

**TABLE A1.
ARTICLES EXAMINING CORRELATIONS BETWEEN
FCC FACTORS AND PROVIDER ENGAGEMENT OR EXIT**

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³	Outcome Studied
Corr et al. (2014)	Y	Literature Review	N/A	N/A	N/A	N/A	N/A
Kontos et al. (1995)	N	Correlational	QUANT	North Carolina, Texas, California	112 regulated FCC, 60 nonregulated HBCC, 54 relative	17% Black, 5% Latinx, 71% white, 7% other	Exit
Lee et al. (2019)	Y	Correlational	QUANT	One southwestern state	132 regulated FCC, 261 center-based providers	55% white	Intent to stay
Swartz et al. (2016)	Y	Correlational	QUANT	Illinois	1392 regulated FCC providers	33% Black, 8% Latinx, 57% white, 3% other	Consideration of exit
Todd & Deery-Schmitt (1996)	Y	Correlational	QUANT	Midwest, six county area	57 FCC providers (regulated and exempt)	95% white	Consideration of exit; Exit
Walker (2002)	Y	Correlational	QUANT	Maryland	133 regulated FCC providers	Not reported	Intent to stay
Weaver (2002)	Y	Correlational	QUANT	Dane County, Wisconsin	65 regulated FCC providers	97% white	Intent to stay

Notes: ¹Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. ²Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. ³Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown.

**TABLE A2.
ARTICLES RELATED TO WORKING CONDITIONS**

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Bromer & Henly (2009)	Y	Descriptive	QUAL	Chicago, Illinois	29 regulated (FFN, FCC, CBC)	69% Black, 17% Latinx, 10% white
Forry & Wessel (2012)	N	Descriptive	QUAL	Maryland	30 regulated FCC providers, 33 center directors, and 22 kindergarten teachers	100% Black
Gerstenblatt et al. (2014)	Y	Descriptive	QUAL	Central Texas	11 regulated FCC providers	Not reported
Hooper et al (2019)	Y	Descriptive	QUAL	Delaware	28 regulated FCC providers	72% Black, 4% Indigenous, 24% white,
Hooper (2020)	Y	Descriptive	QUAL	Delaware	29 regulated FCC providers	41% Black, 6% Latinx, 52% white
Mimura et al. (2019)	Y	Descriptive	MIXED	Los Angeles, California	7 regulated FCC providers	29% Latinx, 29% white, 43% other
Porter & Bromer (2020)	N	Descriptive	MIXED	United States (national sample)	47 directors at staffed FCC networks	Not applicable
Reid et al (2020)	N	Descriptive	QUANT	New York, New York	32 regulated FCC providers, 32 centers	4% Asian, 33% Black, 63% Latinx, 0% white
Rohacek & Adams (2017)	N	Descriptive	MIXED	15 counties across 4 states (Alabama, California, New Jersey, Washington)	Surveys: 407 centers and 534 regulated FCC providers Interviews: 55 stakeholders Focus Groups: 300 (caseworkers, center directors, and FCC providers)	Not reported
Rusby et al. (2013)	Y	Descriptive	QUANT	Oregon	155 regulated FCC providers	4% Asian, 8% Black, 12% Latinx, 64% white, 7% multiethnic, 5% other
Shdaimah et al. (2018)	Y	Descriptive	QUAL	New York	55 regulated FCC and center-based providers	Majority white
Smith & Granja (2018)	N	Descriptive	QUANT	Maine	471 early childhood educators (31% HBCC)	Not reported
Tuominen (2003)	Y	Descriptive	QUAL	Washington	16 licensed FCC and 4 unlicensed providers	40% Black, 35% white, 20% Latinx, 5% Asian
Weglarz-Ward & Santos (2018)	Y	Literature Review	N/A	N/A	N/A	N/A
Wong & Cumming (2010)	Y	Descriptive	QUAL	Sydney, Australia	39 staff, 54 regulated FCC providers	48% of the carers were "culturally and linguistically diverse"

Notes: ¹Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. ²Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. ³Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown.

