CROSS-SECTOR PROGRAM SELECTION, QUALITY IMPROVEMENT, AND SYSTEM-BUILDING IN EARLY CHILDHOOD EDUCATION: EVIDENCE FROM A STATEWIDE REFORM IN LOUISIANA

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APPROVAL OF THE DISSERTATION

This dissertation, "Cross-Sector Program Selection, Quality Improvement, and System-Building in Early Childhood Education: Evidence from a Statewide Reform in Louisiana," has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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DEDICATION

Because she's more than I deserve, more than I thought possible in a partner, and more than responsible for anything positive I ever accomplish in this life, I dedicate this dissertation to my wife, Liza Carter. Without her, I would be (even more of) a mess. I love you with all of my heart and I appreciate you more than you will ever know.

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LINKING DOCUMENT

Early learning experiences are critical for children's development (Shonkoff & Phillips, 2000). Decades of evidence indicate that early childhood care and education (ECE) programs can positively impact both short- and long-term outcomes (Deming, 2009; Phillips et al., 2017; Yoshikawa et al., 2013). Programs providing high quality teacher-child interactions, or those in which adults interact with children in a warm and engaging way, offer the greatest benefits, but access to high-quality interactions is variable and often quite low (Dowsett et al., 2008; Helburn & Howes, 1996; National Institute of Child Health and Human Development, 2006). Further, low-income children are less likely than their higher-income peers to be enrolled in high-quality programs, though these children may benefit most from such programs (Bassok & Galdo, 2016; Votruba-Drzal et al., 2013).

To improve access and quality in early childhood programs, particularly for low-income children, ECE leaders have introduced policies that increase funding to expand center-based ECE programs, elevate quality standards, or require accountability (Build Initiative, 2020; Early Childhood Learning and Knowledge Center, 2019; Friedman-Krauss et al., 2019). Despite these measures, it has proven difficult to ensure that all children and families eligible for publicly funded care are able to access high-quality programs.

Improving access and quality at scale is especially difficult in ECE because the three sectors of center-based programs operate separately from one another (Regenstein & Lipper, 2013). These sectors, which include subsidized child care, federal Head Start, and public pre-kindergarten (pre-K), were designed for different purposes, provide

different services to children and families, operate under different regulatory structures and quality standards, are funded at different levels, and, on average, provide disparate levels of quality (Bassok et al., 2016; Dowsett et al., 2008; Henry et al., 2006). To unify this "fragmented" system and improve program quality at scale, recent ECE policies have sought to unify standards and accountability across sectors.

This dissertation addresses three sets of problems related to this fragmentation across ECE sectors, and does so within the context of a sweeping ECE reform in Louisiana. In 2012, Louisiana enacted The Early Childhood Education Act, or *Act 3*. Act 3 consolidated control of all ECE sectors within the Louisiana Department of Education (LDOE). The central feature of Louisiana's reform was its unique Quality Rating and Improvement System (QRIS). This QRIS was unique in that it was 1) mandatory for all publicly funded sites and 2) based solely on scores from a widely validated observational measure of teacher-child interactions, the Classroom Assessment Scoring System (CLASS, Pianta et al., 2008). Louisiana implemented Act 3 statewide in the 2015-16 school year. LDOE required the creation of "community networks" across the state to implement this QRIS locally, provide programs with support on the CLASS, and build cohesive local ECE systems. Community network leaders were also required to begin developing coordinated enrollment plans to centralize the application, search, and selection processes for parents enrolling their children in publicly funded programs.

In this dissertation, I use rich administrative data from LDOE coupled with data from two surveys collected by our team as part of a multi-year, research-policy partnership between the Louisiana Department of Education (LDOE) and the University of Virginia. The goal of the dissertation is to provide new insights about the ways in

which cross-sector fragmentation creates challenges both for families and for quality improvement initiatives, and to highlight ways in which Louisiana has managed to tackle and address these challenges. Each chapter focuses on a different set of key ECE stakeholders and their experiences navigating this fragmented system: the parents of young children navigating the ECE systems, the ECE programs themselves, and the local leaders who are charged with reducing the fragmentation.

The first fragmentation challenge is the lack of convenient, current, reliable, and accessible information for parents about program quality and availability across sectors. Parents often struggle to identify high quality, accessible programs that meet their needs (Child Care Aware of America, 2016; Mattingly et al., 2016; Rose & Elicker, 2008). Although earlier studies have compared the characteristics of parents who select into center-based programs over home-based programs (Fuller et al., 1996; Liang et al., 2000), the available research has not examined how parents make choices between the various sectors within the center-based system. Such an understanding is critical because children's experiences vary across these sectors and this variation may have implications for their development. Moreover, understanding how differences in parents' preferences and searches relate to the sectors they ultimately choose may help inform policy efforts to increase access at scale.

In the first paper, "Are there differences in parents' preferences and search processes across preschool types? Evidence from Louisiana," (published during 2018 in *Early Childhood Research Quarterly* with Bassok, Markowitz, and Player) we assess low-income parents' preferences, their search and selection processes, and the degree to which these preferences and search processes varied based on the sector of program they

ultimately selected for their children. Analyzing survey data collected in 2014-15 from low-income parents who enrolled their four-year-old children in publicly-funded programs across five parishes in Louisiana, we find that parents cited universally strong preferences for quality, but that parents who enrolled their children in child care programs typically experienced more difficult search processes and were less often enrolled in their preferred programs than parents who enrolled their children in Head Start and pre-K programs. These results suggest that future policies may need to address either information or access gaps that prevent parents from enrolling their children in programs for which they are eligible. Coordinated enrollment programs like those currently taking shape in Louisiana and elsewhere in the country are designed to address such gaps and these findings can inform the development of these programs.

The second set of problems I explore in this dissertation relates to measuring levels of quality, as well as improvement over time, across the entire system of ECE programs. Center-based sectors operate separately from one another and the quality measures within their regulatory structures have typically varied. As a result, consistent measures have not been systematically collected and compared within a state or city's entire ECE system. The lack of systemwide data on program quality over time, or even at a single point in time, makes it difficult to know whether center-based programs provide better quality today than they did in previous years, or whether trends in quality improvement vary across sectors or community characteristics. This is a problem because quality improvement may be more difficult in some contexts than in others. Research shows, for instance, that program quality is typically lower in child care centers than in pre-K and Head Start programs, and that programs serving children in low-income

communities are of lower quality, on average, than in higher income communities (Bassok & Galdo, 2016; Henry et al., 2006). Differences in resources that constrain *levels* of quality could also pose hurdles for *improvement* efforts, but to date, no available research has compared improvement trends across program contexts.

The systemwide observational data collected as part of Louisiana's QRIS provides a unique opportunity to develop a systemwide understanding of changes in program quality in the context of a large-scale improvement effort. In the second paper, I, with co-authors Daphna Bassok and Anna Markowitz, leverage the universal nature of Louisiana's QRIS to examine both levels of systemwide quality and multiyear improvement trends using four years of quality data from each publicly-funded ECE program in the state. Earlier studies have shown meaningful differences in program quality across sectors and community characteristics such as local poverty (Bassok & Galdo, 2016; Henry et al., 2006). We add to this work by exploring whether rates of improvement also vary across sectors and by levels of community risk (as indicated by various health, economic, and educational measures).

We find that initial program quality was lowest in child care centers and in the most "at-risk" communities. Across the four-year study, we find that program quality improved statewide and that within-program improvements were central to these broader improvement trends. We also show that rates of improvement in child care programs were the largest across sectors and that the large disparities across sectors observed in the first year of the study diminished substantially over four years. Finally, despite slower initial improvement, we find that programs in the most disadvantaged communities did not differ from those in more advantaged communities in their long-term improvement

patterns. As policymakers consider this statewide improvement, it is important to note that Louisiana aligned its QRIS with various state- and local-level initiatives to support improvement on the CLASS. Future efforts to reform ECE systems and improve quality at scale should align the goals of their reforms with the resources and incentives they provide to meet communities' diverse needs.

As mentioned above, policymakers have introduced various efforts to unify standards and quality across sectors. A remaining problem that I explore in this dissertation relates to how little we know about these efforts to bring sectors together and lead them at the local level. Several states have reformed their governance structures to reduce disparities across sectors, introduce accountability and collaboration, and improve quality at scale (Goffin et al., 2011; Kagan & Gomez, 2015; Regenstein & Lipper, 2013). Policymakers are also creating local systems in ECE to implement state policies, unify programs across sectors, and support quality improvement. Evidence from K-12 suggests that school districts play a critical role in supporting local school quality and offers several examples of effective strategies that may apply in ECE settings (Anderson & Young, 2018; Leithwood, 2010), but policymakers lack empirical evidence on local systems from the ECE context.

Analyses from the first four years of Act 3 implementation (2016-2019) reveal considerable variation in both levels of quality and improvement across community networks. This variation raises questions about network leaders' strategies to support local programs and the diverse challenges they faced in leading cross-sector systems. LDOE offered autonomy to network leaders as they built their networks, implement the state's QRIS, and supported program improvement. Using data from a survey of

community network leaders that I designed with Daphna Bassok and Anna Markowitz and disseminated statewide during September 2019 (N=58 leaders, 91% response rate), I examine network leaders' experiences building cohesive, cross-sector ECE networks in the third paper.

The CLASS was the central focus of Louisiana's QRIS as well as several state-led initiatives to support quality improvement. Because network leaders were charged with connecting local programs with state policy and supporting local improvement on the CLASS, I first assess the degree to which leaders reported an understanding of and buy-in for the CLASS tool. I then explore the strategies and challenges they reported in their work to improve program quality across sectors. Finally, because support from local networks may have influenced programs' beliefs about the CLASS tool and Louisiana's QRIS, I assess the degree to which network leaders perceived buy-in for the CLASS among local programs. Results reveal that community networks implemented various strategies to promote quality improvement in their networks. However, network leaders often struggled to support programs across each sector. Differences in sector-level support for the CLASS reflected these struggles and highlight the challenges of leading cross-sector systems. Policymakers designing similar systems in other contexts should consider strategies for identifying cross-sector disparities within individual communities and monitoring progress toward addressing them.

By exploring the characteristics and behaviors of parents who select into different program sectors, the differences in these sectors' improvement trends over time, and the experiences of local ECE governance systems, I provide new insights on problems that policymakers hope to address when unifying ECE system quality and governance.

Results from these papers, both individually and collectively, have implications for future reform efforts in Louisiana and in other states.

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Are there Differences in Parents' Preferences and Search Processes across Preschool Types? Evidence from Louisiana

Daphna Bassok, Preston Magouirk, Anna Justine Markowitz, Daniel Player

Abstract

A rising proportion of four-year-olds now attend formal, or center-based, early childhood education (ECE) programs. Formal settings, such as Head Start, public preschool, and subsidized child care centers vary significantly in regulation, funding, and service provision. As these differences may have substantial implications for child development and family well-being, understanding how parents search for and select formal programs is critical. Using data from a sample of low-income families with four-year-olds enrolled in publicly-funded programs, we examine whether parents' preferences for ECE and their search processes vary across formal ECE program types. We find little evidence of differences in preferences across preschool types but do find significant differences in parents' search processes. Parents with children in subsidized child care consider more options, consider their search more difficult, and are less likely to call their child's program their “first choice." Implications for policy and future research are discussed.

Most four-year-olds in the United States regularly experience non-parental care, and a rising proportion of these children are enrolled in "formal" or center-based early childhood education (ECE) programs (Magnuson & Waldfogel, 2016). The formal sector includes a diverse set of ECE programs including federally-funded Head Start programs, state-funded preschool, as well as for-profit, not-for-profit, and faith-based child care programs, some of which receive public funds through parents' use of child care subsidies. Although each of these program types provides center-based classroom experiences for preschool-aged children, they differ with respect to their funding levels, regulatory structures, workforce characteristics, and service provision (Bassok, Fitzpatrick, Greenberg, & Loeb, 2016; Henry, Gordon, & Rickman, 2006), and these differences may have important implications for children and families.

Although there is substantial variation in quality *within* program types, particularly by state and locality, recent research suggests that, on average, in national samples, Head Start and state-funded preschool are of higher average quality than the private child care centers receiving public subsidies that low-income children might otherwise attend (Bassok et al., 2016; Dowsett, Huston, & Imes, 2008). For example, using nationally-representative data, Johnson, Ryan & Brooks-Gunn (2012) show that even after controlling for an extensive set of family characteristics, subsidy-eligible children who enrolled in Head Start or state-funded preschool experienced substantially higher quality care than those who attended private child care centers funded in part by child care subsidies. One explanation for this pattern is that in many states Head Start and state preschool are subject to more stringent quality regulations than child care centers. For instance, because the educational credentials required to work in Head Start and state

preschool exceed those required in licensed child care settings, teachers in those settings are more likely to hold bachelor's degrees than are child care workers in private settings (Whitebook, Phillips, & Howes, 2014).

Services provided to families also vary across program types. For example, Head Start programs provide extensive services for low-income children with special needs and in many states provide services for families beyond child care centers, including health services, parenting supports, and work training. Such services may mean that Head Start is more effective than other preschool types in influencing both family and child outcomes. For instance, research in a national Head Start sample, suggests that Head Start programs impact maternal educational attainment as well as parenting practices relative to the families of children in non-Head Start settings (Gelber & Isen, 2013; Sabol & Chase-Lansdale, 2015; Schanzenbach & Bauer, 2016).

Finally, formal ECE types differ with respect to practical features that may be salient to parents, including their eligibility criteria, capacity, price, transportation provision, and length of day. Head Start and public preschool programs are generally free to all eligible families. Child care centers receiving public subsidies, on the other hand, typically rely on program fees and subsidies provided to low-income families, which may be linked to employment requirements. These differences may have important consequences for families, particularly low-income families which are more likely to be constrained by cost and logistical factors (Child Care Aware of America, 2015; Mattingly, Schaefer, & Carson, 2016).

Given that the type of ECE program a child experiences may have important implications for their own developmental trajectory and their families' wellbeing, it is

important to understand how families end up in one type of center-based program versus another. While a number of studies have explored which families select into the formal ECE sector and which select home-based options (e.g. Fuller, Holloway, & Liang, 1996; Liang, Fuller, & Singer, 2000), we have very little evidence about the selection processes that lead families into different types of center-based ECE settings. Given the high rates of participation in formal settings among four-year-olds, there is a need to understand not only which children attend formal settings, but how they sort into different types of settings. This is the gap the current paper aims to fill.

Using data from a large survey of low-income Louisiana parents whose four-year-old children were enrolled in formal ECE settings that receive some type of public funds, the present study provides the first descriptive evidence about differences in parents' preferences and search processes across three major formal program types used by low-income four-year-olds—Head Start, publicly-funded preschool, and private center-based child care settings that receive funding, in part, from child care subsidies. Although there are significant differences across states in how the early childhood landscape is organized and regulated, and the current study is focused specifically on a single state, results from this descriptive study provide hypothesis-generating information as to why similar families enroll their children in different program types, and about how parents are currently navigating the fragmented formal ECE market. Implications for policies, including interventions designed to influence parents' ECE choices are discussed.

Background

We begin by describing the three primary types of publicly-funded formal ECE programs used by low-income children, highlighting key differences across preschool

types and findings from studies that have assessed the impacts of each program type. We then summarize the existing evidence on parents' preferences and search for their early childhood program. We cite a variety of research studies, many of which use national data across multiple program types, but acknowledge that these on-average estimates may mask important heterogeneity, and are not specific to the Louisiana context that is the focus of the current work.

The formal ECE sector has expanded substantially over the past 50 years. From 1968 to 2000, enrollment rates in formal ECE for four-year-olds increased from 23% to 68% (Bainbridge, Meyers, Tanaka, & Waldfogel, 2005)), a proportion that has been relatively stable at about 70% through 2013 (Magnuson & Waldfogel, 2016). Increasing public provision of formal ECE for low-income children has facilitated this expansion. For example, Head Start enrollment increased from about 450,000 children in the 1980s to more than 925,000 in 2014 (Office of Head Start, 2016). The program served about 9% of four-year-olds in 2015 (Barnett & Friedman-Krauss, 2016). State preschool programs have also experienced a substantial period of growth. Programs now exist in 43 states and serve nearly 30% of four-year-olds, a doubling of enrollment since 2002 (Barnett et al., 2016). Even with this expansion, however, about 30% of four-year-olds attend non-public formal ECE programs, such as licensed private child care centers, which in most contexts, face less stringent regulations. Among low-income four-year-olds, public programs such as Head Start and public preschool account for most formal ECE enrollment. Still, these public programs fail to serve the majority of eligible children (Barnett et al., 2010; HHS-ACF, 2010).

Head Start

Head Start is a federally funded anti-poverty program that provides free ECE for low-income three- to five-year-old children as well as comprehensive services for their families, including health, nutrition, social, and employment support services. Head Start programs operate under stringent regulations requiring them to continuously monitor and improve program quality in order to maintain funding (Currie & Neidell, 2007; Walters, 2015).

Head Start is targeted; the program prioritizes access for children in families with an annual income at or below the federal poverty level. Nonetheless, roughly 85% of Head Start programs are estimated to be oversubscribed (HHS-ACF, 2010) and recent evidence suggests that only 40% of eligible children are served by Head Start programs nationwide (Barnett & Friedman-Krauss, 2016; Schmit, 2013). Additionally, hours of operation are often limited and inflexible, with over half of programs providing half-day ECE, which may pose significant problems for working parents (Barnett & Friedman-Krauss, 2016). In Louisiana, the context for the current study, Head Start programs serve about 12% of four-year-olds (Barnett et al., 2015; Louisiana Department of Education, 2016; Louisiana Policy Institute for Children, 2014).

State Funded Public Preschool

State funded preschool programs aim to promote school readiness at kindergarten entry. Public preschool programs, which are offered in both public schools and community organizations, often mirror lower elementary school settings, dedicating a large portion of program time to academically-focused content (Pianta & Howes, 2009). Lead teachers in most programs are required to hold bachelor's degrees and to undertake

specialized training in early childhood settings (Barnett et al., 2017; Barnett, 2003; Whitebook et al., 2014).

Public preschool programs vary significantly across states in terms of access, duration of care, and quality. For example, 33 state programs require families to meet income-based eligibility criteria. Public preschool programs are generally, but not always, free, both in Louisiana and nationwide. Thirty-eight state programs operate during the academic year only, and 23 state programs provide only part-day ECE. In some states, state-funded preschool programs may be co-located in settings including Head Start programs or private child-care settings, and at times, funding sources are blended to build cohesion across types of ECE. In Louisiana, the Cecil J. Picard LA 4 Early Childhood Program (LA4) is the primary provider of full-day (six-hour) state-funded preschool, serving 26% of low-income four-year-olds statewide in public school settings. LA4 meets 9 of the 10 minimum quality standards set by the National Institute for Early Education Research (NIEER) (Barnett et al., 2017). In Louisiana, state-funded preschool is generally operated independently from Head Start and private child care.

Center-Based Child Care

As defined in the current study, child care centers are privately operated, regulated through licensing standards (which in Louisiana and most other states are less stringent than those governing public preschool and Head Start programs), and funded on the basis of variable tuition payments. Both services provided and overall quality varies significantly across child care centers. For example, private child care centers operating in some communities may be well-resourced with strict quality standards; some centers may pursue accreditations ensuring quality. Oher centers, and in particular centers

serving low-income children and families, may only respond to mandatory licensing requirements.

Families may find child care centers meet their practical needs, as they often provide longer, more flexible hours of operation, operate year-round, and may still provide services when children are sick. Low-income families, those with an annual income at or below 85% of the state median income by family size, are eligible for publicly-funded child care subsidies from the Child Care and Development Block Grant (CCDBG), but subsidies often fail to reach eligible children or cover the full cost of ECE. Low-income Louisiana parents may receive subsidies through the Child Care Assistance Program (CCAP), a program administered by the Louisiana Department of Education (Louisiana Policy Institute for Children, 2014). In the present study, we look exclusively at private child care centers receiving at least some public dollars through parents' use of such subsidies.

Differential Impacts of ECE Programs Across Program Types

A large body of research has examined the effects of Head Start and specific state preschool programs. A number of rigorous studies demonstrate that both Head Start and state preschool programs yield immediate benefits for children (Fitzpatrick, 2008; Gormley & Gayer, 2005; Ladd, Muschkin, & Dodge, 2014; Phillips, Gormley, & Anderson, 2016; HHS-ACF, 2010; Weiland & Yoshikawa, 2013; Wong, Cook, Barnett, & Jung, 2008). Evidence on the longer-term impact of these programs is more mixed. Some studies find benefits not only through elementary school (Fitzpatrick, 2008; Ladd et al., 2014; Phillips et al., 2016), but also into adulthood (Crocker, Thomas, & Currie,

2002; Ludwig & Miller, 2005; Schanzenbach & Bauer, 2016); others show rapid fade-out (Lipsey, 2015; HHS-ACF, 2010).

Typically, these studies compare a particular program (e.g. Head Start) to a "business as usual" condition, which includes a wide variety of program alternatives (e.g. state-funded preschools, private child care centers, and home-based settings). To date, there has been relatively little research explicitly comparing the impacts of one type of formal care arrangement relative to another (e.g. the effect of Head Start relative to child care programs receiving state subsidies). This is, in large part, due to methodological challenges related to identifying confounding factors that may drive observed differences in outcomes across program types.

The few studies that have explicitly compared program types find that on average children in public preschool programs perform better on assessments of academic skills than do comparable peers in private, center-based child care programs. For example, using nationally representative data, Bassok and colleagues (2016) find that children in public preschool programs achieve higher mathematics and reading scores than students in private center-based child care programs. Several recent studies show that while public preschool students demonstrate stronger cognitive gains than Head Start participants, Head Start attendance is associated with improved social skill development and child health outcomes relative to public preschool (Gormley, Phillips, Adelstein, & Shaw, 2010; Henry et al., 2006; Zhai, Brooks-Gunn, & Waldfogel, 2011).

In contrast, recent analyses of data from the Head Start Impact Study show that program impacts are heterogeneous, and that the benefits are concentrated among those children who, in the absence of Head Start, would likely have attended family child care

homes (Feller, Grindal, Miratrix, & Page, 2016; Walters, 2015). These studies raise the possibility that Head Start may not yield a meaningful advantage over other formal ECE options. However, our understanding of the relative merits of each ECE program type is currently underdeveloped.

Parents' Choices within the Formal Sector

Previous research on parents' preferences and search for ECE has focused on two aims (1) describing parents' preferences and search for ECE programs broadly across all ECE types, and (2) understanding which parents select formal programs for their children (rather than informal or home-based programs). This first body of work finds that nearly all parents are seeking a warm environment where their child's development will be supported (Barbarin et al., 2006; Rose & Elicker, 2008). At the same time, nearly all parents choose programs quickly and do little comparison-shopping (Anderson, Ramsburg, & Scott, 2005; Forry, Tout, Rothenberg, Sandstrom, & Vesely, 2013; Layzer, Goodson, & Brown-Lyons, 2007). The second finds that African-American children are more likely than white children to enroll in formal ECE programs and that Hispanic children are least likely to enroll (Fuller et al., 1996; Liang et al., 2000; Magnuson & Waldfogel, 2005; Meyers & Jordan, 2006). Parent education and income positively correlate with formal ECE enrollment, though very-low income, low-education parents often enroll their children in Head Start (Coley, Votruba-Drzal, Collins, & Miller, 2014; Fuller et al., 1996; Huston, Chang, & Gennetian, 2002). The existing literature fails to address how parents make choices *within* the diverse, expanding formal ECE sector.

Program preferences. Survey-based studies indicate that parents consistently indicate that "quality," defined as supportive learning environments, warm student-

teacher relationships, and high levels of teacher education is important to them when selecting ECE programs (Barbarin et al., 2006; Cryer & Burchinal, 1997; Robert Wood Johnson Foundation (RWJ), 2016). This self-reported preference for quality has been documented across many surveys, and patterns are comparable across socioeconomic and racial groups (e.g. Forry et al., 2013; Meyers & Jordan, 2006; Sandstrom & Chaudry, 2012).

Parents also seek programs that operate during their work hours, are affordable, and are conveniently located (Barbarin et al., 2006; RWJ, 2016; Rose & Elicker, 2008; Sandstrom & Chaudry, 2012). These concerns are most pronounced among low-income, working families who experience more constraints in terms of both affordability and nonstandard employment schedules (Kim & Fram, 2009). For instance, Rose and Elicker (2008) find that low- and middle-income mothers rated practical and convenience factors more highly than high-income mothers.

Parents' stated preferences differ across respondents who use formal versus informal ECE options (Early & Burchinal, 2001; Peyton, Jacobs, O'Brien, & Roy, 2001). For example, Coley et al. (2014) show that parents with stronger preferences for provision of sick care, location, affordability, small numbers of children in the ECE setting, and provider language were more likely to enroll their children in informal settings (e.g. non-center, home-based settings), whereas parent preferences for provider training were associated with the use of formal ECE. Although these associations may reflect parents' after-the-fact justifications for their choices, they do provide suggestive evidence that parents' choices between formal and informal ECE settings may reflect

differences in preferences or needs. To date, however, no research links parent care preferences to their care selections *within* formal program types.

Search for programs. Research on *how* parents find ECE suggests that parents' search is limited, that they lack information about the availability and quality of existing options, and that they rely primarily on family and friends for information (Chase & Valorose, 2010; Chaudry et al., 2011; Forry, Isner, Daneri, & Tout, 2014; RWJ, 2016). For example, Layzer and colleagues (2007) reveal that 41% of parents finished their search after one day. Anderson and colleagues (2005) report that 75% of their sample of low-income parents considered only one ECE arrangement. There may be several reasons why parents' searches are, on average, so narrow. The stress and business of parents' daily lives may preclude a lengthy search, or there may be very few options in their choice set that have slots available and are viewed as affordable. Indeed, data from a recent, nationally representative sample of parents with children under the age of five reveal that 66% of parents report having access to "just a few" program options or just one option (RWJ, 2016).

This widely held perception that options are unavailable likely reflects a true lack of programs that meet families' needs in some communities. However, it may also be that parents lack important *information* about available programs. Research suggests that parents tend to turn to informal networks for information (Iruka & Carver, 2006; Layzer et al., 2007; Pungello & Kurtz-Costes, 1999), while only a small proportion uses community referral services (Chase & Valorose, 2010; Pungello & Kurtz-Costes, 1999). Again, no studies we are aware of explore differences in search processes across formal

ECE types; moreover, the above studies focus broadly on 0-5 year olds, and as such may mask important patterns present in the 4-year-old year specifically.

Present Study

Despite substantial differences between program types within the formal sector, there have been no prior studies that explore whether parents' preferences and search for ECE systematically differ across formal program types. This is significant because understanding the reasons families select into different programs has important implications for the design of policies. The present study seeks to understand how low-income parents of four-year-olds in the Louisiana navigate the fragmented formal sector in making their ECE decisions. Specifically, we ask:

1. What are low-income families in Louisiana looking for in formal ECE settings for their four-year-olds?
2. How do parents identify and select ECE programs?
3. Do parental preferences and search processes differ across types of formal ECE settings?

The study uses data from Louisiana, a state working to improve access to high quality programs and facilitate simplified selection processes for parents by unifying program standards across ECE types and providing equitable program access to parents through coordinated enrollment and informational initiatives (Appel, Alario, Thompson, Carter, & Kleckley, 2012). As more states attempt to consolidate the fragmented ECE landscape and provide information to help parents navigate ECE choices, it is important to examine parents' stated ECE preferences and reported search processes. Systematic differences in preferences or search across formal ECE program types may provide

important lessons to shape policies aimed at improving access to high quality ECE for all children. Moreover, a clearer understanding of parent sorting across formal programs types may inform discussions on the relative effects of different program types. Though the present study is conducted in a specific policy context with specific sector distinctions unique to the state, this analysis will provide important descriptive information and provide initial evidence for further hypothesis generating around the role of preferences and search in parents' selection into varying types of ECE programs.

Method

Data and Sample

Data were collected during the 2014-15 school year as part of a researcher-practitioner partnership with the Louisiana Department of Education (LDOE), which included a large study examining efforts to improve quality and reduce fragmentation across publicly-funded, formal ECE settings in Louisiana. The study focused on parishes that were participating in the pilot phase of Louisiana's early childhood reform efforts. In partnership with LDOE, five Louisiana parishes were selected among the 13 pilot parishes, in order to capture regional diversity and include both urban and rural communities. Within parishes, all ECE programs were eligible if they (1) were participating in the "pilot year" for a state early childhood reform (which included all Head Start and public preschool programs and a portion of center-based child care programs that accepted subsidies); (2) included classrooms that primarily served four-year-old children; and (3) those classrooms primarily served typically-developing children (e.g., self-contained and reverse mainstream classrooms were excluded).

We selected 80 programs across five parishes, with probability of selection in each parish proportional to the total number of programs in that parish relative to the total number of programs across all five parishes. All programs that received some public funding were eligible, including Head Start, state preschool, and non-profit or for-profit child care centers that received public-funded child care subsidies. Once a program was selected, one classroom serving primarily typically-developing four-year-olds was randomly selected to participate. All parents were invited to respond to surveys, which were available both on paper and online. Classroom teachers sent home up to three copies of the paper surveys, and received small incentives if most parents in their classroom returned a survey. All parents received a children's book with the survey and were entered into a lottery for a participation incentive if they consented to take part in the study.

Response rates were moderate to high. Of the 1,677 parents receiving the survey, 1,303 parent respondents completed and returned surveys (78% overall response rate, ranging from 67 to 85% across parishes). To ensure comparability across our analyses, we focused on a fixed sample of parents who had data available for all measures considered in the study (that is, preferences and search), resulting in a final sample of 851 parents. However, we also ran specification checks, in which we replicated our analyses leveraging all parents who answered a specific item. In these analyses (available upon request) sample sizes ranged from 979 to 1,144, and results mirrored the fixed sample results closely.

Measures

Parent preferences. The parent survey asked "When selecting child care/preschool for your child, how important were the following," and included eleven program features: (1) has warm and nurturing teachers; (2) provides a safe and clean environment; (3) teaches children letters, numbers, and other academic skills; (4) teaches children how to get along well with others; (5) is free or inexpensive; (6) accepts Child Care Assistance Program; (7) provides transportation; (8) also serves my other children; (9) is in a convenient location; (10) offers convenient hours; and (11) offers services for children with special needs. Each of these 11 features contributed unique information regarding parents' considerations when choosing an ECE program, and together the items were designed to align with key aspects of quality discussed in the developmental and policy literature, including process quality (e.g. warm teachers), structural quality (e.g. a clean and safe environment), cost (e.g. affordability), convenience, (e.g. transportation), and children's developmental outcomes (e.g. academic skills, access to special education services). Parents answered on a 4-point scale from "not important," to "extremely important." Each of the 11 items was recoded into dichotomous variables such that "1" indicates that parents responded that a given preference was "extremely important" and "0" otherwise.

Search. We explored parents' search for ECE using three sets of survey items which addressed: (1) the information parents used to guide their search, (2) the extent to which parents engaged in comparison shopping, and (3) parents' perceptions of the search process. First, parents were asked to identify the source of information that was most important in finding their child's ECE program: friends and family, public schools,

media advertisements, referral agencies, or other. Responses were coded as indicator variables with a value of "1" for each individual response and "0" otherwise.

Second, parents answered 3 items regarding their comparison-shopping. Parents reported whether they visited their chosen program, whether they considered other program(s), and whether they visited other program(s) ("1" indicates that they did consider other programs or visit another program, "0" indicates they did not). Finally, parents reported on two items designed to capture the difficulty of the search process. Parents rated the ease of their search process ("1" indicates the search process was easy, that is "not difficult at all" to "not very difficult," "0" indicates parents indicated the search was "very difficult") and indicated whether their child's program was their top choice.

Program type. We compared preferences and search processes across the three primary types of formal ECE programs that exist in Louisiana: Head Start, defined as programs that receive federal Head Start funds; state-funded preschool programs; and child care programs, defined as privately operated, licensed Type III programs, which include for-profit, non-profit, religious, or independent centers that accept public subsidies. Programs were classified into program types based on state records; 26% of the sample attended a Head Start program, 63% a state preschool program, and 11% were enrolled in a child care program. Sample representation by program type broadly reflects statewide enrollment; 22% of publicly-funded four-year-olds in Louisiana were enrolled in Head Start programs in 2014-2015, compared to 69% and 3% in state preschool and child care, respectively (Louisiana Department of Education, 2015).

Program characteristics. To assess differences across program types in measures of classroom quality, program structure, or service provision, we provided information from director surveys and ratings from third-party observers (see Table 1). Directors reported whether programs operate a waitlist, charge tuition, offer "full-day" care (e.g. at least eight hours each day), operate during the summer, provide transportation, offer developmental assessments, and provide special needs services. We also included average classroom sizes of sampled classrooms, the percentage of teachers with at least a BA, and assessment data from a widely-used, well-validated observational measure of teacher-child interactions, the Classroom Assessment Scoring System (Pianta, La Paro, & Hamre, 2008).

Covariates. We used child and family demographic information to assess whether families differ systematically across programs and to test whether differences across programs in preferences and search are explained, in part, by these characteristics. Child covariates included child race (White, Black, Hispanic, other race), gender, and age in years. Family covariates included a 7-category measure of family income ($15,000 or less, $15,001-$25,000, $25,001-$35,000, $35,001-$45,000, $45,001-$55,000, $55,001-$65,000, and missing income); a 3-category measure of parental education (high school diploma or less, some college, and college degree or more); an indicator for whether a non-English language was spoken in the home; and an indicator for single-parent household.

Table 2 presents sample characteristics. Forty-one percent of parents had attained a high school diploma or less. Forty-six percent of families had incomes under $15,000, and 44% led single parent households. As expected, about half the children in this sample

were female and the average age was roughly four years (4.39). Sixty-eight percent of children were Black, 21% were white, 4% were Hispanic, and 8% identified as another race. Table 2 also disaggregates sample characteristics across program types; we discuss these patterns below.

Analytic Strategy

We used linear probability models (LPMs) to examine the relationship between program type and parents' preferences. We ran two models for each outcome. The first (model 1) predicted each outcome based *only* on program type. This model provided the "raw" mean differences in ECE preferences and search across program types. To account for systematic sorting by family demographic characteristics across formal program types, in model 2 we added the vector of child and family covariates described above. All standard errors were clustered at the program-level. Findings were not sensitive to the use of logistic regression models as compared to LPMs.

Results

Program and Family Characteristics, by Program Type

Table 1 presents characteristics for the 80 sampled programs, overall and by program type. The majority of teachers held BAs (85%), which is a requirement for public preschools. Most programs operated a waitlist (78%) and very few charged parents tuition (16%). Less than half offered full-day (44%) or summer (32%) care options, and 69% offered transportation. Finally, 84% and 79% of programs offered developmental assessments and services for children with special needs, respectively.

Differences in these characteristics across program types were consistent with patterns reported in earlier studies. For example, teachers in preschool (93%) and Head

Start (76%) programs were far more likely to hold BAs than in child care centers (44%) (Barnett, 2003; Whitebook et al., 2014). It is worth noting, however, that mean differences across sectors can mask substantial *within-program* variation, and that in particular, the variation in child care centers for both class size and teacher education were about one and a half times of that of Head Start and preschool programs.

There were meaningful differences in structural features and services offered to children and families across program types. No Head Start programs received payment from parents, while 9% of state preschool programs and 73% of child care centers reported that some parents paid for care. Child care centers were more likely to provide full day care and summer care (100% and 82%, respectively) relative to Head Start (72% and 56%) and state preschool programs (21% and 11%). State preschool programs (98%) were also far more likely than Head Start (33%) and child care (9%) centers to provide transportation, likely reflecting their location in public schools. Finally, preschools were most likely to provide special needs services (93%), followed by Head Start (71%), and child care centers (30%).

Table 2 presents demographic characteristics across formal care types and highlights statistically significant differences in family and child characteristics. For instance, Head Start parents had disproportionately low levels of education, with 50% of parents earning a high school diploma or less and just 5% earning a BA or more. In contrast, 14 percent of preschool parents and 20 percent of child care parents held a BA or more. As expected, families in Head Start, which is targeted towards the most vulnerable children, had lower earnings and were more likely to lead single-parent

households than families of children attending other formal care. Families with children enrolled in state preschool were the highest earning in the sample.[1]

Enrolled children's characteristics also differ significantly across program type. For example, children in Head Start were more likely to be female (57%) than children in preschool (47%) and child care centers (43%). Further, children in Head Start were, on average, nearly 3 months younger than preschool children and 2 months younger than child care children. Finally, sampled Head Start children were far more likely to be Black (87%) compared to children in state preschool (59%) or child care centers (73%).

Parents Preferences

Figure 1 displays the percentage of parents who indicated a particular program feature was "extremely important." The features that parents were most likely to characterize this way were "build academic skills" (88%), "offer clean and safe environments" (87%), and "provide warm teachers" (81%). Sixty-six percent also cited the importance of programs that build children's social skills. These items, which emphasize the care environment and learning opportunities, were cited as "extremely important" far more often than practical features of care, such as affordability (49%), transportation (32%), location (58%), or hours of operation (41%).

Table 3 presents results from regressions exploring whether these patterns systematically differ across program types. For each outcome, the first regression column provides means comparisons by program type, with child care centers as the reference

[1] 13 percent of child care parents did not include family income data. We include controls for missing family income status in our regressions to account for potential differences in this group relative to the broader sample.

group. The second regression column for each outcome accounts for demographic differences across program types.

On the whole, the factors that parents noted were "extremely important" were consistent across the three types of ECE settings considered. For instance, parents with children in all three settings were equally likely to note that academic skill building or social skill development were "extremely important." Although uncontrolled models revealed that parents in child care centers that received public subsidies were more likely to have preference for clean and safe environments than both Head Start and preschool parents, less likely to report preferences for affordability than Head Start parents, and more likely to prefer centers that accepted CCAP than preschool parents, these associations were all reduced by the addition of socio-demographic controls accounting for differential selection into settings, specifically race and family income.

In models that include covariates, there are only two instances for which there are statistically significant differences across program types. First, 39% of state preschool parents cited the provision of transportation as extremely important. After controlling for covariate differences (column 14), parents whose children were enrolled in state preschool were 26 percentage points more likely to report that transportation was extremely important than child care parents, and 28 percentage points more likely than Head Start parents. Preschool parents were also 18 percentage points more likely than child care parents and 23 percentage points more likely than Head Start parents to report that enrolling their child in the program their other children attended was extremely important (column 16).

How are Parents Searching for Care?

Figure 2 presents the information sources parents consulted to support their search, revealing that most parents found their child's ECE programs through friends and family (39%) or local public schools (44%). Relatively few utilized information from advertisements (6%) or referral agencies (11%). Unlike parent preferences, for which we found few differences across program types, there are meaningful differences in parents' information sources, highlighted in Table 4.

The odd numbered columns show raw differences across program types. For example, column 1 shows that two-thirds (67%) of Head Start families reported they learned about their child's current ECE program through personal networks. In contrast, only 42% of parents in child care centers and 26% of parents in state preschool reported personal networks as their primary source. Column 3 shows that parents with children in public preschool were much more likely to report getting information primarily through their local public school (59%) than child care parents (23%) and Head Start parents (13%). Relative to Head Start and state preschool parents, child care parents were more about three times as likely to report using advertisements or the internet for their searches (18% compared to 6% and 3%). These differences are still significant and of comparable size even when covariates are included (columns 2, 4, and 6). Taken together, the results indicate that child care parents use a more diverse set of sources to find out about their child's programs than either Head Start or preschool parents.

Figure 3 turns to parents' comparison shopping and satisfaction with their search. Most parents (79%) report visiting their child's care arrangement prior to enrolling them; fewer parents indicate they considered another program in addition to the one they ultimately selected (59%) and less than a third indicated they visited a program other than

their chosen site. At the same time, the majority of sampled parents indicated they did not find the search difficult (79%) and enrolled in their top choice programs (81%).

Table 5 disaggregates these patterns by program type. These models suggest that child care parents do more comparison shopping than parents in other program types. They were 11 percentage points more likely to visit their current programs (86%) than preschool parents, even after controlling for covariate differences (column 2). There were no differences across program types in the likelihood that parents considered any other program in addition to the one they ultimately selected. However, in additional analyses (available upon request) we do find that child care parents are over 20 percentage points more likely than other parents to indicate they considered a state preschool in addition to the program they ultimately selected. Indeed, after accounting for covariate differences, child care parents were 13 and 19 percentage points more likely to visit multiple programs than were parents who enrolled their children in Head Start and preschool, respectively (column 6).

Child care parents appear somewhat less satisfied with their searches, however. For instance, 63% of child care parents reported that finding care was not difficult, whereas in Head Start and state preschool, the percentages were 77 and 84, respectively. These differences persist in models including child and family covariates (column 8), though the significant difference between Head Start and preschool parents attenuated with the addition of the control for race in column 8. Similarly, after controlling for covariate differences, parents of children in child care centers were 12 percentage points less likely than Head Start parents to report enrolling in their top choice program.

Discussion

Over the past 50 years, the number of four-year-olds in some kind of formal ECE arrangement has tripled (Bainbridge et al., 2005; Magnuson & Waldfogel, 2016). For low-income families in particular, the options for formal ECE are diverse and may have long-term implications for both children and families. This study provides the first descriptive evidence regarding differences in parents' preferences and search processes across formal program types as they exist in the Louisiana policy context.

Consistent with previous literature, our study indicates that warm teachers, a clean, safe environment, and academic supports were the features that parents across all program types were most likely to characterize as "essential" in the ECE programs they sought for their children, (Barbarin et al., 2006; Chaudry et al., 2011; RWJ, 2016; Rose & Elicker, 2008; Sandstrom & Chaudry, 2012; Shlay, 2010; Shlay et al., 2005). Location, hours, and other convenience factors were less frequently cited as "extremely important" and parents' preferences for these factors at times varied by program types. For instance, relative to parents with children in either Head Start or child care, parents whose children were enrolled in preschool programs were more likely to rate transportation provision and finding a program that enrolls their other child as "extremely important." Overall, the results indicate that the low-income, Louisiana parents included in our sample have similar preferences for care across program types. However, "convenience features" might ultimately drive parents to sort into ECE arrangements that best meet their needs.

Differentiation across program types is more pronounced when we turn to search processes. In line with earlier research, we find parents doing limited comparison shopping (Anderson et al., 2005; Forry et al., 2014; Layzer et al., 2007). For instance,

about 40% of our sample did not consider another program in addition to the one where they ultimately enrolled their child, and 68% did not visit a center other than the one where their child enrolled. However, these overarching patterns differed across groups. Specifically, parents whose children ended up in child care centers searched more, considered more alternatives, found the search process more difficult, and were less likely to consider their child's program their first choice.

Unfortunately, the survey leveraged for the current analysis does not allow us to disentangle *why* these differences emerge across program types, only that they do exist. Like many studies of parents' ECE selection, we use survey data from parents *after* they make their ECE selection. The program where we observe a child is driven by a combination of demand and supply factors. In other words, we are capturing some combination of parents' preferences for care and the choice set that is available to them. We do not have an empirical means by which to disentangle these two possibilities. For example, we do not know families' home or work addresses, and therefore cannot model their choice set. We also lack sufficiently detailed information about family resources to assess parents' eligibility for nearby programs.

Understanding the drivers of the patterns we documented is essential for designing policies. Towards that goal, we provide several candidate explanations for why the search processes reported by parents who enrolled their child in child care centers were significantly different from those with children in either Head Start or state preschool.

One possibility is that child care families, who were the highest earning in the sample, missed the eligibility cut-off for Head Start and were not prioritized for targeted

preschool programs, and therefore limited their search to child care settings. Their searches may be more challenging because of limits to their choice set. Such a scenario is consistent with earlier work by Fuller and Liang (Fuller & Liang, 1996), which highlights the challenges of finding care for families whose income levels put them just above the poverty cut-off.

Another possibility is that families of children enrolled in child care settings did meet eligibility criteria and did apply, but due to limited supply were not given a slot and therefore sought out other alternatives. A third possibility is that child care parents searched more and reported that they did not enroll in their top choice because they lacked critical information about their options and/or the process of enrolling four-year-old children in Head Start or state preschool (timeline, eligibility requirements, etc.) in Louisiana. Many parents who enrolled in Head Start and preschool relied on social networks or schools for information; for parents who do not have networks with a connection to Head Start or a state preschool, it may be that accessing this information was difficult.

It is certainly plausible that child care programs better meet some families' needs or preferences than do Head Start or public preschool programs in their choice set. For example, it may be that child care settings provided more of the convenience features parents needed. Child care centers in this sample universally offered full day services, and many also offered summer care, which may be crucial for working parents. In addition, as noted above, there is substantial variability within program types, and many child care centers provide high quality care. Indeed, in the current sample, child care centers demonstrated CLASS scores and group sizes comparable to Head Start and

preschool programs, so opting into a child care setting did not necessarily imply a trade-off between convenience and quality.

Still, even if some parents who select child care view it as a superior option to Head Start or state preschool, it is not clear why this group of parents was systematically more likely to note their child's program was not their first choice or that their search was difficult. Perhaps for our current sample, finding an available and affordable child care option was more challenging, and less centralized, than searches for public preschool or Head Start. However, the fact that in supplementary analyses (available upon request) 52% of child care parents indicated they also considered a public preschool program and 26% indicated they also considered a Head Start program suggests that at least for some families, lack of availability, lack of eligibility, or lack of information, are keeping them from their preferred options.

For policymakers seeking to improve the quality of children's ECE experiences, these hypotheses suggest divergent policy solutions. For example, if parents lack information about their choice set and the quality differences between their options, informational interventions may be highly effective. For instance, the movement towards Quality Rating and Improvement Systems (QRIS) in many states could provide important supports for parents attempting to make ECE decisions. In particular, to the extent that QRIS reduce fragmentation by equalizing information across program types, parents may be more able to identify and select programs that meet their needs. Indeed, Chase and Valorose (2010) report that 88% of their sample of Minnesota parents would find a QRIS very helpful (53%) or somewhat helpful (35%), a proportion that was higher among low-income parents.

If, on the other hand, parents are aware of local program options, but lack access to high-quality, affordable programs for any of several reasons, then informational interventions may be less effective than policies that improve access to and affordability of high quality options. For instance, if parents are choosing programs that are low in developmental quality, but provide the practical features they require, policymakers could consider means by which state preschool or Head Start programs may extend services to accommodate the needs of parents (extended hours, etc.). If parents cannot access preferred settings because of cost or eligibility restraints, ECE policy should focus on expanding access, whether by increasing the value of child care subsidies or expanding available slots in Head Start and preschool settings.

More research is needed to understand how low-income parents make choices across the fragmented ECE landscape, particularly across states and geographic areas with different ECE regulations and funding structures. In Louisiana, new centralized enrollment efforts, which allow parents to learn about and apply for any publicly-funded ECE program from a centralized portal, will offer a unique opportunity to understand these processes. Studying these coordinated enrollment efforts will allow researchers to better understand the extent to which parents' decisions could be supported by information, or whether other policy interventions are needed to create high quality ECE opportunities for all low-income children. In the meantime, the current study highlights the importance of integrating practical features into QRIS systems. The variation by program type in parents' preferences for convenience features highlights the relevance of these categories for parents; providing streamlined information across program types will

allow parents to make more informed tradeoffs, and should facilitate better ECE decision-making in the short run.