**TABLE A3.
ARTICLES RELATED TO BUSINESS SUSTAINABILITY**

Article	Peer Reviewed?	Type of Study	Primary Data Type1	Setting	Sample description2	Race/Ethnicity of FCC providers (unless otherwise specified)3
Bassok et al. (2014)	Y	Experimental	QUANT	Oklahoma, Georgia	1019 centers and regulated FCC homes	Not reported
Bassok et al. (2016)	Y	Quasi-experimental	QUANT	Florida	603 centers and regulated FCC homes	Not reported
Bromer & Henly (2009)	Y	Descriptive	QUAL	Chicago, Illinois	29 regulated (FFN, FCC, CBC)	69% Black, 17% Latinx, 10% white
Bromer & Porter (2019)	N	Descriptive	MIXED	United States (national sample)	156 staffed FCC networks in 39 states; 17 network director interviews	Not applicable
Brown (2018)	N	Quasi-experimental	QUANT	New York City	Analysis of administrative data on child care capacity	Not reported
Carlin et al. (2019)	Y	Correlational	QUANT	Minnesota	317 families	13% Latinx; 58% non-white, non-Latinx; 29% white, non-Latinx
Child Care Research Center (2018)	N	Policy Brief	QUANT	California	Not reported	Not reported
Forry et al. (2013)	N	Literature Review	N/A	N/A	N/A	N/A
Gerstenblatt et al. (2014)	Y	Descriptive	QUAL	Central Texas	11 regulated FCC providers	Not reported
Herbst (2018)	Y	Descriptive	QUANT	United States (national samples)	Secondary analysis (SIPP - Families)	Not reported
Hooper (2020)	Y	Descriptive	QUAL	Delaware	29 regulated FCC providers	41% Black, 6% Latinx, 52% white
Houser et al. (2012)	N	Descriptive	QUANT	New Jersey	132 regulated FCC providers, 16 other HBCC providers	8% Asian or Indigenous, 51% Black, 26% Latinx, 15% white
Holas-Huggins & Kerwin (2009)	N	Descriptive	QUAL	7 communities in Massachusetts	603 ECE workers (various settings) and parents	Not reported
NSECE Project Team (2014)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (NSECE 2012)	N/A
NSECE Project Team (2016)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (NSECE 2012)	N/A
Nelson (1991)	N	Descriptive	MIXED	Vermont	Surveyed 225 registered providers; interviews with 31 registered providers	100% white

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TABLE A3. CONTINUED
ARTICLES RELATED TO BUSINESS SUSTAINABILITY

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Porter & Bromer (2020)	N	Descriptive	MIXED	United States (national sample)	47 directors at staffed FCC networks	Not applicable
Reid et al. (2020)	N	Descriptive	QUANT	New York, New York	32 regulated FCC providers, 32 centers	4% Asian, 33% Black, 63% Latinx, 0% white
Shdaimah et al. (2018)	Y	Descriptive	QUAL	New York	55 regulated FCC and center-based providers	Majority white
Stoney & Blank (2011)	N	Descriptive	QUAL	United States	15 key informants	Not reported
Tuominen (2003)	Y	Descriptive	QUAL	Washington	16 licensed FCC and 4 unlicensed providers	40% Black, 35% white, 20% Latinx, 5% Asian
Workman & Jessen-Howard (2018)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (NSECE data, Provider Cost of Quality Calculator)	N/A

Notes: 1Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. 2Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. 3Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown.