Limitations

This study is the first to document differences in low-income parents' preferences and search processes across ECE program types within the formal sector, and highlights substantial differences in search processes between families who end up in child care settings receiving funding from state child care subsidies compared to those in either Head Start or preschool. In interpreting these findings, several data limitations are worth highlighting.

First, surveys are common but imperfect tools for understanding parents' ECE preferences and search processes. A perception of the "desirable" survey response may lead parents to state that their child's development was the most essential factor in their decision, even if in practice affordability and location were more binding. Our results are almost certainly biased by these types of issues, though this limitation is inherent to this whole body of research.

Second, the fact that we are leveraging survey data from parents *after* they have enrolled their child in a particular ECE program may have important implications for the ways in which they responded to survey items. We assume that parents' preferences influence their ECE choice (e.g. if parents state a preference for warm teachers, they seek out a program that has warm teachers). However, this may not necessarily be the case. For example, it could be that parents enrolled in a program that provides transportation will report that this transportation is "extremely important" at higher rates than they would have had we surveyed them before they had finalized their decisions. In

the present study we observe similar families, in terms of stated preferences, sorting into program types that offer varied services. If, however, parents are choosing programs that do not meet their preferences because of either a lack of information or a lack of access to the kinds of programs they would prefer, then there may be ample room for policy intervention.

Third, the available data cannot conclusively determine the individual choice sets from which parents selected their children's programs. Family income, children's age, and practical constraints such as hours, cost, or location likely influenced the options available to parents. For example, children under the age of four would not have been eligible to enroll in state preschool, while some of the higher earning families in the sample may not have been eligible for, or prioritized to enroll in, Head Start. Further, parents with nontraditional work schedules, for instance, may not have been able to enroll their children in state preschool programs which seldom offered flexible hours or summer care. While we cannot determine choice sets at the individual level, a key contribution of this study is the descriptive information it provides about how parents who ultimately enroll their children in different program types tend to differ in their demographic characteristics as well as their preferences and search processes.

Finally, the proportion of parents using child care in the sample is relatively low (11%). This is an artifact of our study's focus on programs with classrooms that primarily serve four-year-olds. With the expansion of public preschool, child care centers now more often serve younger children. Our study does not capture infants and toddlers, for whom parents' preferences and search processes likely differ substantially (Coley et al., 2014). For example, the majority of children in our sample were enrolled in free or near-

free ECE settings; the present findings suggest it is likely that in a sample that included more children enrolled in child care settings parent concerns over cost would play a stronger role.

Conclusions

This study provides suggestive descriptive evidence that low-income parents in Louisiana with children enrolled in Head Start, state-funded preschool or private child care centers, have very similar preferences with respect to the aspects of ECE programs they view as most important, but they have quite different experiences searching for programs. The study does not address *why* this is the case, which is an important question for ECE policymakers. Instead, it raises important questions for future research. It may be that ECE policy needs to focus on strategies to increase access to affordable and high quality ECE opportunities for all low-income children, while ensuring that these programs meet families' diverse practical needs. Alternatively, if information gaps are pronounced, policies could focus on the refinement of QRIS and leveraging information to help parents make optimal choices. In the meantime, the results of the current paper highlight the need for further research to improve our understanding of how low-income parents make choices across the fragmented ECE landscape. Specifically, it is necessary to improve our understanding of the experiences of families in child care settings, who in the currents study were less likely to view their child's ECE program as their first choice and more likely to experience searches they perceive as challenging.

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Table 1.

Program Characteristics, Overall and by Type

	Overall	Head Start	Preschool	Child Care	Differences
Operating waitlist	77.78	100.00	75.56	50.00	A B
Charging parents tuition	16.00	0.00	8.70	72.72	B C
Offering full-day care	44.00	72.20	21.28	100.00	A C
Providing summer care	31.94	56.25	11.11	81.82	A C
Providing transportation	68.92	33.33	97.78	9.10	A C
Providing dev. assessments	84.06	88.89	87.50	63.64	
Offering special needs services	78.87	70.59	93.18	30.00	A B C
Class size	18.55	18.94	18.71	17.18	
	(2.29)	(1.98)	(1.94)	(3.60)	
Teachers with BA or more	84.84	75.71	93.23	44.03	B C
	(25.77)	(25.31)	(16.49)	(36.71)	
Average CLASS score	4.79	4.69	4.81	4.83	
	(0.65)	(0.65)	(0.67)	(0.64)	
Share of programs by type		22.50	63.75	13.75	

Note. Standard deviations for quality variables reported in parentheses. N=80. The Differences column indicates significant mean differences at the 0.05 level across program type. Differences between Head Start and Preschool are indicated by the letter A; differences between Head Start and Child Care are indicated by the letter B; and differences between Preschool and Child Care are indicated by the letter C.

Table 2.

Sample Covariates

	Overall	Head Start	Preschool	Child Care	Differences
Parent education					
HS or less	41.26	49.55	40.19	28.13	A B C
Some college	46.39	45.95	45.56	52.08	
4-year degree	12.35	4.50	14.26	19.79	A B
Family income					
$15,000 or less	45.92	63.96	39.63	39.58	A B
$15,001-$25,000	17.95	23.42	16.48	13.54	A B
$25,001-$35,000	11.19	6.31	12.22	16.67	A B
$35,001-$45,000	5.36	1.35	6.48	8.33	A B
$45,001-$55,000	7.58	0.90	10.74	5.21	A B
$55,001- $65,000	6.76	0.90	9.63	4.17	A B
Missing income data	5.24	3.15	4.81	12.50	B C
Non-English language in home	12.23	16.22	10.56	12.50	A
Single parent household	44.06	51.80	39.81	50.00	A
Focal child characteristics					
Female	49.30	57.66	47.04	42.71	A B
Age	4.39	4.22	4.46	4.37	A B
	(0.61)	(0.49)	(0.67)	(0.36)	
Race					
White	21.10	2.25	30.19	13.54	A B C
Black	67.72	86.94	58.89	72.92	A B C
Hispanic	3.61	7.66	1.85	4.17	A
Other	7.58	3.15	9.07	9.38	A B
Enrollment by type		25.87	62.94	11.19	

Note: Standard deviations for age reported in parentheses. N=858. The row missing income data indicates that the family did not report income data. The Differences column indicates significant mean differences at the 0.05 level across program type. Differences between Head Start and Preschool are indicated by the letter A; differences between Head Start and Child Care are indicated by the letter B; and differences between Preschool and Child Care are indicated by the letter C.

Table 3.

Parents' Ratings of Features of Care as Extremely Important, by Program Type

	Warm Teachers		Clean/Safe		Academics		Social Skills		Affordable		Takes CCAP	
	1	2	3	4	5	6	7	8	9	10	11	12
Head Start	-0.07	-0.05	-0.08*	-0.07+	-0.01	0.01	-0.00	-0.02	**0.12****	0.06	**-0.00**	-0.08
	(0.05)	(0.05)	(0.04)	(0.04)	(0.03)	(0.03)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)	(0.06)
Preschool	-0.07	-0.06	-0.07*	-0.05	-0.04	-0.02	-0.04	-0.02	0.02	0.06	-0.10*	-0.09+
	(0.05)	(0.05)	(0.03)	(0.03)	(0.03)	(0.03)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)	(0.05)
Constant	0.88**	0.83**	0.93**	0.89**	0.91**	0.84**	0.69**	0.90**	0.45**	0.29*	0.31**	0.39**
	(0.05)	(0.08)	(0.03)	(0.07)	(0.03)	(0.07)	(0.05)	(0.12)	(0.03)	(0.12)	(0.04)	(0.13)
Covariates		X		X		X		X		X		X
Observations	858	858	858	858	858	858	858	858	858	858	858	858
R-squared	0.00	0.03	0.00	0.03	0.00	0.04	0.00	0.03	0.01	0.09	0.01	0.07

Note: Robust standard errors in parentheses. Cells highlighted in **bold** indicate significant differences between Head Start and Preschool parents. For reach regression outcome, the first column presents differences in means across program types. The second column presents these differences when including several child and family covariates in the model. Covariates include child gender, race, parent education, family income, non-English language status, and single parent household status. 5% of the parent sample did not report family income, so we controlled for this in the covariates model instead of eliminating these parents from the sample. + $p<0.10$, * $p<0.05$, ** $p<0.01$.

Table 3.

Parents' Ratings of Features of Care as Extremely Important, by Program Type (Continued)

	Transportation		Serves Other Child		Convenient Location		Convenient Hours		Special Needs Services	
	13	14	15	16	17	18	19	20	21	22
Head Start	**0.05**	**-0.02**	**0.01**	**-0.04**	0.07	0.03	-0.11	-0.13+	**0.14****	0.07
	(0.04)	(0.05)	(0.04)	(0.05)	(0.06)	(0.07)	(0.07)	(0.07)	(0.05)	(0.05)
Preschool	0.22**	0.26**	0.18**	0.18**	0.07	0.08	-0.14*	-0.09	0.06	0.08+
	(0.04)	(0.05)	(0.04)	(0.04)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.04)
Constant	0.17**	0.16	0.28**	0.24*	0.52**	0.64**	0.52**	0.46**	0.19**	0.29**
	(0.03)	(0.10)	(0.03)	(0.12)	(0.05)	(0.14)	(0.06)	(0.13)	(0.04)	(0.10)
Covariates		X		X		X		X		X
Observations	858	858	858	858	858	858	858	858	858	858
R-squared	0.04	0.14	0.03	0.07	0.00	0.03	0.01	0.06	0.01	0.09

Robust standard errors in parentheses. Cells highlighted in **bold** indicate significant differences between Head Start and Preschool parents. For reach regression outcome, the first column presents differences in means across program types. The second column presents these differences when including several child and family covariates in the model. Covariates include child gender, race, parent education, family income, non-English language status, and single parent household status. 5% of the parent sample did not report family income, so we controlled for this in the covariates model instead of eliminating these parents from the sample. + $p<0.10$, * $p<0.05$, ** $p<0.01$.

Table 4.

Parents' Information Sources for Finding ECE Site, by Program Type

	Friends/Family		Public School		Ads/Internet		Referral Agency		Church/Other	
	1	2	3	4	5	6	7	8	9	10
Head Start	**0.26****	**0.22****	**-0.09**	**-0.07**	-0.13*	-0.13*	0.00	-0.00	-0.03	-0.01
	(0.07)	(0.07)	(0.08)	(0.08)	(0.06)	(0.06)	(0.02)	(0.02)	(0.04)	(0.04)
Preschool	-0.15**	-0.16*	0.37**	0.34**	-0.15**	-0.15*	-0.01	-0.01	-0.05	-0.02
	(0.06)	(0.06)	(0.08)	(0.08)	(0.06)	(0.06)	(0.01)	(0.01)	(0.04)	(0.04)
Constant	0.42**	0.49**	0.23**	0.33**	0.19**	0.11+	0.02	0.01	0.15**	0.06
	(0.05)	(0.13)	(0.07)	(0.12)	(0.06)	(0.07)	(0.01)	(0.03)	(0.03)	(0.07)
Covariates		X		X		X		X		X
Observations	858	858	858	858	858	858	858	858	858	858
R-squared	0.13	0.15	0.18	0.21	0.04	0.07	0.00	0.02	0.00	0.02

Robust standard errors in parentheses. Cells highlighted in **bold** indicate significant differences between Head Start and Preschool parents. For reach regression outcome, the first column presents differences in means across program types. The second column presents these differences when including several child and family covariates in the model. Covariates include child gender, race, parent education, family income, non-English language status, and single parent household status. 5% of the parent sample did not report family income, so we controlled for this in the covariates model instead of eliminating these parents from the sample. + $p<0.10$, * $p<0.05$, ** $p<.01$.

Table 5.

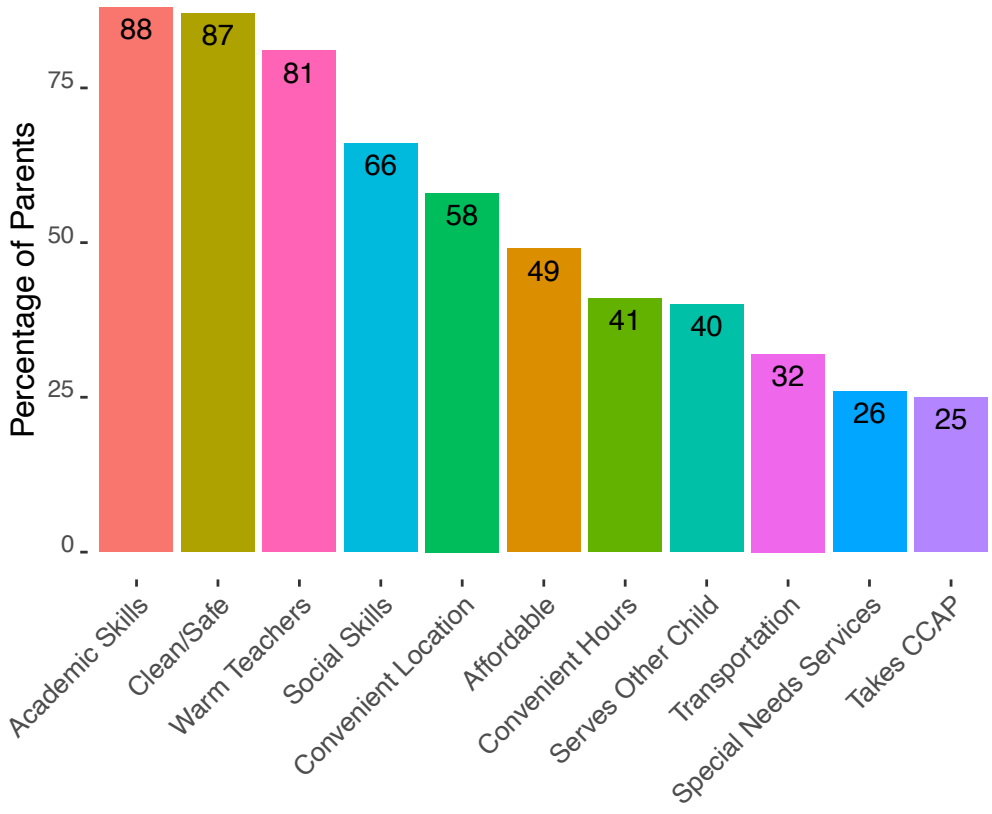
Parents' Search Processes and Satisfaction, by Program Type

	Visited Current		Considered Other		Visited Other		Easy Search		Top Choice	
	1	2	3	4	5	6	7	8	9	10
Head Start	**-0.04**	-0.06	-0.07	-0.05	-0.16**	-0.13*	**0.14***	0.13*	**0.13***	**0.12***
	(0.04)	(0.05)	(0.08)	(0.09)	(0.06)	(0.06)	(0.05)	(0.05)	(0.06)	(0.06)
Preschool	-0.11*	-0.11*	-0.13+	-0.10	-0.24**	-0.19**	0.21**	0.18**	0.06	0.03
	(0.04)	(0.05)	(0.07)	(0.08)	(0.05)	(0.06)	(0.05)	(0.04)	(0.06)	(0.06)
Constant	0.86**	1.06**	0.69**	0.38*	0.51**	0.21	0.63**	0.82**	0.74**	0.66**
	(0.04)	(0.09)	(0.07)	(0.14)	(0.04)	(0.19)	(0.04)	(0.10)	(0.06)	(0.11)
Covariates		X		X		X		X		X
Observations	858	858	858	858	858	858	858	858	858	858
R-squared	0.01	0.03	0.01	0.03	0.03	0.07	0.03	0.06	0.01	0.03

Robust standard errors in parentheses. Cells highlighted in **bold** indicate significant differences between Head Start and Preschool parents. For reach regression outcome, the first column presents differences in means across program types. The second column presents these differences when including several child and family covariates in the model. Covariates include child gender, race, parent education, family income, non-English language status, and single parent household status. 5% of the parent sample did not report family income, so we controlled for this in the covariates model instead of eliminating these parents from the sample. + $p<0.10$, * $p<0.05$, ** $p<0.01$.

Figure 1.

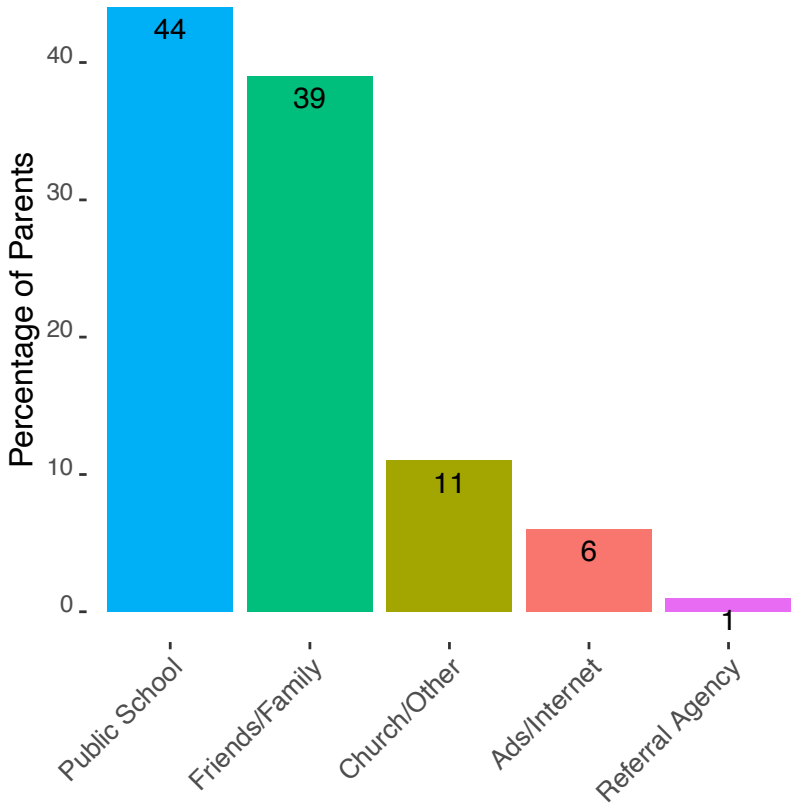
Percentage of Parents That Rate ECE Features as "Extremely Important"



Note: N=858.

Figure 2.

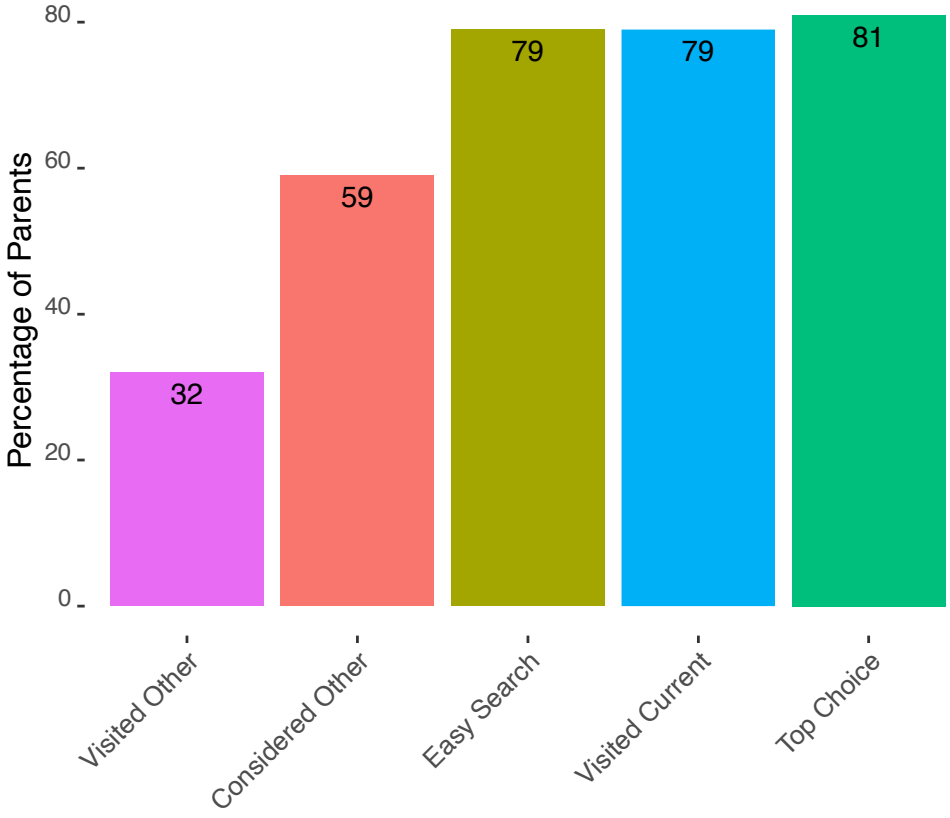
Parents' Primary Information Sources for Finding ECE Site



Note: N=858.

Figure 3.

Parents' Search Processes and Search Satisfaction (Percentages)



Note: N=858.

Systemwide Quality Improvement in Early Childhood Education
Evidence from Louisiana

Daphna Bassok, Preston Magouirk, Anna Justine Markowitz

Abstract

Despite substantial federal, state, and local investments in improving early care and education (ECE), we know little about whether early childhood program quality has improved over time. The lack of data tracking quality of publicly funded ECE programs at scale creates a major evidence gap for policymakers attempting to weigh the returns on, and future of, quality improvement policies. Data from Quality Rating and Improvement Systems (QRIS) provide a promising opportunity to address this problem. This study examines systemwide quality and improvement trends using four years of data from Louisiana, a state that requires QRIS participation from every publicly funded ECE program, including subsidized child care, Head Start, and state pre-kindergarten. We find a wide range of program quality across contexts, but also improvements in quality overall, across sectors, and across communities. Results also reveal differential growth in quality across sectors such that quality gaps diminished.

Children's early learning experiences are critical for their development (Shonkoff & Phillips, 2000) and decades of evidence suggest that high-quality early care and education (ECE) can positively impact both short- and long-term outcomes (Phillips et al., 2017; U.S. Department of Health and Human Services, Administration for Children and Families, 2010; Yoshikawa et al., 2013). To best serve young children, researchers and policymakers have advocated for expanding access to high-quality programs (Friedman-Krauss et al., 2019; Heckman, 2006; Shonkoff & Phillips, 2000). While in recent decades enrollment in ECE has expanded dramatically among children from birth to preschool (Burgess et al., 2014; Magnuson & Waldfogel, 2005), concerns over quality remain (Markowitz et al., 2018). Research indicates that programs providing the highest-quality interactions between young children and their teachers generate the greatest benefits for children (Hamre et al., 2014), but the quality of these interactions varies substantially across programs and is often quite low, particularly in programs serving the most disadvantaged children (Bassok & Galdo, 2015; Votruba-Drzal et al., 2010).

Policymakers have sought to improve ECE program quality in a number of ways. Traditionally the two primary approaches have been increasing minimum operating requirements (e.g. requiring higher teacher education levels in Head Start, tightening regulations in the Child Care and Development Block Grant (CCDBG)) and elevating funding levels (e.g. earmarking public funding for state pre-Kindergarten programs, 2018 increase in CCDBG funding). Nearly all states have also introduced Quality Rating & Improvement Systems (QRIS), which are early childhood accountability systems, which unify standards, evaluate and publicize quality, and typically provide monetary incentives for improvement) (Bipartisan Policy Center, 2018; First Five Years Fund, 2019; Kaplan

& Mead, 2017; Office of Child Care, 2019b; Regenstein & Lipper, 2013; Head Start Act, 2007; U.S. Department of Education, 2016; Warner-Richter, 2016). While efforts to improve ECE quality have expanded significantly over the past two decades, we know surprisingly little about quality across the entire system of center-based ECE programs and whether it has improved over time.

In part, this is because center-based care in the United States is provided primarily through three sectors, including subsidized child care programs; federal Head Start; and state-funded pre-Kindergarten (pre-K). Although each sector provides publicly-funded early education, they have different historic missions and are administered by different agencies, with divergent approaches to defining, measuring and regulating quality. These differences have made it impossible to conduct cross-sector quality comparisons or systemwide analyses. For example, while Head Start grantees are subject to evaluations of the quality of teacher-child interactions through their federal oversight, much of what we understand about quality in child care programs is confined to information about compliance with individual states' licensing regulations (e.g. adherence to group sizes and safety requirements) (Early Childhood Learning and Knowledge Center, 2019a; First Five Years Fund, 2019; U.S. Department of Health and Human Services, 2020). Longitudinal data systems are also rare within individual sectors, making it difficult to assess whether overall program quality within the child care, Head Start, or pre-K sector is improving over time.

QRIS are one avenue that could provide consistent, longitudinal measures of program quality across sectors. These systems now operate in over 40 states, and typically use the same quality measures across all center-based programs irrespective of

sector. However, most states' QRIS do not require universal participation across all programs and sectors. The programs who opt to participate may differ in important ways from those that do not. For this reason, many existing QRIS cannot provide either a complete snapshot of quality across a state's ECE programs, or a way to track quality improvement over time.

In contrast, Louisiana's QRIS allows for a systemwide, multi-year understanding of program quality. In 2012, Louisiana passed *Act 3*, or the *Louisiana Early Childhood Education Act* (Louisiana Early Childhood Act, 2012), which sought to ensure school readiness statewide. Act 3 consolidated administration for all publicly-funded ECE, including child care, Head Start, and pre-K, under the Louisiana Department of Education (LDOE), and, beginning in 2015-16, LDOE required all publicly funded programs in the state to participate in its QRIS.

Motivated by the large body of research that shows a link between teacher-child interactions and children's development in early childhood (Burchinal, 2018), Louisiana rates ECE sites based solely on the quality of teacher-child interactions as measured by the Classroom Assessment Scoring System (CLASS, (Pianta et al., 2008)), a widely used observational measure that has been linked (albeit modestly) to children's learning (Hamre, 2014). Since 2015-16, LDOE has collected CLASS data twice a year from every classroom in every publicly funded program in the state. These detailed data provide an unprecedented look at systemwide quality in ECE programs and are now available for four years.

Since the passing of Act 3, Louisiana also enacted a series of initiatives that explicitly aimed to foster improvement on the CLASS. These efforts ranged from

supports for low-performing programs, tax credits linked to quality ratings, and professional development and coaching focused on the teacher-child interactions (Lieberman, 2018). This paper provides the first *longitudinal* and *systemwide* look at ECE quality using a unique panel of *all* publicly funded, classroom-based settings in a state over a four-year period characterized by substantial investments in ECE quality improvement.

Louisiana's ECE reform sought to ensure high-quality programs across all sectors and all communities in Louisiana. Nationally, average quality is lower in private, center-based child care programs than in Head Start and pre-K programs (Bassok et al., 2016). This is perhaps unsurprising because child care programs operate under less rigid regulations than Head Start and pre-K, and receive far less public funding per child (Bassok et al., 2016; Henry et al., 2006; Johnson et al., 2012). Relatedly, program quality is also lower, on average, in more low-income communities (Bassok & Galdo, 2015; Valentino, 2018). To date, however, no studies have explored whether rates of *quality improvement* also vary across sectors and communities. As more and more states invest in systemwide approaches to improving access to high-quality care, it is important to understand whether additional supports are needed to ensure children are best served across all contexts. This paper's second contribution is examining whether and how quality improvement trends vary across sectors and communities.

Quality in ECE

The benefits of ECE for children are contingent on program quality (Burchinal, 2018; Friedman-Krauss et al., 2019). ECE quality is often thought of as having two components: structural quality and process quality. Structural measures of quality are

distal, regulable factors such as group sizes and teachers' educational credentials, and are hypothesized to support, but not guarantee, high-quality experiences for children (Dowsett et al., 2008; Phillipsen et al., 1997). Process quality refers to children's actual experiences and interactions in their ECE programs. Many studies have shown that the quality of children's interactions with adult caregivers is correlated with their developmental trajectories (Burchinal, 2018; Hamre, 2014).

Traditionally, policymakers have sought to improve quality by regulating structural program features, such as teacher-child ratios, under the assumption that doing so would provide the necessary conditions for engaging interactions in classrooms. For instance, the federal legislation reauthorizing Head Start in 2007 required that 50% of lead teachers nationwide earn a bachelor's degree in early childhood education or a related field by 2013 (Head Start Act, 2007). Unfortunately, existing studies show that these structural features are not systematically linked either to process quality or to children's learning outcomes, raising concerns about the utility of these policy approaches (Early et al., 2007; Friedman-Krauss et al., 2019; Head Start Act, 2007).

Increasingly, researchers and policymakers have focused on the proximal experiences of children in ECE classrooms (e.g. teacher-child interactions). The CLASS, which is the most widely validated measure of the quality of teacher-child interactions to date, is an observational tool that assesses the warmth of teachers' caregiving, the organizational structures they use to support children's learning (e.g. schedules and routines), their use of complex language, and the extent to which they scaffold instructional content through their conversations with children (Burchinal et al., 2008; National Institute of Child Health & Human Development Early Child Care Research

Network, 2002; Pianta, La Paro, & Hamre, 2008). The CLASS is now used in 23 states' QRIS, as well as in Head Start programs nationwide, as a tool to measure quality (Build Initiative, 2020; Early Childhood Learning and Knowledge Center, 2019a).

Variation in Program Quality

The quality of ECE programs, whether assessed using structural or process quality measures, varies across programs and often quite low. For example, a nationwide review of Head Start program quality reveals that the percentage of lead teachers with at least a bachelor's degree in ECE or a related field ranged from over 90% in some states to 36% in New Mexico (Barnett & Friedman-Krauss, 2016). A similar review of pre-K policies shows that only eight programs required lead and assistant teachers to attain at least 15 hours of annual professional development, which suggests varying levels of emphasis on improving teachers' instructional practices (Friedman-Krauss et al., 2018).

Studies also indicate that the quality of care children receive is often dependent upon the type of program in which they enroll or the characteristics of the communities where they live (Barnett & Friedman-Krauss, 2016; Burchinal, 2018; Helburn, 1995; Henry et al., 2006; Whitebook et al., 2014). Below we highlight the primary center-based sectors, summarize the literature exploring variation in quality across them, and detail disparities in quality across communities.

Sectors and Quality in ECE

Head Start. The federal Head Start program was introduced in 1965 to improve early learning and health outcomes for children in families at or below the federal poverty line. Head Start now enrolls over 750,000 three- and four-year-old children per year, as well as over 250,000 infants and toddlers in Early Head Start (Early Childhood Learning

and Knowledge Center, 2019b). The program provides health and dental, nutritional, and educational services, as well as parental education and employment supports (Currie & Neidell, 2007; Walters, 2015; Zigler & Styfco, 2010).

Congressionally authorized Head Start Program Performance Standards set explicit requirements for program curricula, instructional quality and evaluation, and student assessment to ensure high-quality learning experiences and continuous program improvement (Early Childhood Learning and Knowledge Center, 2019a). Since 2007, each grantee, or organization receiving Head Start funds, must participate in CLASS observations as part of a "Designated Renewal System" every five years (Administration for Children and Families, 2016; Friedman-Krauss et al., 2019; U.S. Department of Health and Human Services, 2016). While this system does not require that each classroom is observed annually, it does ensure that Head Start programs across the country are exposed to and, in many cases, trained on the CLASS.

Head Start collects annual data on program funding and several measures of structural quality that are publicly available in its Program Information Reports. These data indicate that structural quality has increased steadily in Head Start programs over time. For instance, 72% of lead teachers held at least a bachelor's degree as of FY-2018 relative to under 25% in 2000 (Bassok, 2013; Early Childhood Learning and Knowledge Center, 2019b). The evidence on *process quality* in Head Start is more mixed. Using multiple waves of a nationally representative sample of Head Start programs, one recent study showed large increases on the Early Childhood Environmental Rating Scales (ECERS-R), a measure that assesses both the resources and organization of the learning environment and teacher-child interactions (Aikens et al., 2016). The same report

documented no changes in average CLASS domain scores for Instructional Support, Emotional Support, or Classroom Organization between 2009 and 2014. However, programs were significantly less likely to score in the "low" range (between 1 and 2) for Instructional Support in 2014 than in 2009 (from 85 to 76 percent). Unfortunately, Head Start does not annually collect these process quality measures nationwide, so it is unclear whether individual programs are improving over time.

State-funded pre-K. Publicly funded pre-K programs first emerged in Tulsa, Oklahoma, several decades after Head Start as a way to expand access to high-quality ECE. They have since spread across 44 states and Washington, D.C., and serve 1.58 million children per year at a cost of $5.18 billion (Bartik et al., 2011; Friedman-Krauss et al., 2019; Gormley & Phillips, 2005). Pre-K classrooms often operate within public schools or community organizations. Oftentimes they resemble elementary school classrooms in their focus on academic preparation and their educational requirements for teachers. For example, public pre-k programs are typically required to administer school readiness assessments, and lead teachers in many states are required to hold educational credentials similar to those of other elementary school teachers in their state (Friedman-Krauss et al., 2019; Pianta & Howes, 2009).

There is considerable variation across states in the organization and administration of pre-K programs. For instance, programs are free in most but not all states. Out of 61 programs in 44 states and Washington, D.C., 32 restrict enrollment based on income. Per child funding for pre-K programs ranges from under $4,000 in some states to over $11,000 in New Jersey (Friedman-Krauss et al., 2019).

Due to data limitations, efforts to track quality improvement in state pre-K programs have not focused on observed quality but rather on changes over time in regulations and requirements. Since 2003, the National Institute for Early Education Research (NIEER) has evaluated state pre-K programs on a set of ten quality benchmarks (for example, curriculum standards, educational requirements for lead and assistant teachers, training in ECE, and a continuous quality improvement system). No state met each of the ten benchmarks in 2003. NIEER has since enhanced its standards for implementing continuous quality improvement plans, aligning learning standards, and requiring professional development for teachers, while also adding a benchmark for providing support for curriculum implementation. As of 2018, three states met all 10 quality benchmarks. Progress in meeting these standards has been notable in many states, but the 2018 report cites inadequate funding for slowing improvements in recent years (Barnett et al., 2004; Friedman-Krauss et al., 2019). No available studies track trends in the quality of teacher-child interactions in pre-K programs.

Child Care. Public subsidies for child care were originally funded to support parents' participation in the workforce. Private child care programs receive public funds by accepting subsidies from the Child Care Development Fund (specifically, the Child Care Development Block Grant (CCDBG) and Temporary Aid for Needy Families (TANF)). Families earning under 85% of the federal poverty limit are eligible for these subsidies, but funding is not guaranteed and many families are placed on waitlists. Private child care programs that receive subsidies are subject to their state's licensing requirements. These licensure standards typically place less emphasis on school readiness

than the standards governing Head Start or pre-K programs, and instead focus on safety regulations and features such as group sizes and teacher education.

Public funding for child care programs is low relative to Head Start and most pre-K programs. In FY-2018, the average yearly subsidy to center-based programs for three- and four-year-olds was just over $6,000, while per-child spending for Head Start exceeded $9,000 annually (Barnett & Friedman-Krauss, 2016; Office of Child Care, 2019a) and many 9-month state pre-K programs also exceeded this value (Friedman-Krauss et al., 2019). As a result, child care programs typically operate with fewer resources than programs in other sectors. Moreover, child care teachers, many of whom lack education beyond a high school diploma, often earn below $10 per hour and are significantly more likely than teachers in other sectors to report high levels of workplace stress, depend on government assistance programs, and leave their teaching positions (Whitebook et al., 1998, 2014).

There is no systematic evidence about how quality in child care programs—structural or process—has changed over time. However, recent initiatives indicate policy interest in quality improvement in this sector. For example, the 2014 reauthorization of the CCDBG required states to set development and training requirements for teachers, implement developmental guidelines from birth to school entry, and spend quality "set-asides" on at least one quality improvement activity (e.g., QRIS, supporting resource and referral agencies) (National Conference of State Legislatures, 2015).

Both program quality and children's developmental outcomes vary substantially across sectors. For example, using national data from the Early Childhood Longitudinal Study – Birth Cohort, Bassok and colleagues (2016) found school-based pre-K and Head

Start programs demonstrated lower child-teacher ratios, more frequent reading and mathematics activities, and a higher probability of following written curricula than center-based child care programs (Bassok et al., 2016). Using the same national dataset, another study shows that environmental rating scale scores were higher in Head Start programs than in other center-based programs (Hillemeier et al., 2013). These differences in quality likely result in differences across sectors in children's opportunities to learn in their ECE programs. Studies comparing children's learning outcomes across sectors suggest that after accounting for differences in background characteristics, children in pre-K and Head Start programs typically perform better on academic assessments than similar peers in child care programs (Bassok et al., 2016; Henry et al., 2006; Whitebook et al., 2014).

Quality Across Communities

Program quality also differs across communities, with lower quality ECE programs in communities with more low-income, Black and Hispanic families. For example, one recent paper combining data from 11 states showed that children concentrated in high-poverty areas were more likely to experience low-quality care than their peers in lower-poverty areas (Valentino, 2018). Using data from Georgia, Bassok and Galdo (2015) linked data from each of the state's public pre-K programs to local poverty measures and found that ratings of teacher-child interactions were lowest for programs in the most impoverished communities. Finally, similar work in New York City concluded that public pre-K programs available in predominately Black and Hispanic neighborhoods were rated lower than those available in white neighborhoods (Latham et al., 2019). One limitation of the existing literature is that it typically focuses on a single

sector (pre-K) and therefore does not account for all available program options available to families in communities. Another is that these studies rely on cross-sectional data, which detail quality at a single point in time. No available studies have examined whether quality improvement trends differ across communities based on demographic characteristics. This study addresses these limitations.

Louisiana and Act 3

The *Early Childhood Act*, or *Act 3,* was passed in 2012 to unify quality standards across all publicly-funded ECE programs, increase ECE quality statewide, and ensure all children enter kindergarten prepared. As part of Act 3, Louisiana introduced a mandatory QRIS which rated sites' quality based solely on observations of teacher-child interactions as assessed by the CLASS (Pianta et al., 2008). The QRIS was implemented statewide in the 2015-16 school year. The state required two observations per year in *every classroom* serving either toddlers (one to two years) or preschool-aged children (three to four years) within *every* publicly funded ECE program, including child care, Head Start, and pre-K.

In addition to implementing a mandatory QRIS, Louisiana introduced a series of additional efforts that aimed to improve teacher-child interactions (Cannon et al., 2018; Lieberman, 2018). The state created a set of tax credits to incentivize high CLASS scores. They provided targeted supports for programs with very low CLASS scores (Louisiana Department of Education, 2019b). They also introduced a free, mandatory teaching credential for child care teachers that emphasizes teacher-child interactions. The focused investment in quality improvement and the tight alignment between these improvement efforts and the way quality is measured in Louisiana make it a particularly promising context to examine systemwide improvement efforts.

Although a key goal of Louisiana's reform was to ensure quality improvements systemwide, fostering improvements could be more challenging in some contexts. For instance, child care programs may have found adapting to the demands of a novel evaluation system particularly challenging. Unlike Head Start and pre-K programs, which had prior exposure to classroom observations of instructional quality, child care programs were not previously evaluated on the quality of teacher-child interactions. Alternatively, if child care programs had previously struggled to provide professional development to their teachers, the introduction of additional resources and supports—as well as increased exposure to the CLASS—may have led to more rapid improvements in child care programs than in Head Start or pre-K.

Similarly, patterns of improvement may vary across communities based on their demographic characteristics. It may be that in the most disadvantaged communities, where additional funding for providing resources to local programs was limited, the new supports provided following Act 3 resulted in more rapid improvement. On the other hand, contextual poverty may have resulted in a weaker infrastructure for supporting local programs in their efforts to improve the quality of teacher-child interactions.

Current Study

Despite substantial federal, state, and local investments in ECE quality improvement, we know little about whether or not programs have improved over time, particularly at scale. This paper uses detailed data from Louisiana's mandatory QRIS to describe systemwide changes in program quality over a four-year period with an intense focus on quality improvement. Specifically, we ask:

1. What was the initial level of ECE system quality in Louisiana in 2016? How did this vary across sectors and communities?
2. To what extent did ECE system quality increase in Louisiana between 2016 and 2019? How did improvement trends vary across sectors and communities?

Method

Data

This study uses four years of LDOE administrative CLASS data from the 2015-16 through 2018-19 school years (we refer to these as 2016, 2017, 2018, and 2019). These data include scores from two annual CLASS observations conducted in every classroom serving toddlers (1 to 2 year-olds) and preschoolers (3 to 4 year-olds) in every publicly funded program in the state. For the current study, we use program-level data—that is, scores aggregated across classrooms to create a total program score—for the four years following statewide implementation of Act 3. All publicly funded programs with observation data for any year (2016 to 2019) are included (N=1,871). The number of publicly funded programs in Louisiana varied across years, as new programs entered the QRIS and others exited. Table 1 provides the number of publicly-funded programs operating each year.

Measures

Quality. CLASS observations are conducted by local observers, who are often elementary school principals, child care or Head Start directors, or other professionals who are trained on the CLASS observation protocol. To conduct observations, individuals must become certified CLASS observers following a standard protocol.

Certification requires observers' ratings of classroom quality to align with those of master CLASS observers across multiple observations.

The CLASS measures the warmth and sensitivity of the adults in the classroom, the supports they provide for language development, and the scaffolding of instructional content for concept development. Louisiana used two versions of the CLASS as part of its QRIS. The Toddler CLASS, used in classrooms serving children 15-36 months old, scores classrooms in the Emotional and Behavioral Support and Engaged Support for Learning domains. The Pre-K CLASS, used in classrooms where children are 3 to 4 years old, scores classrooms on Instructional Support, Emotional Support, and Classroom Organization domains (Pianta et al., 2008). CLASS scores range from 1-7. Within each classroom, all domain-level scores are averaged to generate a classroom-level score. All observation scores are then averaged across classrooms to generate a program score.

LDOE places programs in one of four possible categories based on these scores: Programs with scores ranging from 1 to 2.99 are classified as "Unsatisfactory." Beginning in 2017-2018, programs scoring at this level in two consecutive years were subject to loss of public funding. Programs scoring between 3.0 and 4.49 are classified as "Approaching Proficient," while programs scoring between 4.50 and 5.99 are classified as "Proficient." Programs scoring 6.00 and above are classified as "Excellent.[2]" These ratings are publicly available online. In this paper, we describe trends in the percentage of programs rated Proficient or above.

[2] Beginning in 2018-19, LDOE assigned ratings of "High Proficient" to programs scoring at or above 5.50 but below the 6.00 threshold for "Excellent."

LDOE aims to ensure the validity and reliability of their CLASS ratings. Specifically, LDOE contracts and dispatches third party, certified CLASS observers from outside of the community network to 50% of classrooms for a single observation during the school year and then compares local observations with third party observations of those classrooms. In cases where the raters' scores vary meaningfully, the third party scores are used. The analyses in this paper use the final LDOE data, which uses these replacements. Vitiello, Bassok, Hamre, Player, & Williford (2018) showed that Louisiana's local ECE observations were moderately associated with both researcher-conducted CLASS observations and children's learning gains.

Sector. Three primary program sectors make up the universe of programs serving children in Louisiana's publicly funded system. These include child care, Head Start, and school-based pre-K (which includes programs in both public and private schools).

Child Care. Child care programs enroll children using CCDBG or TANF funding through the Child Care Assistance Program (CCAP). CCAP is administered by LDOE and subsidizes enrollment in child care sites for low-income children from birth to age five through direct payments to providers (Louisiana Policy Institute for Children, 2014). As of 2018, over 14,000 children were enrolled using CCAP funds (Louisiana Department of Education, 2019a). The vast majority of Louisiana families receiving subsidies for child care programs only received about $1,800 (40% of the maximum allowable rate) and were required to cover the remaining costs of care on their own (Louisiana Department of Education, 2018).

Head Start. Head Start enrolls about 12% of all children enrolled in publicly funded early childhood programs. Communities across the state often use Head Start

funds to provide enrollment for three-year-olds not yet enrolled in pre-K programs, which typically serve four-year-olds (Louisiana Policy Institute for Children, 2014). In 2017, per child funding in Louisiana was $6,691 for Head Start and $12,468 for Early Head Start (Louisiana Department of Education, 2018).

Pre-K. Louisiana provides pre-K access for four-year-old children through a variety of programs. First, the Cecil J. Picard LA4 Early Childhood Program (LA4) provides funding for over 16,000 children to attend full-year, school-based pre-K programs across the state. The 8(G) Student Enhancement Block Grant Program (8(G)) is funded by the Louisiana Board of Elementary and Secondary Education and provides funding for about 3,000 low-income, four-year-old children to attend pre-K programs. Finally, the Nonpublic Schools Early Childhood Development Program (NSECD) funds enrollment for about 1,400 low-income, four-year-old children in state-approved private schools or child care sites providing six hours of daily programming (Louisiana Policy Institute for Children, 2014). Per child funding for pre-K in Louisiana was $4,580 in 2017 (Louisiana Department of Education, 2018).

The study sample includes 1,871 programs, including 867 (46%) classified as child care programs, 253 (14%) as Head Start programs, and 751 (40%) as pre-K programs.

Community Characteristics. We also link CLASS scores to demographic characteristics at the parish, or county, level. To do this, we use a comprehensive index of local childhood risk that was designed by the Tulane Institute of Early Childhood Mental Health and the Louisiana Department of Health, Office of Public Health, Bureau of Family Health. For each of Louisiana's 64 parishes, the index combines five economic

factors (percent unemployed, percent of births to single mothers, percent of mothers with less than a high school education, percent of children under age five living below the poverty line, and the median household income as a percentage of the federal poverty level), five health factors (percent of low birth weight babies, teen birth rate, infant mortality rate, percent of uninsured children, and maltreatment of children ages 0-5), and two educational factors (pre-literacy skills measured at kindergarten entry in 2015 and the percent of children in publicly funded early childhood programs in 2015) (Tulane Institute of Early Childhood Mental Health & Louisiana Department of Health, 2016). We sort communities, or parishes, into quartiles based on their index scores.

Analytic Strategy

We present statewide CLASS means and proficiency levels in every year and test whether in the baseline year (2016) scores and proficiency differed across sectors and community risk quartiles.

Then, to capture improvement we estimate Equation (1) for each program *i* in year *t*:

$$CLASS_{it} = \beta_0 + \beta_1 2017 + \beta_2 2018 + \beta_3 2019 + \varepsilon_{it}$$

where β_0 is the average CLASS score from 2016. β_{1-3} describe differences in CLASS scores in each year, relative to the baseline year of 2016.

Changes in quality over time could be driven by improvements within individual programs and by changes in the composition of programs operating within Louisiana's QRIS. For instance, overall quality in the state could improve if low-performing programs are shutting down and/or if higher-quality programs opened after 2016. To isolate the within-program improvement trends between 2016 and 2019 among the 1,605

programs in the sample for more than a single year, we re-estimate Equation (1) but include program-level fixed effects.