**TABLE A4.
ARTICLES RELATED TO ECE SYSTEM FACTORS**

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Abell et al. (2014)	Y	Descriptive	MIXED	Alabama	Study 1) 365 regulated FCC providers Study 2) 109 regulated FCC providers	1) 46% white 2) 47% white
Adams et al. (2008)	N	Descriptive	MIXED	Alabama, California, New Jersey, Washington	Quantitative sample: 407 centers and 534 regulated FCC providers Qualitative sample: 55 stakeholders, 300 participants from survey sample	Not reported
Bradburn & Dunkenberger (2011)	N	Descriptive	MIXED	Virginia	75 regulated FCC providers	Not reported
Bromer et al. (2020)	N	Descriptive	MIXED	Two states in the U.S.	105 regulated FCC providers, 12 staff, and 16 parents	38% Asian, 3% Black, 50% Latinx, and 11% white
Bultinck et al. (2019)	N	Descriptive	QUANT	Minnesota	1646 regulated FCC providers; 507 center, school-based, and unknown settings	<1% Asian, 2% Black, 89% white, <1% other
California Child Care Research Partnership Team (2016)	N	Policy Brief	QUANT	California	All regulated FCC providers statewide	Not reported
Hallam et al. (2017)	Y	Descriptive	MIXED, 1) QUANT, 2) QUAL	Kentucky, Delaware	1) 1350 regulated FCC providers 2) 31 regulated FCC providers	1) Not reported 2) 5% Asian; 19% Black; 5% Latinx; 71% white
Holas-Huggins & Kerwin (2009)	N	Descriptive	QUAL	7 communities in Massachusetts	603 ECE workers (various settings) and parents	Not reported
Houser et al. (2012)	N	Descriptive	QUANT	New Jersey	132 regulated FCC providers, 16 other HBCC providers	8% Asian or Indigenous, 51% Black, 26% Latinx, 15% white
Hurley & Shen (2016)	N	Policy Brief	MIXED	New York, New York	All regulated FCC providers in NYC	Not reported

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TABLE A4. CONTINUED
ARTICLES RELATED TO ECE SYSTEM FACTORS

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Lehoullier (2012)	N	Descriptive	QUAL	Rhode Island	108 stakeholders (including 23 regulated FCC providers)	Not reported
Lo et al. (2017)	Y	Descriptive	MIXED	Los Angeles County, California	70 regulated FCC providers	100% Chinese
Madill et al. (2016)	N	Descriptive	QUANT	United States (nationally representative sample)	1402 center-based providers, 3265 HBCC providers	Not reported
Maxwell et al. (2016)	N	Policy Brief	Qualitative	United States	Document review of state monitoring requirements	N/A
Paschall et al. (2018)	N	Descriptive	QUANT	Minnesota	11,527 workforce members, 2,208 child care providers (51% FCC), 257 trainers	Not reported
Porter & Bromer (2020)	N	Descriptive	MIXED	United States (national sample)	47 directors at staffed FCC networks	Not applicable
Reid et al. (2020)	N	Descriptive	QUANT	New York, New York	32 regulated FCC providers, 32 centers	4% Asian, 33% Black, 63% Latinx, 0% white
Rohacek & Adams (2017)	N	Descriptive	MIXED	5 counties across 4 states (Alabama, California, New Jersey, Washington)	Surveys: 407 centers and 534 regulated FCC providers Interviews: 55 stakeholders Focus Groups: 300 (caseworkers, center directors, and FCC providers)	Not reported
Sandstrom et al. (2018)	N	Descriptive	MIXED	Washington, D.C.	50 regulated providers, 35 stakeholders, secondary analysis (administrative data)	Not reported
Schneider et al. (2017)	N	Descriptive	QUANT	Massachusetts	7432 licensed centers and FCC programs	Not reported

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TABLE A4. CONTINUED
ARTICLES RELATED TO ECE SYSTEM FACTORS

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Schulman (2019)	N	Descriptive	QUANT	United States (national sample)	State child care administrators in 50 states and DC	N/A
Shdaimah et al. (2018)	Y	Descriptive	QUAL	New York	55 regulated FCC and center-based providers	Majority white
Tran et al. (2019)	N	Descriptive	QUAL	United States (national sample)	Document analysis of caseworker manuals	N/A
Tonyan (2017)	Y	Theoretical	QUAL	Not reported	1) 30 licensed FCC providers	
					2) 54 licensed FCC providers	Not reported
Washington & Reed (2008)	Y	Descriptive	MIXED	Massachusetts	Interview sample: 7 child care directors, 48 mothers, 19 regulated FCC providers, 2 FCC specialists	Not reported
Werner (2016)	N	Policy Brief	N/A	N/A	N/A	N/A

Notes: ¹Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. ²Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. ³Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown

**TABLE A5.
ARTICLES RELATED TO AVAILABLE RESOURCES AND SUPPORTS**

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Bromer & Porter (2019)	N	Descriptive	MIXED	United States (national sample)	156 staffed FCC networks in 39 states; 17 network director interviews	Not applicable
Bromer et al. (2009)	N	Quasi-experimental	MIXED	Chicago, Illinois	150 regulated FCC providers	1% Asian, 70% Black, 24% Latinx, 5% white
Gray (2015)	Y	Quasi-experimental	QUANT	Connecticut	51 regulated FCC providers	78% Black or Latinx, 22% white
Lanigan (2011)	Y	Descriptive	QUAL	Washington	54 regulated FCC providers	4% Latinx, 96% white
Lo et al. (2017)	Y	Descriptive	MIXED	Los Angeles County, California	70 regulated FCC providers	100% Chinese
Porter & Reiman (2015)	N	Quasi-experimental	QUANT	Connecticut	48 regulated FCC providers	33% Black, 42% Latinx, 18% white, 7% other
Porter & Bromer (2020)	N	Descriptive	MIXED	United States (national sample)	47 directors at staffed FCC networks	Not applicable
Tonyan et al. (2017)	Y	Descriptive	MIXED	Los Angeles, California	54 regulated FCC providers	4% Asian, 15% Black, 63% Latinx, 12% white, 6% other

Notes: 1Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. 2Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. 3Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown

**TABLE A6.
ARTICLES RELATED TO INDIVIDUAL PROVIDER CHARACTERISTICS**

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Armenia (2009)	Y	Correlational	MIXED	Illinois	445 regulated FCC providers	28% Black, 72% white
Bromer (2002)	Y	Descriptive	QUAL	Chicago, Illinois	7 licensed FCC providers; 14 parents	100% Black
Doherty et al. (2006)	Y	Descriptive	QUANT	Canada	231 regulated providers	Not reported
Gould (2015)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (Current Population Survey data from 1.2 million child care workers and other workers)	4% Asian, 14% Black, 20% Latinx, 60% white, 2% other
Holas-Huggins & Kerwin (2009)	N	Descriptive	QUAL	7 communities in Massachusetts	603 ECE workers (various settings) and parents	Not reported
Houser et al. (2012)	N	Descriptive	QUANT	New Jersey	132 regulated FCC providers, 16 other HBCC providers	8% Asian or Indigenous, 51% Black, 26% Latinx, 15% white
Lessard et al. (2020)	Y	Literature Review	N/A	N/A	N/A	N/A
New Jersey Association of Child Care Resource and Referral Agencies (2011)	N	Policy Brief	QUANT	New Jersey	All regulated FCC providers statewide	Not reported
NSECE Project Team (2013)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (NSECE 2012)	N/A
NSECE Project Team (2016)	N	Descriptive	QUANT	United States (national sample)	Secondary analysis (NSECE 2012)	N/A
Porter & Bromer (2020)	N	Descriptive	MIXED	United States (national sample)	47 directors at staffed FCC networks	Not applicable
Tuominen (2003)	Y	Descriptive	QUAL	Washington	16 licensed FCC and 4 unlicensed providers	40% Black, 35% white, 20% Latinx, 5% Asian
Whitebook et al. (2006)	N	Descriptive	QUANT	California	1800 regulated FCC providers	Weighted population estimates: 5% Asian, 15% Black, 35% Latinx, 1% Indigenous, 42% white, 3% multiethnic

TABLE A6. CONTINUED
ARTICLES RELATED TO INDIVIDUAL PROVIDER CHARACTERISTICS

Article	Peer Reviewed?	Type of Study	Primary Data Type ¹	Setting	Sample description ²	Race/Ethnicity of FCC providers (unless otherwise specified) ³
Whitebook et al. (2019)	N	Descriptive	QUANT	United States (national sample)	Secondary data analysis (NSECE, OES, CPS, other various data sets)	N/A

Notes: 1Primary data type key: QUANT = quantitative; QUAL = qualitative; MIXED = mixed methods. 2Regulated family child care (FCC) provider designation include those who are licensed, registered, or certified; varies by state standards. Other setting types listed as specified in article. FFN=family, friend, and neighbor caregivers. 3Table reflects racial and/or ethnic breakdowns, to the extent described in each article, in the following categories (shortened in the table for readability): Asian, Asian American, Hawaiian, or Pacific Islander; Black, African American, or African; Indigenous, Native American, American Indian, or Alaska Native; Latinx/o/a or Hispanic; white or Caucasian; multiethnic, multiracial, or mixed; other or unknown