Next, we assess the degree to which quality improvement trends vary by sector. To do this, we re-estimate Equation (1) but include sector indicators as well as sector-year interaction terms. Finally, we assess variation in improvement trends across communities. After dividing communities (or parishes) into quartiles of local childhood risk and comparing program-level quality trends (scores and ratings) across these quartiles, we re-estimate Equation (1) but include indicator variables for each quartile of community risk as well as interactions with each quartile instead of sectors. The results capture trends in each quartile, by year, relative to trends in the lowest risk communities (in quartile 1).

Results

ECE Quality Levels by Sectors and Community Risk

Table 1 shows that the statewide average CLASS score in 2016 was 4.70, or .20 points above the 4.50 threshold for proficiency. Sixty-two percent of programs statewide were rated Proficient or above. Appendix Table A1 disaggregates the overall scores into individual domains and highlights that initial scores were lowest in the instructional support (pre-K) and engaged support for learning (toddler) domains.

Table 1 also highlights substantial differences in average CLASS scores across sectors. In 2016, the average score in child care programs was 4.30. Forty percent of child care programs were rated Proficient or above during 2016. CLASS scores and rates of proficiency were far higher among Head Start (4.64 and 61% Proficient or above) and pre-K programs (5.16 and 88% Proficient or above), respectively. Figure 1 shows that

there is also considerable overlap in program quality, as many child care and Head Start programs were rated as high as or higher than several pre-K programs.

Table 2 presents average CLASS scores and rates of proficiency in programs across each of the four quartiles of community-level risk. We find that programs in the lowest-risk communities (quartile 1) earned higher CLASS scores (4.80) and rates of proficiency (65%) than programs in higher-risk communities (4.70 and 60% Proficient or above in quartile 4). Average scores and proficiency rates were lowest in quartile 3 (4.58 and 58%).

ECE Quality Trends by Sectors and Community Risk

In Figure 2, we show that the average program-level CLASS score in Louisiana increased by .43 points (+.61SD), from 4.70 to 5.13, by 2019. In Figure 3, we show that the statewide rate of proficiency increased 23 percentage points, from 62% to 85%.

Statewide quality can improve from programs entering and exiting the sample across years or by individual programs improving over time. Appendix Table A2 presents results from panel regressions that highlight program-level growth trends across years. Column 2 of Appendix Table A2 shows that the average within-program improvement in CLASS scores was .37 points and the average program was 20 percentage points more likely to be rated Proficient or above in 2019 than in 2016 (Column 4). In additional analyses not included here but available upon request, we also show that programs exiting the sample after the 2016 school year demonstrated lower CLASS scores (4.23) than programs that remained (4.76) and programs that entered in 2017 (4.47), 2018 (4.72), or 2019 (4.91). The 1,280 programs present across all four years of the study improved from 4.79 to 5.17 (+0.38).

As shown in Table 1, the vast majority of programs across sectors earned scores above the 4.50-point threshold for proficiency by 2019. By the end of the study, 73% of child care programs (up from 40% in 2016), 93% of Head Start programs (from 62%), and 95% of pre-K programs (from 88%) were rated Proficient or above. Growth was largest in child care programs, where the average score rose by .57 points to 4.87. The average score in Head Start programs rose .37 points to 5.01. In Figure 4, we highlight the steep upward trend of CLASS scores within child care programs and the decreasing size of the gap between average scores for child care and other sectors. Growth in pre-K program quality was meaningfully smaller (+.27 points to 5.43) than in both child care and Head Start, but this sector still received, on average, the highest scores and pre-K programs were most likely to be rated Proficient or above in 2019.

In Figure 5, we present maps of average CLASS scores in each community network, from 2016 to 2019. The color shades correspond to quintiles of 2016 scores. In some parts of the state (in Northeast Louisiana), average scores actually fell in 2017 and remained at or near the proficiency threshold by 2019. In contrast, most communities across the state saw large increases in CLASS performance. By 2019, average CLASS scores in most communities exceeded 4.80 (the 60th percentile in 2016 scores) and often reached above 5.04 (the 80th percentile in 2016). Figure 5 thus highlights substantial geographic variability both in average CLASS scores and improvement.

Table 2 examines whether this variability was associated with community characteristics. Overall, initial program growth was slower in higher-risk communities but trends stabilized over time. Programs in quartile 1, which are those in the least "at-risk" communities, improved in each year of the study by a total of .46 points, and

reached an average score of 5.26 by 2019. Eighty-eight percent of these programs were rated Proficient or above in 2019. In more disadvantaged communities, particularly in quartile 4 (the most "at-risk" communities), programs demonstrated very little improvement over the first two years of the study (between 2016 and 2017). Figure 6 highlights initial differences in trends (between 2016 and 2017) across programs in quartile 1 and quartile 4. By 2019, programs in quartiles 3 and 4 had improved their average scores by .52 points and .36 points, respectively, and rates of proficiency by 26 and 25 points. Nonetheless, by the end of the study period, programs in the bottom two quartiles of risk still earned lower ratings and were less likely to be rated Proficient or above than programs in the lowest-risk communities (quartile 1).

Discussion

Over the past two decades, policymakers have made considerable investments in improving the quality of ECE programs. Unfortunately, there has generally not been data to assess ECE quality at scale, let alone whether quality is actually improving over time. This is a major shortcoming given the emphasis on and resource commitment to quality improvement. A key goal of this study was to highlight how QRIS data could play an important role in filling that gap.

Louisiana's Act 3 sought to improve ECE quality and reduce disparities across programs and communities. To do this, LDOE unified standards for all publicly funded programs in the state by requiring universal participation in its QRIS focused on teacher-child interactions. As a result of Louisiana's emphasis on measuring and improving CLASS scores, the state now has unusually rich data which offers a unique opportunity to explore systemwide program quality and improvement in ECE. In particular, no prior

studies have leveraged detailed quality information from *all* publicly-funded ECE programs in the state for even a single year, and none have tracked statewide quality over time.

Contextualizing Program Quality and Improvement in Louisiana

Louisiana's CLASS scores in 2016 align with findings from previous studies' depictions of variation in quality across contexts. Specifically, quality was lowest in child care programs and in programs located within more disadvantaged communities (quartiles 3 and 4). Most of the available studies of ECE process quality, however, have focused on single sectors (e.g., pre-K), so these results add to our understanding of how measures of process quality vary across sectors and communities. For example, Bassok and Galdo (2015) found that average CLASS domain scores in Georgia's pre-K programs were between .13-.25 points lower in high-poverty ZIP codes than in low-poverty ZIP Codes. We find the largest gaps in initial quality were across sectors, as average overall scores were .86 higher in pre-K programs than child care programs. We also find that average overall CLASS scores in the least "at-risk" communities were .10 and .22 points higher than average scores for quartiles 3 and 4, respectively. These disparities may reflect a relative lack of resources to support quality improvement or, in the case of child care programs, a relative lack of exposure to instructional support and experience with evaluation tools like the CLASS at the outset of Act 3 reforms.

In the four years following the introduction of Louisiana's QRIS, program quality improved significantly across the state (+.43 points, or .61SD on the CLASS). Data on systemwide quality improvement are rare in ECE, but a report examining quality trends in Head Start found no significant improvements in the Instructional Support,

Emotional Support, or Classroom Organization domains of the Pre-K CLASS between 2009 and 2014 (Aikens et al., 2016). Results from the current study, which capture improvement trends across the entire system of publicly funded ECE programs in Louisiana, highlight larger quality increases across multiple sectors in a shorter period of time.

Louisiana's quality improvement trends also varied in magnitude across contexts, but were present across both sectors and communities. The most notable trends in improvement were among child care programs. After four years, average CLASS scores in child care programs increased by .57 points to 4.87. This increase was far larger than those for Head Start (+.37 to 5.01) and pre-K programs (+.27 to 5.43). The gap in proficiency between child care and pre-K programs closed by more than half over this period (from 48 percentage points in 2016 to 22 in 2019). Moreover, the percentage of child care programs meeting the proficiency standard increased by over 75% between 2016 and 2019 (from 40% to 73%). While child care and Head Start programs showed greater growth than pre-K programs, it is worth nothing that the percentage of pre-K programs that received Excellent ratings actually tripled between 2016 and 2019 (from 2% to 7%). Therefore, while small in magnitude relative to the other sectors, improvement trends in pre-K programs were nonetheless visible.

Louisiana is among America's poorest states and many of its communities rank among the poorest in the country. As high-quality early childhood experiences are critical for development, particularly for economically at-risk children, policymakers have sought to ensure access to high quality programs at scale. However, available evidence suggests that the quality of programs serving low-income children is often quite low

(Bassok & Galdo, 2015; Magnuson et al., 2004; Phillips et al., 2017). Similar differences in improvement trends could signal additional barriers to improving program quality in the communities where the benefits of high-quality care may be greatest.

We find that program quality improved across all of Louisiana's communities, but trends varied, particularly in the early years. Specifically, despite virtually no improvement between 2016 and 2017, CLASS scores in the most disadvantaged communities (quartile 4) improved by .36 points in the final two years of the study. By comparison, scores in quartiles 1 and 2 improved by .46 and .41 points over the entire four-year period, respectively. The finding that programs in the most "at-risk" communities eventually improved is encouraging, but they nonetheless lagged behind by the end of the study.

It is difficult to know exactly how much these increase in CLASS scores may matter for children's learning, which is the ultimate aim of Louisiana's Act 3 reform To contextualize findings from this study and understand in relative terms the levels of quality demonstrated across Louisiana, we compare our results with results from studies of programs nationally regarded for quality, including Boston and Tulsa pre-K (Bassok & Galdo, 2016; Burchinal et al., 2010; Johnson et al., 2016; Weiland et al., 2013). A full comparison of scores, overall and by domain, is presented in Appendix Table A3. In general, scores in Louisiana were higher than those in other programs and the gap in scores was particularly large in the Instructional Support domain. Boston's pre-K program was the lone exception, as Weiland and colleagues reported Instructional Support scores that were over one half point higher than those reported in Louisiana in 2019. However, Instructional Support scores in Louisiana were highest among pre-K

programs (4.21 in 2019), so it is perhaps not surprising that scores reported from Boston's pre-K program were higher than averages from Louisiana's entire ECE system. Aside from Boston, however, the gap between Louisiana's scores and those in other nationally recognized programs was quite large. While Louisiana's growth in CLASS scores occurred within a statewide reform context focused specifically on the CLASS, it is nonetheless reasonable to question the validity of the scores captured across Louisiana's ECE system.

Unfortunately, we do not have data that can address this question; that is, we cannot compare local raters to other raters across the four years of data collection. We thus raise three points for consideration. First, all local CLASS observers are required to be certified on the CLASS using the standard definitions and qualifications for CLASS nationally. Second, LDOE contracts with outside observers to randomly observe half of Louisiana's ECE classrooms and compare those observation scores to those conducted by local CLASS observers. When there are discrepancies, third party scores replace the local ratings; to the extent that replacement occurred, we used those scores. Finally, previous research in Louisiana found a correlation between local raters and independent, research-trained raters (Vitiello et al., 2018), though this correlation was modest (r=.36), and this study was conducted prior to the full implementation of accountability, which may have inflated scores. Louisiana is currently undertaking a second validity study to look for the possibility of CLASS score inflation. Future research should continue to address questions of validity in large-scale roll outs of tools initially designed for research and consider other possible tools for measuring process quality in ECE classrooms. Louisiana's decision to use local raters both created buy-in from communities and made

implementation of such a large-scale observational system possible; however, there may be tradeoffs with the quality of scores, and future research should continue to address this problem both in Louisiana and with respect to other policy applications of such measures.

Implications for Other ECE Contexts

These improvements occurred in the context of Louisiana's QRIS, which was unique in two important ways. First, LDOE required participation in its QRIS from all publicly funded programs. This marks a meaningful distinction from ECE reforms in other states, where QRIS participation is often voluntary. Because LDOE links QRIS ratings to accountability policy and various improvement supports, programs across sectors and communities have immediate incentives to participate in the Act 3 reform efforts and improve on the CLASS. Because Louisiana collects annual program quality data from every publicly funded classroom in the state, LDOE can use data from its QRIS to systematically track quality improvement, target low-performing programs with necessary supports, and implement new strategies to promote further improvement.

Louisiana's QRIS was also unique in its singular focus on the CLASS. Louisiana's QRIS is the only single-item QRIS, and LDOE expended considerable effort to build support for it. Prior to launching the QRIS, LDOE leadership traveled throughout the state to explain the reform and the CLASS tool. LDOE conducted a QRIS "pilot year" to ensure a smoother statewide roll out. LDOE has also provided consistent messaging around the importance of teacher-child interactions and spent considerable resources subsidizing CLASS trainings and professional development to build local capacity around the CLASS. Notably, recent survey data from Louisiana suggests that ECE program directors and teachers feel that they understand and value the CLASS, and that

Louisiana's focus on the CLASS is improving ECE quality (Bassok et al., 2019). LDOE's unique QRIS buttressed several state-led initiatives designed to improve the quality of teacher-child interactions as measured by the CLASS. These initiatives created a reform environment focused on the CLASS and provided real supports and incentives for improvement.

Louisiana's significant growth on the CLASS during the first four years of statewide implementation of Act 3 may reflect both a) the systemwide participation requirement, and b) the alignment between its reform goals and the initiatives to support those goals. Louisiana can leverage its statewide participation requirement to assess *systemwide* quality improvement and provide programs across Louisiana with aligned supports through LDOE-led initiatives. States without such a requirement struggle to determine whether quality is improving at scale. These states may also struggle to identify publicly funded programs in need of support and ensure programs across sectors and communities are receiving resources to improve quality. Policymakers considering similar ECE reforms that scale across contexts should ask whether requiring systemwide participation in their QRIS and broader reform policies may best align with their improvement goals. In addition, policymakers considering statewide reforms of their ECE systems should take note of the coordination between Louisiana's reform goal and the various initiatives it implemented to support that goal.

While it cannot be determined from this study how or to what degree improvement in program quality was linked to any particular initiative in Louisiana, the degree to which this context differed from "business as usual" for all programs, and particularly child care programs, where quality oversight was previously minimal, is

notable. The introduction of new quality standards and quality supports in child care settings may have led to their particularly rapid improvement, and may suggest that the provision of tailored supports in the context of accountability is essential for supporting long-term growth.

Our analyses exploring variation in improvement across communities also suggest that building infrastructure for improvement may be essential. We found that programs in the most disadvantaged communities did not improve at all between the first and second years of QRIS implementation while programs in quartile 1, the lowest-risk communities, improved rapidly during this period. One possible reason for this difference in improvement trends is that programs in the most disadvantaged communities may have been the most financially constrained and thus unable to provide many of the resources later provided by LDOE. Another hypothesis, however, is that programs in the most disadvantaged communities, which demonstrated lower CLASS ratings in the first year of the study than programs in the least disadvantaged communities, may have been reluctant to buy-in to the CLASS-based reform during the early years of Act 3 implementation. As supports and incentives took effect locally, these programs could have embraced Act 3, leading to the long-term growth observed across communities.

Conclusion

This paper is the first to describe levels and trends in systemwide ECE quality in the context of a substantial early childhood reform. We find that not only is quality increasing on average, but that improvement trends reduced disparities in quality across sectors. Additionally, this paper demonstrates that initial differences in quality improvement rates across communities, which may be linked to available resources, may

level out in the longer term. While it is not within the design of this paper to estimate the effects of any one of LDOE's improvement initiatives, or of each of them together, we speculate that its efforts to systematically measure program quality and its singular focus on improving teacher-child interactions across its various reform initiatives may have been important. As policymakers look to unify ECE systems and improve quality, it will be necessary to consider whether universal participation requirements may be necessary to measure and elevate quality at scale. It will also be important to align resources and incentives with both overall reform goals and the diverse needs of programs and communities.

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Tables and Figures

Table 1.

Statewide and Sector-Level CLASS Scores and Proficiency by Year

	2016	2017	2018	2019	Change
Statewide (N=1,871)					
Average Score	4.70	4.84	5.00	5.13	+0.43
	(0.71)	(0.68)	(0.68)	(0.59)	
% Proficient or Above	62%	70%	77%	85%	+23%
# Proficient or Above	1025	1043	1225	1301	+276
# Total Programs	1640	1500	1590	1530	-110
Child Care (N=867)					
Average Score	4.30	4.50	4.64	4.87	+0.57
	(0.65)	(0.63)	(0.65)	(0.58)	
% Proficient or Above	40%	51%	59%	73%	+33%
# Proficient or Above	294	337	416	473	+179
Head Start (N=253)					
Average Score	4.64	4.72	4.89	5.01	+0.37
	(0.50)	(0.53)	(0.46)	(0.39)	
% Proficient or Above	61%	67%	80%	93%	+32%
# Proficient or Above	134	128	157	185	+51
Pre-K (N=751)					
Average Score	5.16	5.21	5.39	5.43	+0.27
	(0.54)	(0.57)	(0.53)	(0.51)	
% Proficient or Above	88%	88%	94%	95%	+7%
# Proficient or Above	597	578	652	643	+46

Note: N=1,871 total sites represented. Standard deviations in parentheses.

Table 2.

Community Comparisons of CLASS Scores and Proficiency by Year

	2016	2017	2018	2019	Change
Quartile 1, Low Risk (N=381)					
Average Score	4.80	5.08	5.19	5.26	+0.46
	(0.76)	(0.67)	(0.67)	(0.64)	
% Proficient or Above	65	80	84	88	+23%
# Proficient or Above	216	243	264	286	+70
Quartile 2 (N=670)					
Average Score	4.71	4.86	4.99	5.12	+0.41
	(0.72)	(0.67)	(0.67)	(0.60)	
% Proficient or Above	65	71	76	85	+23%
# Proficient or Above	388	377	443	466	+78
Quartile 3 (N=398)					
Average Score	4.58	4.71	4.95	5.10	+0.52
	(0.67)	(0.68)	(0.65)	(0.55)	
% Proficient or Above	58	64	77	84	+26%
# Proficient or Above	195	204	256	256	+41
Quartile 4, High Risk (N=422)					
Average Score	4.70	4.71	4.89	5.06	+0.36
	(0.66)	(0.66)	(0.69)	(0.55)	
% Proficient or Above	60	63	73	85	+25%
# Proficient or Above	226	219	262	293	+67

Note: N=1,871 total programs. Standard deviations in parentheses.

Figure 1.

Distributions of 2016 CLASS Scores Across Sectors

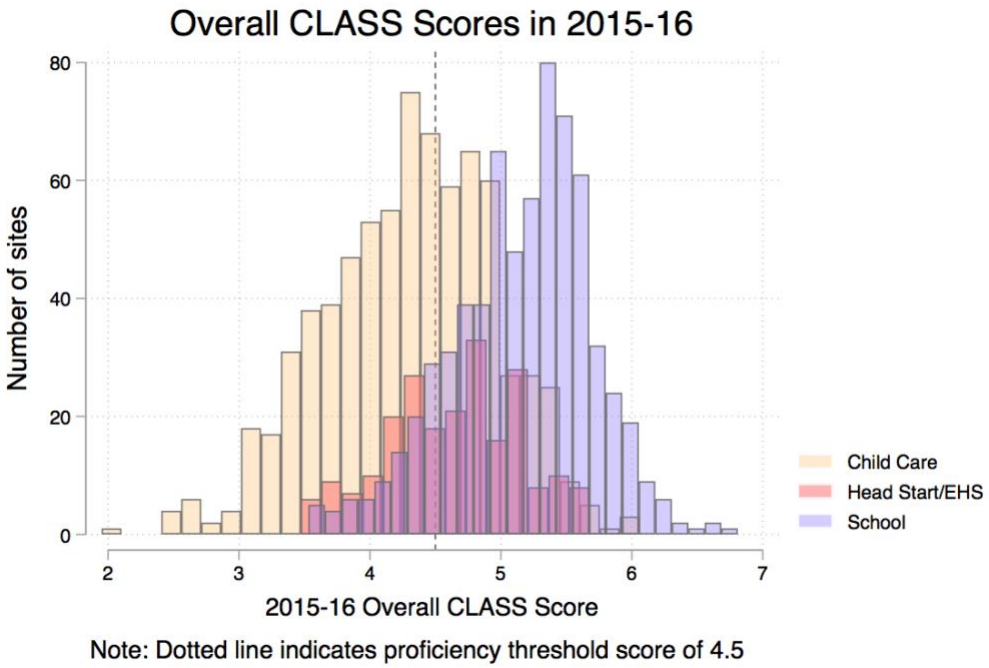


Figure 2.

Statewide Trends in Average CLASS Scores, 2016 to 2019

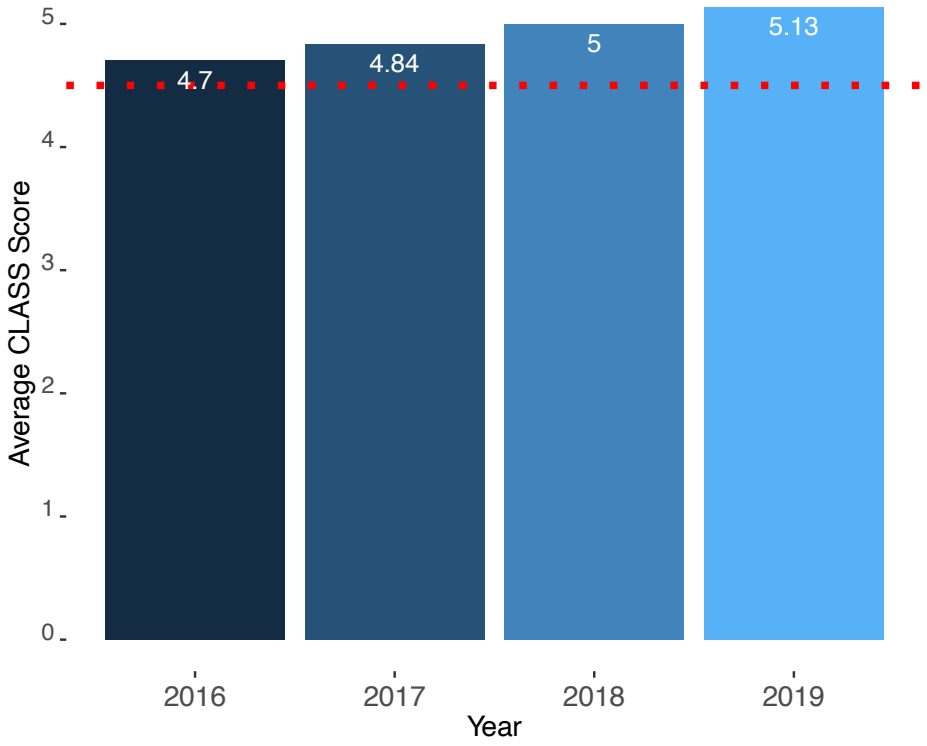


Figure 3.

Statewide Trends in CLASS Proficiency, 2016 to 2019

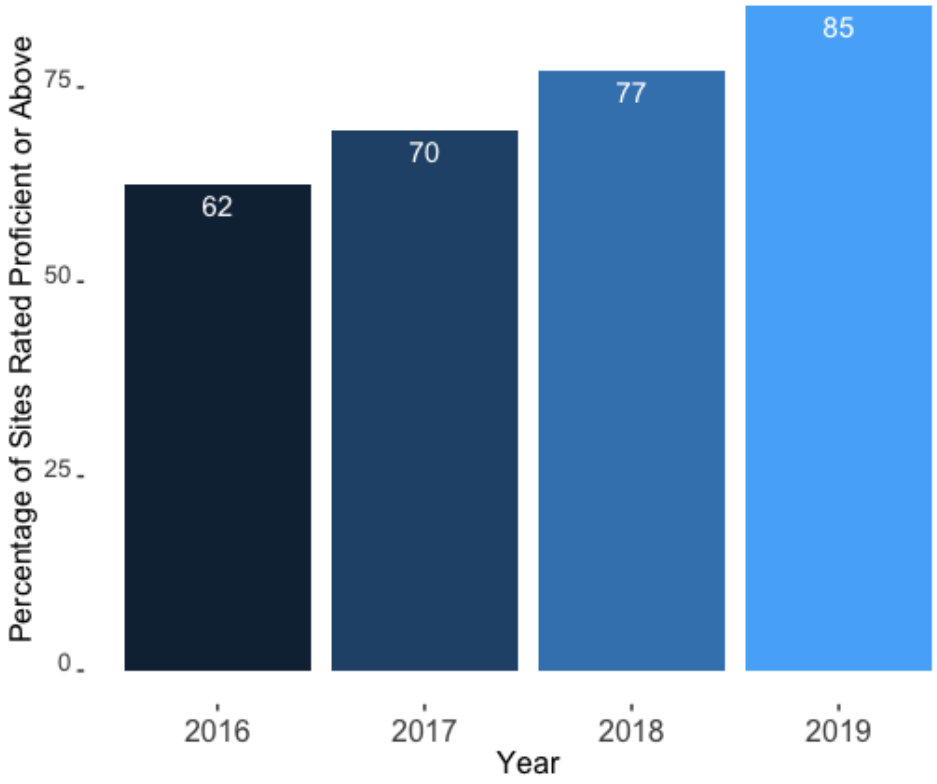
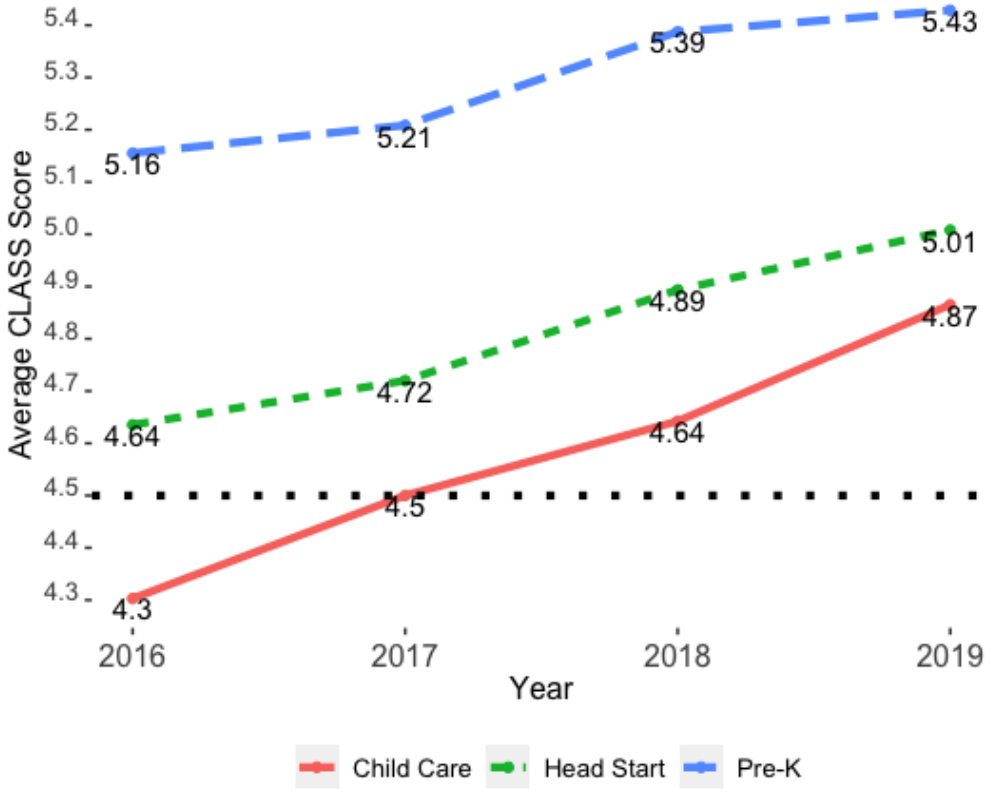


Figure 4.

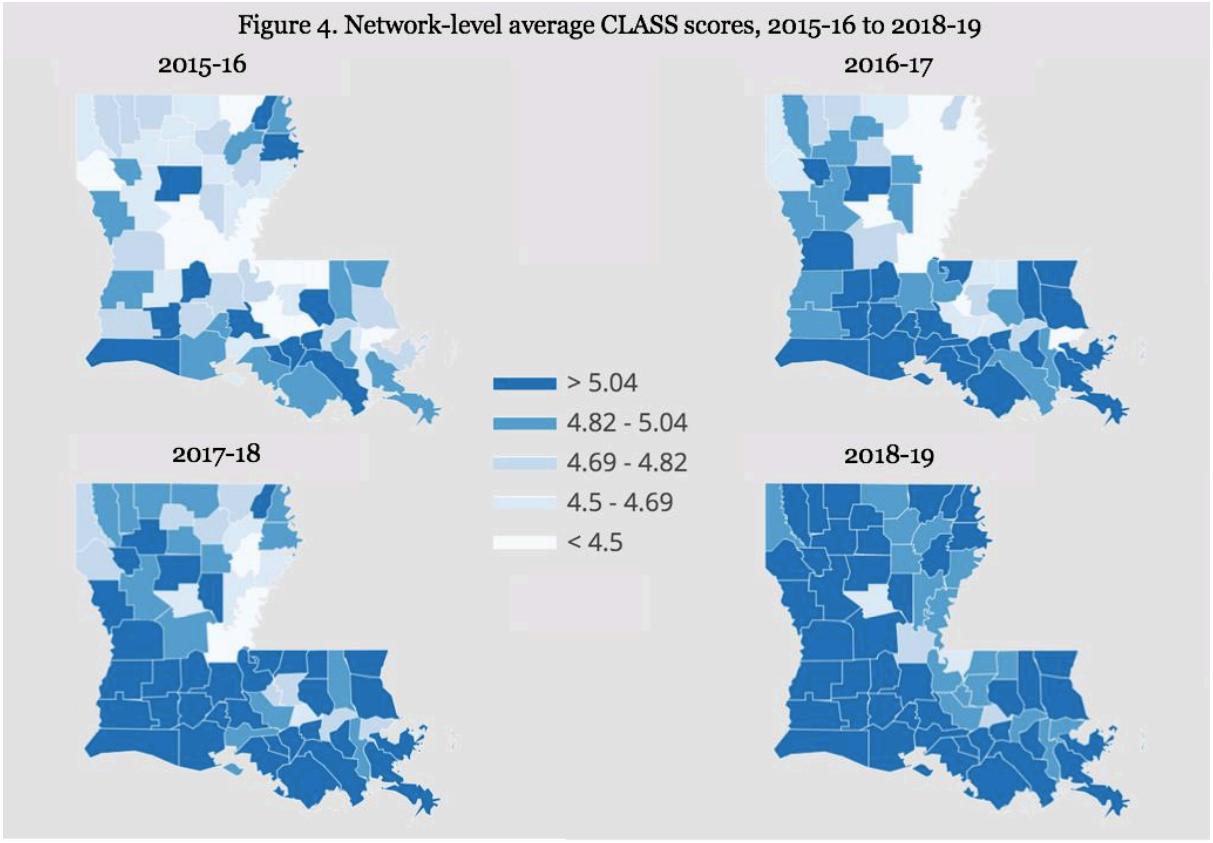
CLASS Trends by Sector, 2016 to 2019



Note: Horizontal line indicates 4.5-point threshold for proficiency.

Figure 5.

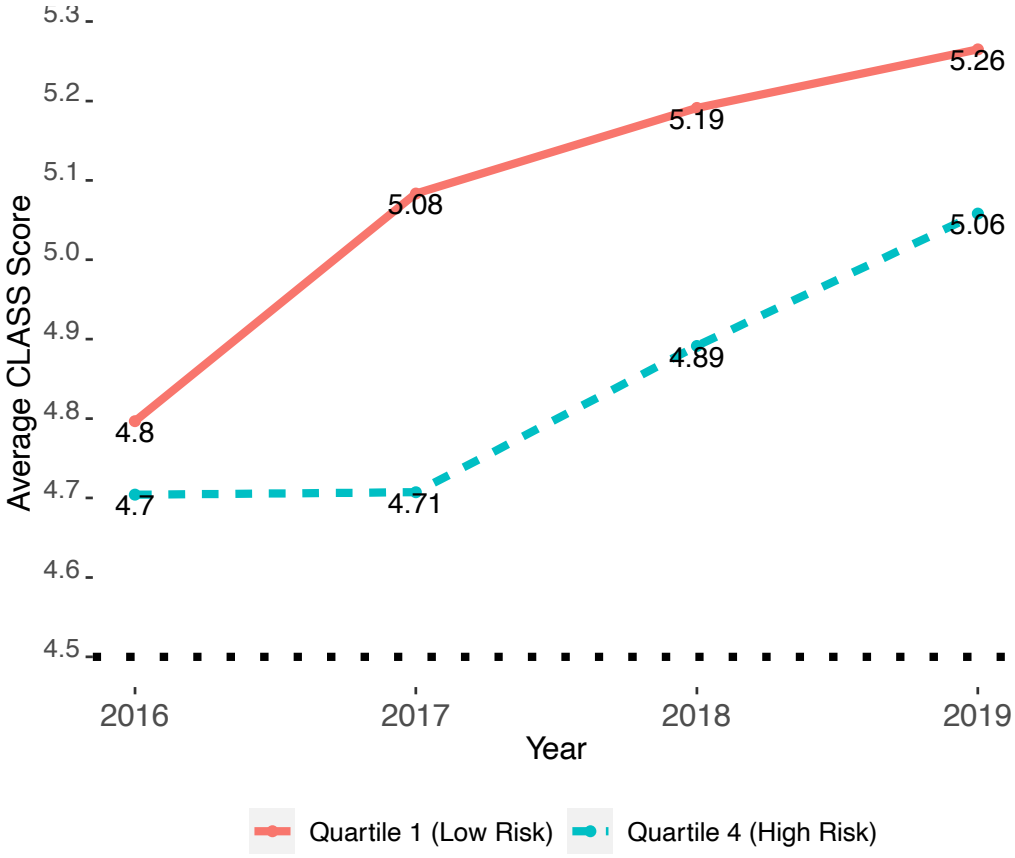
CLASS Scores Across Communities



Note: Color gradients indicate network-level quintiles of 2016 CLASS score distribution.

Figure 6.

CLASS Trends by Community Risk Quartile, 2016 to 2019



Note: Horizontal line indicates 4.5-point threshold for proficiency.

Appendix Table A1.

Statewide CLASS Trends, by Domain

	Scores					% Proficient or Above				
	2016	*2017*	*2018*	*2019*	*Change*	*2016*	*2017*	*2018*	*2019*	*Change*
Pre-K Domains										
Instructional Support	3.39	3.52	3.73	3.83	+0.44	13	17	22	23	+10
	(0.95)	(0.95)	(0.95)	(0.88)						
Emotional Support	5.57	5.68	5.81	5.93	+0.36	93	96	97	98	+5
	(0.69)	(0.62)	(0.61)	(0.54)						
Classroom Organization	5.28	5.44	5.57	5.68	+0.40	85	90	93	95	+10
Toddler Domains										
Engaged Support for Learning	3.30	3.46	3.64	3.92	+0.62	9	12	18	25	+16
	(0.84)	(0.85)	(0.86)	(0.78)						
Emotional and Behavioral Support	5.07	5.28	5.39	5.60	+0.53	80	88	89	96	+16
	(0.73)	(0.66)	(0.69)	(0.60)						

Note: 1,871 total sites observed across years. Standard deviations are presented in parentheses.

Appendix Table A2.

Statewide CLASS Trends and Within-Program Growth by Year

	CLASS Score		% Proficient or Above	
Constant (2016)	4.70	4.76	62%	66%
2017	0.14	0.10	7.03	4.97
	(0.02)	(0.01)	(1.55)	(1.20)
2018	0.30	0.26	14.54	12.57
	(0.01)	(0.01)	(1.52)	(1.20)
2019	0.43	0.37	22.97	19.67
	(0.01)	(0.01)	(1.54)	(1.23)
Program FE		X		X

Note: N=1,871 programs statewide and 1,605 in "Program FE" columns. "Constant" row presents 2016 means. Standard errors in parentheses. Coefficients indicate change relative to 2016. All coefficients are statistically significantly larger than 2016 (constant) at the .001 level.

Appendix Table A3.

Comparisons of CLASS Scores Across Studies, by Domain

						Louisiana	
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
Instructional Support	2.06	2.04	4.30	3.26	2.40	3.39	3.83
Emotional Support	5.53	5.49	5.63	-	5.40	5.57	5.93
Classroom Organization	5.17	-	5.10	-	4.80	5.28	5.68
Overall	4.25	-	5.01	-	4.20	4.70	5.13

Note: Scores reflect domain-level averages from several large studies using data from the CLASS. Column (1) presents pre-K data from Georgia (Bassok & Galdo, 2015); Column (2) presents pre-K data from the National Center for Early Development and Learning's (NCEDL) Multi-State Study of Pre-Kindergarten (Multi-State Study) and the NCEDL–NIEER State-Wide Early Education Programs Study (Burchinal et al., 2010); Column (3) presents pre-K data from Boston (Weiland et al., 2013); Column (4) presents pre-K data from Oklahoma (Johnson et al., 2016). Column (5) presents Head Start data from the 2014 Head Start Family and Child Experiences Survey (FACES) (Aikens et al., 2016); Columns (6) and (7) reflect 2016 and 2019 scores from this study.

The Role of Local Leadership in ECE Quality Improvement
Evidence from Louisiana

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Abstract

Most discussion about improving the quality of early childhood education focuses either on teachers who play the most direct role shaping the quality of young children's experiences, or on the state and federal policies, budgets, and regulations, that help or hinder efforts to improve those experiences. The role of local ECE leaders is comparatively understudied. However, local ECE leaders are increasingly playing a critical role in efforts to improve ECE quality at scale. This study examines the role of local ECE leadership in Louisiana, a state which recently implemented an ambitious quality improvement reform, and created "community networks" to administer it locally. Results indicate that network leaders support Louisiana's accountability system and have used various strategies to promote quality in their communities, yet often struggle to provide sufficient resources and build buy-in across their community's diverse programs.

Early learning experiences are critical for children's development, and high-quality early care and education (ECE) programs can positively impact low-income children's short and long-term outcomes (Phillips et al., 2017; Yoshikawa et al., 2013). However, children growing up in low-income contexts are less likely to access high-quality programs than their higher-income peers (Bassok & Galdo, 2015; Valentino, 2018). Publicly-funded ECE options are provided through separate state and federal programs (e.g. state pre-kindergarten (pre-K) programs; Head Start, and subsidized child care), and most efforts to *improve* ECE have come directly through these sectors (e.g. increased education requirements for Head Start teachers; heightened Federal safety regulations for subsidized child care). The result is a fragmented ECE system in which each sector receives different levels of public funding, responds to different regulations, and operates separately from the others. This fragmentation creates disparities in children's ECE experiences and complicates efforts to improve program quality across the entire system.

In the past decade, there has been growing recognition that improving ECE quality at scale will require greater coordination and cohesion across sectors. As one example, in recent years Quality Rating and Improvement Systems (QRIS), which are accountability systems that measure and create incentives for improvement (Bipartisan Policy Center, 2018; First Five Years Fund, 2019; Kaplan & Mead, 2017), have spread rapidly as a strategy to build cohesion across the diverse ECE landscape through common definitions of quality and supports for improvement.

States have also begun reforming their approach to ECE governance, for instance by creating single agencies to administer all ECE programs or by encouraging greater

coordination at the local level to foster ECE system-building (Division of Early Childhood, 2020; Regenstein & Lipper, 2013). Similar to superintendents in the K-12 context, local ECE leaders may play a critical role in ensuring federal and state policies translate into real changes in the programs where children are served. To date however, there has been very little research on the role of local leaders in supporting system building and quality improvement efforts in ECE.

To address this gap, this study uses new survey data from Louisiana to explore the role of local leadership in large scale ECE improvement efforts. In 2012, Louisiana passed *The Early Childhood Education Act*, or Act 3, which aimed to ensure school readiness statewide. To build greater cohesion across Louisiana's fragmented ECE system, the state required all publicly-funded ECE programs in the state, irrespective of sector, to participate in a QRIS. The Louisiana Department of Education (LDOE) was the primary architect of this ECE reform effort, designing both the QRIS and a set of closely-aligned quality improvement initiatives. However, the work of actually implementing the reforms was delegated to newly-created "community networks." Community networks are local networks of programs across each sector that are unified by common standards of program quality as well as an ultimate goal of increasing access to high-quality ECE programs for local families. Leaders of these networks, which typically operate at the parish, or county, level, were charged with building coordinated, cross-sector ECE systems, providing improvement support to local programs, and implementing the state's QRIS in their communities. These leaders, called "lead agencies," were given considerable flexibility and discretion in implementing the state's quality improvement policies (Louisiana Department of Education, 2015).

In the years since Act 3 was implemented, ECE program quality across Louisiana improved steadily (Bassok, Magouirk, & Markowitz, in progress). By 2019, four years into statewide implementation of Act 3, 85% of programs earned "Proficient" or "Excellent" ratings compared to 62% in 2016 (the first year of implementation). Program quality improved across most of the state's community networks, and across each sector operating within these networks. However, improvement trends varied significantly across networks, as some improved dramatically over time while program quality in a few networks actually declined. While several factors may explain this variation, local ECE leaders and their approaches to quality improvement may play an important role.

Understanding the experiences and perspectives of Louisiana's community network leaders in implementing the state's reform provides a unique opportunity to examine the role of local leadership in shaping ECE program improvement. Using data from a survey of nearly all of the state's community network leaders, I examine (1) the extent to which network leaders support the state's new QRIS, (2) the strategies they implemented to support local quality improvement, (3) the challenges they perceive in leading cross-sector improvement efforts, and (4) the degree to which they report buy-in for the QRIS among local programs. As policymakers consider ECE governance reforms and empower local systems to lead quality improvement efforts, results from this study will provide useful insights by identifying both the strategies they implemented to support local programs and challenges leaders faced in building cross-sector networks.

Background

Local governance systems are relatively new in the ECE context. Historically, publicly-funded ECE operated primarily through three independent "sectors," including

state or local pre-K, Head Start, and subsidized child care. These sectors adhered to different standards and typically operated without any formal connection or coordination with one another. The lack of a centralized means of governing across sectors may have negative implications for children and families. It is difficult for parents to understand their options across sectors or to find and access high-quality care (Bassok et al., 2018). The quality of care children experience differs across sectors, as child care programs operate under less rigid regulations and receive significantly less public funding per child than either Head Start or pre-K programs (Barnett & Friedman-Krauss, 2016; Friedman-Krauss et al., 2019; Louisiana Department of Education, 2019; U.S. Department of Health and Human Services, 2020). Finally, it is difficult for policymakers to improve program quality across sectors (Regenstein & Lipper, 2013). A more unified governance structure may provide a framework for comprehensive, coordinated, and aligned services that could improve program quality for all children, across sectors (Goffin et al., 2011).

For this reason, some states are now unifying ECE governance across sectors and building local systems to lead quality improvement efforts. For example, several states have consolidated control of all ECE sectors within their departments of education or created new government offices to lead all statewide ECE operations (Stavely, 2020; Regenstein & Lipper, 2013). Others have built regional or local structures to lead local reforms, or to implement and/or monitor state-level accountability policies. For example, Maryland used Race to the Top -Early Learning Challenge funding to develop local early childhood advisory councils that advocate for individual communities' ECE agendas before the state (Division of Early Childhood, 2020). In Michigan, local parents and educators lead county-level "Great Start Parent Coalitions" that advance local action

plans to address specific ECE priorities (Michigan Department of Education, 2020). Finally, North Carolina established Transformation Zones to lead local ECE initiatives in several areas, particularly rural, low-income communities, where resources and infrastructure for supporting quality improvement were low (Regenstein & Lipper, 2013; U.S. Department of Education, 2011).

These initiatives indicate that policymakers acknowledge the potentially important role of local leadership in both implementing policy and addressing local needs. There is not yet a research base about these local efforts in ECE, so we know little about the ways in which local leaders address the challenges they face or the ways they foster quality improvement across ECE sectors. However, K-12 school districts provide a useful analogue. A large body of research indicates districts play a meaningful role bridging between state policy efforts and local stakeholders. They balance state policy directives with local school and stakeholder needs (Marsh, 2002; Massell & Goertz, 2002; Tyack, 2002), deciding whether and how to lead specific reforms to best serve their communities (Goertz, 2000; Spillane, 1996). Decades of research suggest that effective school districts provide intensive instructional supports, allocate their resources to target local disparities, and build collaborative relationships with teachers and school leaders (Anderson & Young, 2018; Leithwood, 2010). Many of the practices of effective districts may also promote quality improvement in local ECE systems.

Strategies and Challenges in Leading Cross-Sector Systems

While the K-12 literature highlights the importance of local governance in driving system reform, ECE leaders must address a unique challenge: the fragmentation of the ECE landscape. The three sectors of center-based ECE programs have historically

operated independently of one another, are governed by different regulations, receive different levels of funding, and, on average, offer different levels of quality (Bassok et al., 2016; Henry et al., 2006).

Local ECE leaders must account for these differences when they design local quality improvement efforts, provide resources, and attempt to build buy-in for reforms across sectors. For example, subsidized child care programs receive far less public funding than Head Start and pre-K programs and typically provide less professional development than either Head Start or pre-K settings (Barnett & Friedman-Krauss, 2016; Early Childhood Learning and Knowledge Center, 2019; Friedman-Krauss et al., 2019). As a result, child care programs may be less prepared for statewide accountability policies that hold them to the same standards as other, more well-resourced programs. Without additional resources to support their improvement efforts, child care programs may perceive accountability policies as unfair and be less likely to buy into them. If leaders are unable to provide needed resources, they may struggle to gain buy-in for state reform efforts, especially among the most under-resourced programs struggling to improve. In turn, varying levels of buy-in may lead to inequitable improvement trends that entrench disparities in children's early experiences.

The local leaders charged with faciliating quality improvement efforts may significantly shape how ECE programs respond to state reforms. It is therefore useful to understand their experiences, the challenges they face, and their success in building cross-sector buy-in. This study provides some of the first evidence on these topics using data from Louisiana.

Improving ECE Systemwide in Louisiana

In 2012, Louisiana implemented Act 3, or the *Early Childhood Education Act* (Louisiana Early Childhood Act, 2012). Act 3 marked a major shift in Louisiana's ECE policy by consolidating all program governance and accountability within the Louisiana Department of Education (LDOE). A major component of Louisiana's reform was the creation of community networks, which were responsible for locally implementing a unique QRIS across each of Louisiana's publicly funded programs and unifying the various sectors into cohesive local ECE systems. According to LDOE, community networks would provide, at the local level, a "collaborative leadership structure" that centralized support and promoted improvement across programs in a manner similar to school districts in K-12 (Louisiana Department of Education, 2015). Each community network, which typically operated at the parish- (or county-) level, selected a "lead agency," to coordinate all network activities. These lead agencies were typically, but not always, the local K-12 school system. In several networks, the individual leaders within these lead agencies oversaw their school systems' pre-K programs. LDOE offered flexibility to network leaders in their efforts to build cohesive local systems, but encouraged (and at times mandated) strategies ranging from cross-sector strategic planning to professional development on the state's new QRIS.

A unique feature of Louisiana's accountability system is that programs' QRIS ratings were based solely on the observed quality of teacher- child interactions as measured using the Classroom Assessment Scoring System (CLASS, Pianta et al., 2008), a widely validated observational tool. The CLASS is used in 23 states' QRIS, and is consistently, though modestly, associated with children's outcomes across many studies (Burchinal, 2018; Hamre, 2014; Vitiello et al., 2018). As part of Louisiana's QRIS, all

classrooms serving toddlers and preschoolers in publicly-funded ECE programs statewide are observed at least twice a year.

Not only are teacher-child interactions, as measured by the CLASS, the focus of Louisiana's quality *measurement,* but they are also explicitly the focus of a comprehensive set of policies and improvement initiatives. These include, for instance: initial CLASS training for all lead teachers; targeted supports for programs struggling on the CLASS; tax incentives linked to the CLASS; and a required teaching credential focused on teacher-child interactions for all child care lead teachers (Bassok & Markowitz, 2020; Lieberman, 2018).

Implementing Louisiana's unique QRIS, which required extensive in-class observations, posed significant logistical and strategic challenges for the newly created community networks. One challenge was that sectors differed dramatically in their familiarity with the CLASS, in particular, and with observational assessments of quality more broadly. Even prior to Act 3, Head Start programs were already required to use CLASS observation scores for their federally mandated performance evaluations, and were therefore somewhat familiar with the tool, though they were not previously subject to the same frequency or scope of CLASS observations that they experienced after Act 3 (twice per year in each classroom) (Early Childhood Learning and Knowledge Center, 2019). Although the use of the CLASS was not common in Louisiana's pre-K classrooms, pre-K teachers and school principals were already accustomed to regular, observation-based evaluation, as they had been evaluated using the state's K-12 evaluation tool, Compass. Child care programs were the least prepared for the heightened focus on classroom observations and the new emphasis on teacher-child interactions.

Prior to Act 3, accountability for child care programs operated primarily through licensing checks focused on compliance with regulations (e.g. group size, adult-child ratios, or children's safety), with little systematic focus on the practices of teachers.

These differences in preparedness for both accountability in general and for the CLASS in particular created diverse needs across sectors. While all programs required preparation for the new QRIS, needs were more pronounced among child care programs who oftentimes lacked the resources available to Head Start and pre-K programs to hold ongoing training workshops on the CLASS, provide teachers with instructional coaches, or invest in curriculum training.

I hypothesize that for community networks to effectively connect Louisiana's Act 3 reform to quality improvement within individual programs, four conditions needed to hold. First, network leaders themselves needed to buy in to the CLASS. Aside from implementing the QRIS, network leaders were responsible for leading local improvement efforts as well as informing programs about state-led initiatives related to the CLASS. If they did not value the CLASS as a measure of program quality, they may have de-emphasized or even undermined it in their networks.

Second, network leaders needed to provide supports to local programs that were well-aligned with the CLASS. Particularly in under-resourced environments, these supports may have been programs' primary means of CLASS-aligned professional development or training. Third, network leaders needed to address disparities in both resources and preparedness across sectors. Otherwise, they would be unsuccessful in their mission to improve program quality at scale. Finally, network leaders needed to build buy-in among local programs. Quality improves within individual programs and without

investment in the CLASS tool, programs may not have engaged with Louisiana's reform and thus struggled to improve on the CLASS. This paper examines the degree to which each of these four conditions held.

Louisiana's recent reform provides a unique opportunity to better understand the experiences of local ECE leaders, and to assess the extent to which these four conditions held within one states' unique reform. In this study, I address four questions:

1. To what extent do network leaders themselves report buy-in for the CLASS and QRIS?
2. To what extent are network leaders implementing strategies to support quality improvement?
3. What challenges do network leaders face in their efforts improve local program quality, particularly across sectors?
4. To what degree do network leaders report buy-in for the CLASS across programs in their communities, particularly across sectors?

Method

In September of 2019, as part of the Study of Early Education-Louisiana (SEE-LA), I invited all 64 network leaders to participate in a network leader survey as part of an ongoing research-practice partnership with LDOE. LDOE conducts regional network leader meetings throughout the year, and all network leaders are expected to attend. I traveled to five such meetings to administer surveys. At the conclusion of the meetings, I introduced the network leader survey to all network leaders in attendance. I provided informed consent agreements and expressed that survey participation was wholly voluntary. I offered participants the option to complete the survey online or on paper and

offered a $25 gift card as a token of appreciation for their time. Network leaders who did not attend or complete the survey during the meeting received a follow-up via email. Surveys were generally completed in 30 minutes.

Network leaders were asked to report on their educational backgrounds, professional experiences, and their current roles and responsibilities. They were also asked to report on their perceptions of CLASS and the state's accountability system, the strategies they employ to facilitate program improvement in their communities, the challenges of building a cohesive cross-sector system, and their perceptions of program-level support for CLASS. They also were asked to report on their most notable challenges, successes, and whether the Act 3 reforms had improved overall program quality in their communities. The majority of the questions were administered in a Likert scale or "Yes" or "No" format, but the survey also included several open-ended response items to allow leaders to expand upon their experiences and perceptions.

Sample

Leaders of 58 networks responded to the survey, comprising 91% of all networks. Pre-K programs operated in all 58 of the sampled networks, while Head Start programs operated in 55 (95%) and child care programs operated in 52 (91%). In general, leaders from these networks were highly educated and brought considerable experience to their roles from various educational contexts. As shown in Figure 1, 92% had earned at least a Master's degree and nearly 80% had worked in a leadership role within the K-12 public school system. The average network leader had worked in ECE for 14 years and in the community network since its creation (four years). The majority of network leaders

served as leaders within their K-12 systems prior to taking on their current position (e.g., as pre-K coaches, as well as elementary teachers, supervisors, and principals).

Network Leaders' Reported Buy-In for the CLASS and Louisiana's QRIS

Network leaders responded to items about the degree to which they understand what the CLASS measures, value the CLASS as a quality measure, and trust the state's QRIS ratings using a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree." Examples of these questions include "I have a clear understanding of what the CLASS measures;" "CLASS is a good way to measure teachers' interactions with children;" Children learn more in classrooms with higher CLASS scores;" "On the whole, site ratings provide a fair and accurate summary of the quality in a site;" and "Site ratings provide a fair and accurate comparison of site quality across sectors" (for a full list of items, see the Appendix). I code responses to equal 1 if "Strongly agree" or "Agree" and 0 otherwise.

Strategies to Support Quality Improvement

Network leaders also responded to items about specific efforts to support quality improvement, including professional development, coaching, and training in a "Yes" or "No" format. Examples of these questions include "Has your network led any professional development workshop or training in the past 12 months?" "Does your network provide coaches to support teachers?" and "Does your network provide training for particular curricula?" I code responses to equal 1 if "Yes" and 0 otherwise.

Network leaders then reported about the degree to which they were able to provide the above improvement resources to meet the needs of all programs across their communities. These items were offered in a "Yes" or "No" format and asked leaders if

their networks were able to provide sufficient professional development or instructional coaching opportunities to support their teachers' needs and whether they provided instructional coaching to programs across sectors. Finally, network leaders reported on the frequency with which they offered curricular training to programs from each individual sector using a 5-point Likert scale that ranges from "Once per year/Not at all" to "Monthly."

Challenges in Supporting Quality Improvement Across Sectors

Network leaders reported on a set of items about their experiences navigating differences across program sectors using a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree." These items include: "Funding differences between public schools, Head Starts, and child care sites pose a major challenge to improving early childhood opportunities in this network;" "Differences in rules and regulations across public schools, Head Starts, and child care sites pose a major challenge to improving early childhood opportunities in this network;" "Differences in goals and vision across public schools, Head Starts, and child care sites pose a major challenge to collaborative efforts in this network;" and "Strategic planning in my network is conducted in collaboration with leaders from all site types (public school Pre-K, Head Start, and child care)." I code responses to equal 1 if "Strongly agree" or "Agree" and 0 otherwise.

Network Leaders' Perceptions of Program-Level Buy-In to the CLASS

Network leaders also responded to a series of items asking about the degree to which they believed local programs understood the CLASS, were focused on improving CLASS scores, and found the tool a useful means of improving quality. Each question used a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree."

Examples of these questions, which are included in the Appendix, include "Most early childhood leaders understand the CLASS;" "Most early childhood leaders are focused on improving CLASS scores;" and "Child care leaders view CLASS as a useful tool for improving program quality."

Open-Ended Responses

Finally, the survey posed several open-ended questions about network leaders' experiences, their roles and responsibilities, additional strategies to support quality improvement, and their networks' most significant successes and challenges. Examples of these questions include: "Are there any other strategies, not listed above, that you have used to foster quality improvements in your network?" "What do you consider your network's greatest challenge over the past four years?" and "Please describe, in your own words, how you would prioritize additional resources, if available, to improve site quality and/or access in your network." Although I did not conduct a systematic qualitative analyses of these responses, I supplement the summary of survey results with selected responses which help unpack network leaders' perceptions.

Results

Network Leaders' Buy-in for the CLASS

In Table 1, I present network leaders' reported perceptions of the CLASS and the state's QRIS. Overall, network leaders expressed near-unanimous support for the CLASS as a measure of quality. Specifically, 95% reported that they have a clear understanding of the CLASS tool and that they believe it is a good measure of the quality of a teacher's interactions with children. Ninety five percent also reported that they believe the CLASS is improving teaching practices in the network. Leaders commonly touted improvement

on the CLASS among their networks' most notable successes. For example, one noted that the network's greatest success was its "improved CLASS scores leading to more children being prepared for K [Kindergarten]." That a high number of network leaders noted improvement on the CLASS in open-ended response questions suggests substantial buy-in with the tool.

While most network leaders (83%) also reported that the ratings used in the QRIS provide a fair and accurate summary of program quality and an accurate comparison of quality across sectors, support was somewhat lower than for the CLASS instrument itself.

Network Leaders' Strategies to Support Quality Improvement

In Table 2, I present network leaders' responses to questions about the specific strategies they employed to support quality improvement in their communities: 98% reported that they had held workshops on the CLASS and 79% of network leaders indicated that they provide sufficient professional development to meet teachers' needs

Table 2 also shows that 81% of leaders reported that they provide instructional coaching to teachers in their networks; 84% of network leaders reported that they provided training for particular curricula. Open-ended responses highlighted networks' additional efforts to improve quality across programs. For example, one network leader reported that "we are working on an exemplar video library for our district so that teachers have models of effective instructional practices." Despite evidence of innovation in providing professional development opportunities, just 26% of leaders reported that there are enough instructional coaches to meet teachers' needs. When asked in open-response questions about how they would use additional resources, several leaders

explicitly mentioned that they would use such resources on additional training and coaching.

Leaders' responses indicated that many networks did not provide instructional coaching and curriculum training to all programs. For example, 62% of network leaders reported that instructional coaching was available across all sectors. Figure 2 reveals that child care programs received curriculum training less frequently than other sectors. One network leader summarized barriers in providing resources to child care programs:

> Our greatest challenge is engaging our child care center directors in the work we do. They are very limited in the time they can get away from their centers. Therefore, they often do not attend our meetings or training opportunities.

Challenges Supporting Quality Improvement Across Sectors

Table 3 highlights the extent to which differences across sectors posed a challenge for the goals of the network. Seventy one percent reported that funding differences across sectors present a major challenge to improving early childhood opportunities in their network. Fifty five percent of leaders reported that different rules and regulations pose a major challenge. Multiple leaders elaborated on these regulatory differences in open-ended responses. For example, one leader wrote, "Child care is privately owned. They struggle keeping up with CLASS …because of licensing [and] regulation." Another leader noted the various documentation processes required of child care centers as a major challenge to supporting quality improvement in those settings. About one third (34%) of network leaders reported that different goals and visions across sectors presented a meaningful challenge. Finally, 84% reported that they were able to hold cross-sector collaborative meetings for strategic planning.

Local Programs' Buy-in for the CLASS

Table 4 reports network leaders' perceptions of program-level buy-in for the CLASS. Leaders reported generally high levels of program buy-in; the vast majority believed that most ECE leaders in their networks understand the CLASS (91%) and view their CLASS ratings as fair and accurate summaries of quality (91%). However, their perceptions of buy-in for the CLASS was lower when reporting about individual sectors. Specifically, 84% reported that Head Start directors found the CLASS useful for improving site quality. This percentage was 76% for pre-K programs and 68% for child care directors. Network leaders' open-ended responses clarified these differences in reported buy-in across sectors. Specifically, several network leaders reported difficulties in gaining buy-in from child care partners. One noted the network's most meaningful challenge was "supporting new child care centers that have limited resources." Other network leaders reported that their most meaningful challenges in fostering system-wide quality improvement were related to child care programs "not wanting to follow network-LDOE required activities," or only completing "the minimum requirements" due to low buy-in.

Discussion

Many states have implemented or are considering strategies to better coordinate ECE quality improvement efforts across sectors and communities. States are increasingly empowering local leaders to implement statewide policies and address the unique needs of their communities, similar to governance models in K-12. In this study, I provide new evidence about local, cross-sector leadership practices in ECE using a unique survey of network leaders in Louisiana.

Louisiana created community networks to support quality improvement at the local level, reduce disparities across sectors, and build cohesive local systems. The reform environment in Louisiana following Act 3 provides a unique opportunity to examine local governance systems in ECE. Results from this paper can inform other states considering the role of local leadership systems in their own reforms well as the potential challenges these systems may face.

Overall, network leaders expressed very high levels of support for the CLASS as both a quality measure and an improvement mechanism. Their comfort with the CLASS may reflect LDOE's various efforts, mentioned above, to support statewide improvement on the CLASS. The alignment between each of these initiatives and the CLASS-based QRIS may have increased buy-in among network leaders and influenced the strategies they implemented in their communities. For policymakers, this finding indicates that aligning messaging and resources with statewide goals may inform and support local reform implementation.

ECE leaders reported implementing several common strategies to support local programs and reduce cross-sector disparities. For example, the vast majority of network leaders reported providing professional development on the CLASS, instructional coaching, and curriculum coaching in their communities. However, most network leaders highlighted that differences across sectors, including funding and regulatory differences, made it difficult to support quality improvement across sectors. For example, networks struggled to provide instructional coaching or curriculum training across *all* programs, and child care centers may have received less support than other sectors in some networks. In open-ended responses, multiple leaders reported that child care programs

were difficult to support due to their expansive operating hours, regulatory requirements, and high rate of teacher turnover. This finding should encourage caution among policymakers designing cross-sector leadership systems. Specifically, state and federal policies have created major differences across program sectors and navigating these differences is a major challenge for local ECE systems seeking to build cohesive, cross-sector systems. Policymakers designing similar systems should emphasize explicit strategies to navigate each sector's regulatory and logistical structures and provide necessary support.

While network leaders reported high levels of buy-in among the leaders of local programs, results also indicate variation by sectors, with the lowest levels of buy-in among child care program directors. Many network leaders specifically cited low buy-in among child care programs in open-ended responses. These differences in buy-in may reflect cross-sector differences in resources and preparedness that network leaders were not able to address. As stated previously, child care programs were likely the least prepared for the shift to Louisiana's QRIS. They also operate under different regulations and receive less support than other publicly funded programs. If network leaders were unable to reduce cross-sector resource disparities and provide child care programs with training and education on the CLASS, these programs may not have found the CLASS useful in their improvement efforts. To ensure equitable improvement trends across sectors, policymakers should consider strategies to further integrate child care programs into local systems and ensure systems' operations and services align with the operations and needs of child care programs.

The analyses of this paper indicate that network leaders generally support the CLASS, but often struggle to support programs and build buy-in in their networks. This paper does not explore why some network leaders reported these struggles or the characteristics of networks that did or did not report these difficulties. It also does not examine the link between leaders' survey responses and quality improvement trends in their networks. Multiple network-level factors may undermine leaders' efforts to support and build buy-in among local programs, particularly among the child care programs that generally lack other sources of leadership and support. These same factors may also undermine long-term quality improvement as measured by the CLASS.

First, the representation of each sector varies across Louisiana's community networks. In some networks, child care programs comprise a much smaller share of total programs than in other networks where they are more numerous than Head Start or pre-K programs. The composition of these networks may influence network leaders' work and their efforts to improve program quality across sectors. For example, if child care programs do not comprise a large share of total programs within a network, the focus and daily operations of the network leader may be more aligned with the interests of the more numerous Head start and pre-K programs. These networks may struggle to build relationships with the relatively few and isolated child care programs and thus fail to discern these programs' needs and ultimately fail to support them. Alternatively, leaders in larger networks, or those with a large share of child care programs, may struggle to build relationships across the vast landscape of child care programs and develop strategies to meet their diverse needs.

Second, most network leaders in Louisiana already work within local public school districts. Their daily operations most likely align with the work of public schools' pre-K programs, which function differently from Head Start programs and even more differently from child care programs. These network leaders may be less effective in providing support opportunities for other sectors than for their own, as they mostly work within school hours and are occupied by school concerns. These network leaders may lack relationships with or exposure to programs in other sectors, which may hinder their ability to lead and support programs across sectors. Child care directors that need support may lack the necessary relationships to effectively advocate for their programs and may feel the network does not represent or respond to their interests.

The third factor highlights the difficulty of balancing the duties of network leadership with another full-time leadership position. Many of the network leaders across Louisiana took on their roles without reducing the functions of their previous jobs, which often include leading pre-K operations in the public school system. The work of leading a cross-sector ECE network after Act 3 may be overwhelming for anyone, but it is likely far more challenging when combined with another leadership position. Multiple network leaders indicated in their open-ended responses that they believed their networks were understaffed, underfunded, and that they were expected to fulfill several tasks that were outside the scope of their jobs. For many network leaders, holding network meetings, facilitating CLASS observations, providing instructional support, and administering to the varied needs of programs across sectors may conflict with other responsibilities and the work of the network may be deprioritized in these circumstances.

The consequences of this overwhelm are not likely dire in Head Start programs, which function with federal support and resources and were previously exposed to the CLASS as a part of their annual evaluation process. However, child care programs are likely more dependent upon the community network than programs in other sectors. Many child care programs are likely to suffer because they lack a support structure like those available to Head Start or public school pre-K programs and had no exposure to the CLASS prior to Act 3. Without consistent support and resources from the community network, these child programs may struggle to meet the demands of the CLASS, improve over time, and reduce quality gaps across sectors.

These factors provide related takeaways for policymakers. First, local ECE system reforms should explore strategies to ensure all sectors' interests are represented in local leadership so that their needs are taken into account. To do this, policymakers may consider designing leadership structures that include a representative from each sector. This may reduce the likelihood that the needs of child care programs, for instance, remain at the forefront of network priorities.

Second, policymakers should consider whether local systems can be led by single individuals who already hold, and plan to keep, full-time roles. If leaders are already working in ECE leadership positions, such as in public school systems, they may struggle to adequately consider or meet the needs of programs outside of their sector, particularly in a cross-sector reform context. Even worse, they may become overwhelmed with the work of leading their networks and carrying out their existing roles. To prevent these outcomes, policymakers might consider installing stand-alone roles so that leaders can prioritize local leadership responsibilities above the duties of their pre-existing jobs.

Alternatively, they might encourage or require that local systems add paid support personnel to increase system capacity. Many local communities lack the resources to add new, paying positions to lead their systems, so states should consider means to provide financial resources to fund these positions or otherwise target supports to the network leaders struggling with limited capacity.

Limitations

This paper uses novel data from a unique governance reform in Louisiana to examine how local ECE leadership systems implemented state-level policies in their communities. However, there are multiple limitations that should be considered when interpreting these data. Fist, leaders completed surveys following a meeting with LDOE. While all LDOE representatives left the room prior to survey administration, network leaders knew they were part of a fairly small survey population and that their responses were neither anonymous nor confidential. As a result, leaders may have felt pressure to provide responses they believed preferable to LDOE, instead of presenting their authentic views.

Second, we administered network leader surveys following four years of Act 3 implementation. Most of the questions in the survey asked network leaders to reflect on their work across their time as network leaders. Network leaders may have most clearly recalled recent strategies and challenges. These recollections may reveal less, therefore, about the initial challenges of creating and building community networks and more about the work of improving and sustaining them.

Conclusions

Evidence from the K-12 context suggests that effective school districts are able to support instructional improvement, reduce disparities in resources across contexts, and build a cohesive culture aligned with district goals. This study provides an early examination of local leadership in ECE across Louisiana, which created unique local systems to implement a statewide reform and lead local improvement efforts. Results indicate that Louisiana's network leaders provided various instructional resources to help local programs improve, but sometimes struggled to reach programs across sectors. Differences in sector-level support for Louisiana's reform reflected these struggles and signal the challenges of leading a cross-sector system.

Results from this study point to future directions in Louisiana and elsewhere. In Louisiana, it is important to better understand differences in network leaders' experiences as well as the factors that were associated with reported struggles supporting programs across sectors. It is also necessary to better understand whether and how local leaders' specific strategies to support programs are related to quality improvement in their networks. Outside of Louisiana, it is important to consider the findings from this study that likely generalize to other contexts. Specifically, other states building local systems will also need to address disparities across sectors and support under-resourced programs, particularly child care programs, to ensure quality improvement at scale. Policymakers should consider the degree to which cross-sector differences proved difficult to navigate in this study while researchers should continue to explore individual communities' unique strategies to build systems that best serve the needs of the diverse sectors serving local children.

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Tables and Figures

Table 1.
Network Leaders' Reported Buy-In for the CLASS, QRIS ratings

	% Strongly agree/Agree
CLASS	
I have a clear understanding of what the CLASS measures.	95%
CLASS is a good way to measure the quality of teachers' interactions with children.	95%
Children learn more in classrooms with higher CLASS scores.	90%
With practice and support, teachers can improve their CLASS scores.	97%
Ensuring high quality teacher-child interactions is a priority for my network.	97%
Louisiana's focus on CLASS will improve the quality of early childhood sites in the state.	95%
QRIS Ratings	
On the whole, ratings provide a fair and accurate summary of the quality in a site.	83%
Ratings provide a fair and accurate comparison of site quality across sectors.	83%

Note: N=58 network leaders.

Table 2.

Network Leaders' Strategies to Support Quality Improvement In Their Communities

	% Yes
Professional Development	
Network has led professional development workshop or training past 12 months.	98%
Network has led a training or workshop on the CLASS.	98%
Network provides sufficient professional development to meet teachers' needs.	79%
Instructional Coaching and Curricular Training	
Network provides instructional coaching.	81%
Network provides sufficient instructional coaching to meet teachers' needs.	26%
Network provides instructional coaching across sectors.	62%
Network provides curricular training.	84%

Note: N=58 network leaders.

Table 3.

Network Leaders' Challenges Unifying Sectors

	% Strongly agree/Agree
Funding differences across sectors pose a meaningful challenge.	71%
Differences in rules and regulations across sectors pose a meaningful challenge.	55%
Differences in vision and goals across sectors pose a meaningful challenge.	34%
Network holds strategic planning in collaboration with all sectors.	84%

Note: N=58 network leaders.

Table 4.

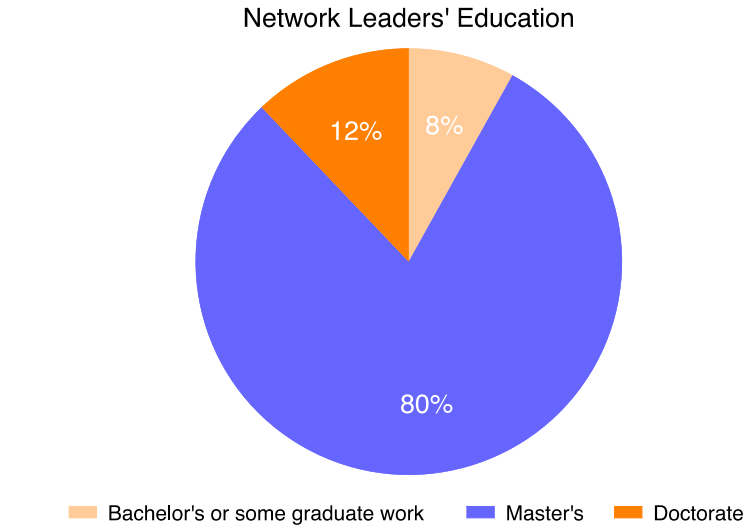
Network Leaders' Perceptions of Program-Level Buy-in for the CLASS

	% Strongly agree/Agree
Most early childhood leaders understand the CLASS.	91%
Most early childhood leaders view ratings as fair and accurate summary of quality.	91%
Most early childhood leaders are focused on improving CLASS scores.	91%
School principals view CLAS as a useful tool for improving quality.	76%
Head Start leaders view CLASS as a useful tool for improving quality*.	84%
Child care leaders view CLASS as a useful tool for improving quality*.	68%

Note: N=58 network leaders. * indicates that response rates were calculated among the networks that reported Head Start (55) or child care (53) programs operating in their communities.

Figure 1.

Network Leaders' Backgrounds and Experiences



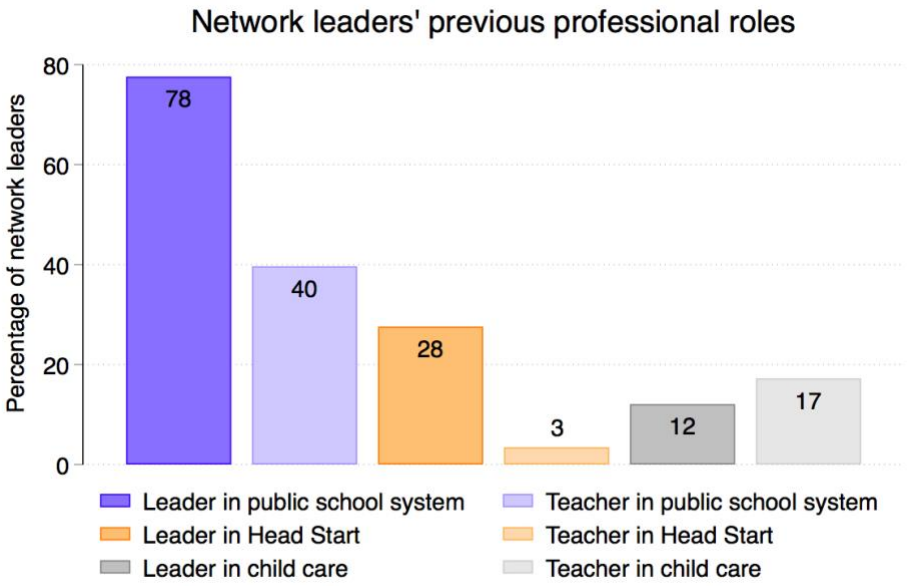
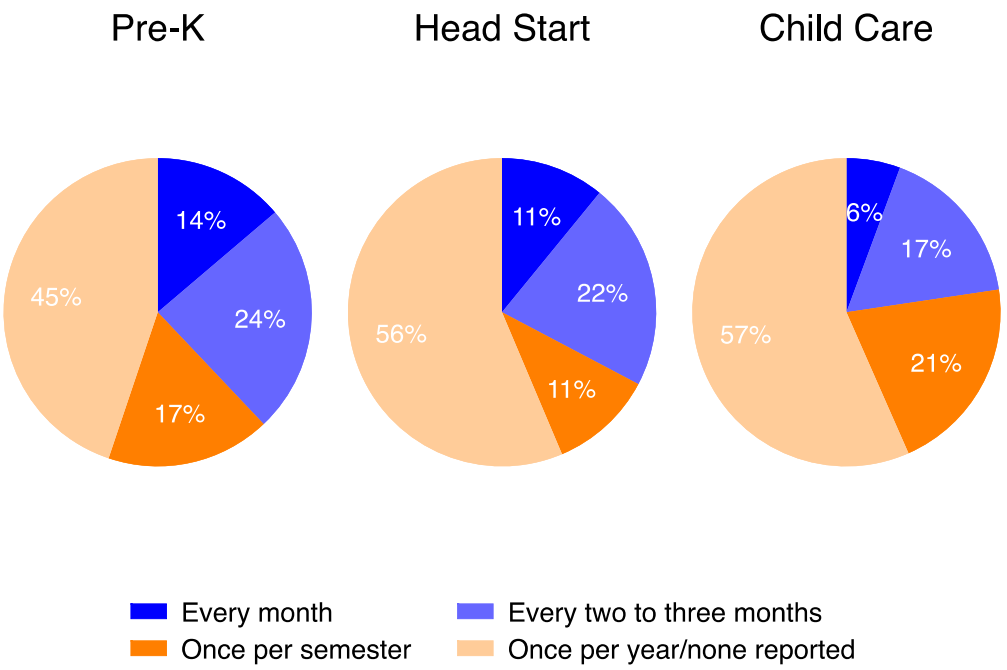


Figure 2.

Frequency of Curriculum Training Across Sectors



Note: N=58 leaders in pre-K graph, 55 in Head Start graph, and 53 in child care graph.

APPENDIX: NETWORK LEADER SURVEY

SEELA
Study of Early Education - Louisiana

Fall Network Leader Survey

General Information

The following questions ask you to provide general information about yourself. We will use this information to e-mail you a $25 Walmart gift card once you submit your finished survey.

Please provide your full name and e-mail address.

First name:

_____

Last name:

_____

E-mail address:

_____

Please enter the name of your Early Childhood Care and Education Network.

_____

Your Role as a Network Leader

The following questions ask about your specific role, responsibilities, and priorities as a network leader.

What is your current title?

Please indicate how long you have worked …

	Years	Months
...as the leader of this Early Childhood Care and Education Network.		
…in early childhood education in this community.		

Network leaders have a variety of roles and responsibilities. Describe the *main* responsibilities of your current job? *Please be specific and name up to three primary roles*.

Network leaders often face competing demands. Please indicate the extent to which you focus on the following issues in your network.

	Not currently a priority	A priority	Top priority	Not applicable
Ensuring all children are prepared to succeed in kindergarten	O	O	O	O
Ensuring teachers interact with children in engaging and supportive ways	O	O	O	O
Ensuring teachers have access to the professional development and/or instructional coaches they need	O	O	O	O
Providing resources and supports to sites that are low-performing	O	O	O	O
Finding and securing local resources to support network needs (e.g., public funding, private sponsorships)	O	O	O	O
Building collaboration between child care directors, Head Start directors and school principals	O	O	O	O

Your Professional Background

The following questions ask about your educational and professional experiences.

What is the ***highest*** level of education you have *completed*? *Please mark one.*

O High school diploma, Child Development Associate (CDA), or Associate's degree (A.A.)
O A bachelor's degree (B.A. or B.S.)
O Some graduate work, but no degree
O A graduate degree (M.A. or M.S.)
O A graduate degree beyond a master's (Ph.D. or Ed.D.)

Do you have a degree in early childhood education or a related field? *Please do not include a Child Development Associate (CDA) credential or an Early Childhood Ancillary Certificate (ECAC). Please mark one.*

O No
O Yes

Are you currently enrolled in any post-secondary degree program (e.g., M.A., Ph.D.)? *Please mark one.*

O No
O Yes

Have you ever worked in any of the following positions? *Please mark one answer per line.*

	No	Yes
In a leadership role in a public school district or school (e.g. principal, assistant principal school)	O	O
In a leadership role in a Head Start site	O	O
In a leadership role in a child care center	O	O
In a teaching role with preschool-aged children in a public school district or school (e.g. lead teacher, assistant teacher)	O	O
In a teaching role in a Head Start site	O	O
In a teaching role in a child care center	O	O
In a teaching role outside of early childhood (e.g. K-12)	O	O

Please use the space below to provide any additional information about your professional background and experiences, and the path that brought you to your current role in the network.
Ran a private foundation in the state

Building a Coordinated Early Childhood System

One goal of Act 3 was to ensure a more coordinated early childhood system in which public schools, Early Head Start/Head Start, and child care centers work together to provide high quality early childhood opportunities for children in the community.

What site types exist in your network? *Please mark all that apply*.

O Public school (e.g. LA4) or nonpublic school (e.g., NSECD) Pre-K
O Early Head Start/Head Start
O Child care

The following questions ask about how your network uses varied funding sources to support high quality early childhood options for local children and families.

Does your network combine public school pre-K, Head Start and/or child care funds to provide individual children with full-day, full-year services?

O No
O Yes
O Don't know

In your network, are children in the same classroom ever funded through different public funding sources (e.g., children supported by Head Start funds and children supported by LA-4 funds)?

O No
O Yes
O Don't know

Building a coordinated early childhood system is challenging. The next set of statements aims to capture your views about the current level of cohesion in your network. There are no correct answers. *Please indicate how much you disagree or agree with the following statements:*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
In this network, the public schools, Head Starts, and child care sites work together towards a shared goal.	O	O	O	O	O
In this network, there is a strong sense of community among early childhood educators from the public schools, Head Starts, and child care sites.	O	O	O	O	O
In this network, public school leaders (e.g. the superintendent, principals) view early childhood education as a priority.	O	O	O	O	O
In this network, public school leaders (e.g. the superintendent, principals) have invested time and resources in supporting quality improvement efforts in Head Start and child care.	O	O	O	O	O
Most Head Start directors are actively engaged and committed to the work our network does.	O	O	O	O	O
Most child care directors are actively engaged and committed to the work our network does.	O	O	O	O	O

Differences across public schools, Head Start centers, and child care centers can make it challenging to build a cohesive early childhood system. *Please indicate how much you disagree or agree with the following statements*.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Funding differences between public schools, Head Starts, and child care sites pose a major challenge to improving early childhood opportunities in this network.	O	O	O	O	O
My network is able to leverage community resources (e.g. corporate funds, school district support, local nonprofit support) to improve local site quality.	O	O	O	O	O
Differences in rules and regulations across public schools, Head Starts, and child care sites pose a major challenge to improving early childhood opportunities in this network.	O	O	O	O	O
Differences in goals and vision across public schools, Head Starts, and child care sites pose a major challenge to collaborative efforts in this network.	O	O	O	O	O
Strategic planning in my network is conducted in collaboration with leaders from all site types (public school Pre-K, Head Start, and child care).	O	O	O	O	O
Despite differences across site types, we are making real progress towards building a cohesive early childhood system in this network.	O	O	O	O	O

What strategies have you used to bring together public schools, Head Starts, and child care sites to collaborate on improving access and quality in this network?

Does your network work collaboratively with family child care home, Type 1 sites, and/or Type 2 sites? If so, please describe.

Are family child care homes, Type 1 centers, and/or Type 2 centers involved in your network's strategic planning? If so, please describe.

Measuring Quality in Early Childhood Classrooms

Measuring and improving teacher-child interactions using the Classroom Assessment Scoring System (CLASS) has been central to Act 3 and efforts to improve quality in the state. CLASS scores are the main metric reported in Early Childhood Performance Profiles. The next set of questions relates to the CLASS and Performance Profiles.

These first three items ask you to identify who typically conducts the local CLASS observations in your network.

In your network, who typically conducts the local CLASS observations in the public schools? *Please mark all that apply*:

- O The principal or early childhood leader observes their own public school
- O School principals or early childhood leaders from other sites
- O Instructional coaches
- O Outside observers hired by the school district
- O Other (*Please describe)*:

_____

In your network, who typically conducts the local CLASS observations in Head Start sites? *Please mark all that apply*:

- O The Head Start director observes their own Head Start site
- O Head Start directors from other sites
- O Instructional coaches
- O Outside observers hired by the school district
- O Other (*Please describe)*:

_____

In your network, who typically conducts the local CLASS observations in child care sites? *Please mark all that apply*:

- O The child care director observes their own child care site
- O Child care directors from other sites
- O Outside observers hired by the school district
- O Other (*Please describe)*:

_____

How would you rate the level of difficulty you experience ensuring all local CLASS observations are completed in your network*? Please mark one option.*

- O Very difficult
- O Difficult
- O Somewhat difficult
- O Not difficult

The next set of items asks about your own perceptions of the CLASS. Please indicate how much you agree with the following statements about the CLASS. *Please mark one response per line.*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
I have a clear understanding of what the CLASS measures.	O	O	O	O	O
CLASS is a good way to measure the quality of teachers' interactions with children.	O	O	O	O	O
Children learn more in classrooms with higher CLASS scores.	O	O	O	O	O
With practice and support, teachers can improve their CLASS scores.	O	O	O	O	O
Ensuring high quality teacher-child interactions is a priority for my network.	O	O	O	O	O
Louisiana's focus on CLASS will improve the quality of early childhood sites in the state.	O	O	O	O	O
I frequently have conversations with site leaders about CLASS.	O	O	O	O	O
I believe CLASS is improving teaching practices in this network.	O	O	O	O	O
The focus on CLASS in my network has led to real improvements in teaching.	O	O	O	O	O

Now please indicate how much you agree with the following statements about Louisiana's early childhood performance profiles. *Please mark one response per line.*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
On the whole, site ratings provide a fair and accurate summary of the quality in a site.	O	O	O	O	O
Local observers accurately rate site quality in my network.	O	O	O	O	O
Site ratings provide a fair and accurate comparison of site quality across site types.	O	O	O	O	O
Site ratings provide a fair and accurate summary of quality in infant, toddler and preschool classrooms.	O	O	O	O	O
I see the value of having both local CLASS observers and third party (Picard) CLASS observers.	O	O	O	O	O
Typically, third party (Picard) and local ratings of sites are about the same in my network.	O	O	O	O	O
Teachers can alter their normal teaching behaviors during CLASS observations to get a higher score.	O	O	O	O	O

The following items ask about the ways leaders in your network, including school principals, Head Start directors, and child care directors have responded to the CLASS and to early childhood performance profiles. *Please mark one response per line.*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Most early childhood leaders in my network understand the CLASS.	O	O	O	O	O
Most early childhood leaders in my network view their site's rating as a fair and accurate summary of their site's quality.	O	O	O	O	O
Some early childhood leaders in my network believe that teachers know how to alter their normal teaching behaviors during CLASS observations to get a higher score.	O	O	O	O	O
Most early childhood leaders in my network are focused on improving CLASS scores and site ratings.	O	O	O	O	O
Overall, *school principals* in my network view CLASS as a useful tool for improving site quality.	O	O	O	O	O
Overall, *Head Start directors* in my network view CLASS as a useful tool for improving site quality.	O	O	O	O	O
Overall, *child care directors* in my network view CLASS as a useful tool for improving site quality.	O	O	O	O	O

Fostering Improvement

In Louisiana, networks are using a variety of strategies to support improvements in early childhood site quality and access. This section asks you to describe your network's experiences with strategies and policies to improve quality and access.

Professional Development

The following questions ask about professional development initiatives in your network.
In the past 12 months, has your network provided lead teachers with a professional development workshop or session on ***any*** topic?

O No
O Yes
O Don't know

The next set of items is about the specific types of professional development workshops or sessions that your network has provided. For each specific topic, indicate whether your network has provided it within the past 12 months. *Please mark one response per line.*

	No	Yes	Don't know
A training or workshop on the CLASS (Classroom Assessment Scoring System) observation tool.	O	O	O
A training or workshop on Teaching Strategies Gold or another tool for assessing children.	O	O	O
A training or workshop on early literacy, mathematics, or other subject matter instruction.	O	O	O
A training or workshop on children's social emotional needs or their behavior in the classroom.	O	O	O
A training or workshop on another topic.	O	O	O

In your network, are you able to offer sufficient professional development opportunities to meet teachers' needs?

O No
O Yes
O Don't know
O Other, *please explain*:

Please indicate how much you agree with the following statement: Overall, the professional development workshops and trainings my network has provided over the past 12 months have helped teachers improve the quality of their interactions. *Please mark one.*

O Strongly disagree
O Disagree
O Neither agree nor disagree
O Agree
O Strongly agree

In addition to workshops and trainings, some networks provide teachers access to instructional coaching. Does your network provide coaches to support teachers?

O No
O Yes
O Don't know
O Other, *please explain*:

_____

Does your network provide coaches to teachers across all site types (public schools, Head Start, and child care)?

O No
O Yes
O Don't know
O Other, *please explain*:

_____

In your network, are there enough coaches to meet teachers' needs?

O No
O Yes
O Don't know
O Not applicable
O Other, *please explain*:

_____

Has your network provided the following programs to support teachers? *Please mark one response per line.*

	No	Yes	Don't know
Making the Most of Classroom Interactions (MMCI)	O	O	O
My Teaching Partner (MTP)	O	O	O
Another coaching program, *please list:* _____	O	O	O

Please indicate how much you agree with the following statement: Overall, the coaches my network has provided over the past 12 months have helped teachers improve the quality of their interactions. *Please mark one.*

O Strongly disagree
O Disagree
O Neither agree nor disagree
O Agree
O Strongly agree
O Not applicable; my network does not provide instructional coaching.

High Quality Curriculum

Through the Child Care Curriculum Initiative Grant, early learning centers in Louisiana are eligible for reimbursement when they purchase curricula rated as "Tier 1," in Louisiana's evaluation process.

The following items ask about the use of Tier 1 curricula across different site types in your network. *Please mark one response per line.*

	None/few	Some	Most/all
How many of the public schools in your network use Tier 1 curricula?	O	O	O
How many of the Head Start sites in your network use Tier 1 curricula?	O	O	O
How many of the child care sites in your network use Tier 1 curricula?	O	O	O

We are interested in knowing which curricula are used in your Network. For each site type, please mark *all* curricula that are used regularly.

	Public schools	Head Start	Child Care
Creative Curriculum for Infants, Toddlers, & Twos (3rd edition)	O	O	O
Creative Curriculum for Preschool	O	O	O
Early Foundations Infant-Toddler	O	O	O
Learn Every Day, The Program for Infants, Toddlers, and Twos	O	O	O
Blueprint for Early Literacy (Ages 3-4)	O	O	O
DIG (Develop. Inspire. Grow.)	O	O	O
Eureka Math	O	O	O
Frog Street (Ages 0-3)	O	O	O
Frog Street Pre-K	O	O	O
Frog Street Threes	O	O	O
Houghton Mifflin-Harcourt – Big Day for Pre-K	O	O	O
InvestiGators Club Preschool	O	O	O
Little InvestiGators (Ages 0-3)	O	O	O
OWL (Opening the World of Learning)	O	O	O
Voyager—We Can Early Learning Curriculum (Ages 3-4)	O	O	O
Other, *please list*: _____	O	O	O

Does your network provide training for particular curricula? If yes, for which curricula does your network provide training?

O No

O Yes (*please describe below*):

_____

If your network provides curricular training, how often does your network provide this training to…

	Once per year or less	Once every six months	Every two to three months	Monthly	Not applicable
Public schools	O	O	O	O	O
Head Start sites	O	O	O	O	O
Child care sites	O	O	O	O	O

Assessment

The following questions ask about how your network uses assessments to monitor both children's learning progress in early childhood sites and kindergarten readiness at school entry.

Please select your level agreement with the following statements about how you use data from TS GOLD or other early childhood assessments in your network.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Not Applicable
The early childhood assessments used in my network accurately capture young children's skills.	O	O	O	O	O	O
Early childhood assessment data provide me with useful information that informs my decisions and priorities.	O	O	O	O	O	O
I use data from my network's early childhood assessments.	O	O	O	O	O	O
I use data from early childhood assessments to inform my decisions about professional development.	O	O	O	O	O	O
I use data from early childhood assessments to inform my decisions about curricular investments.	O	O	O	O	O	O
I use data from early childhood assessments to identify sites that may need additional supports.	O	O	O	O	O	O
I use data from early childhood assessments to identify children who may need additional screening or supports.	O	O	O	O	O	O
I use data from early childhood assessments to ensure children are making adequate progress.	O	O	O	O	O	O

Please select your level agreement with the following statements about how you use data from kindergarten readiness assessments in your network.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree	Not Applicable
The kindergarten readiness assessment used in my network accurately captures young children's skills and readiness for school.	O	O	O	O	O	O
Kindergarten readiness assessment data provide me with useful information that informs my decisions and priorities.	O	O	O	O	O	O
I use data from my network's kindergarten readiness assessments.	O	O	O	O	O	O
I use data from kindergarten readiness assessments to inform my decisions about professional development.	O	O	O	O	O	O
I use data from kindergarten readiness assessments to inform my decisions about curricular investments.	O	O	O	O	O	O
I use data from kindergarten readiness assessments to identify sites that may need additional supports.	O	O	O	O	O	O
I use data from kindergarten readiness assessments to identify children who may need additional screening or supports.	O	O	O	O	O	O
I use data from kindergarten readiness assessments to ensure children are making adequate progress.	O	O	O	O	O	O

Are there any other specific challenges to using early childhood and kindergarten entry assessment data in your network? Please describe.

Early Childhood Ancillary Certificate

In 2014 LDOE passed a policy requiring that by July of 2019 all lead teachers in centers that receive public funding must attain a new educational credential called the Early Childhood Ancillary Certificate (ECAC).

The next set of items asks you about your network's experience with the ECAC. *Please indicate how much you agree with the following statements about the ECAC. Please mark one response per line.*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Most teachers who need an ECAC can find and enroll in an ECAC program.	O	O	O	O	O
Once they are enrolled in an ECAC program, most teachers can meet all the certificate requirements.	O	O	O	O	O
Overall, teachers who are getting the ECAC find the training and supports useful.	O	O	O	O	O
Most child care leaders see the value of the ECAC.	O	O	O	O	O
Meeting the ECAC requirement is a major challenge for child care site leaders in my network.	O	O	O	O	O
I believe that teachers who earn an ECAC will stay in their jobs longer.	O	O	O	O	O
Over time, the ECAC requirement will improve the quality of early childhood sites in my network.	O	O	O	O	O

Is there anything else you would like to share about the ECAC requirement in your network?

Ready Start Networks

To further support quality improvement efforts statewide, Louisiana recently launched a pilot to establish "Ready Start Community Networks." The following questions relate to your perceptions of this pilot.

Are you aware of the "Ready Start Community Networks" pilot?

O No
O Yes

Is your network currently in the process of becoming a "Ready Start Community Network?"

O No
O Yes

If so, what steps has your network taken to become a "Ready Start Community Network?" Please describe.

Are there any other strategies, not listed above, that you have used to foster quality improvements in your network? Please describe those below providing specific examples.

Quality Improvement, Goals, & Necessary Supports

The goal of Act 3 was to increase Louisiana families' access to high quality early childhood sites. The next set of questions relates to your network's progress in providing accessible, high quality options for local children over the past four years.

Please indicate how much you agree with the following statements. *Please mark one response per line.*

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Since Act 3, my network has developed a much clearer, shared vision for early childhood.	O	O	O	O	O
Since Act 3, site directors across different site types (public schools, Head Start, child care) have worked together toward a shared vision for network excellence.	O	O	O	O	O
Since Act 3, local expertise in improving ECE quality has increased in my network.	O	O	O	O	O
Since Act 3, access to early childhood sites has improved in my network.	O	O	O	O	O
Since Act 3, the quality of sites has improved throughout my network.	O	O	O	O	O
Since Act 3, children in my network are better prepared for kindergarten.	O	O	O	O	O

What do you consider your network's greatest success or point of pride over the past four years?

What do you consider your network's greatest challenge over the past four years?

Building a successful community network that ensures all children are prepared for kindergarten is a challenging, multi-year process. Looking forward, what are your specific goals for your network over the *next* four years?

A lack of resources is often a major challenge for creating high quality, accessible early childhood opportunities. Please describe, in your own words, how you would prioritize additional resources, if available, to improve site quality and/or access in your network.

Below, please provide any additional comments about you, your network, and efforts to provide high quality experiences for young children.