

EVALUATION OF EARLY
CHILDHOOD PROGRAMS IN
INDIANA
First report
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Introduction

Starting in the spring of 2021, The National Institute for Early Education Research (NIEER) conducted a landscape evaluation of early childhood programs in Indiana (IN). The evaluation focused on understanding program components, program quality, and children's learning and development. This study was commissioned by Early Learning Indiana (ELI) and is intended to provide Indiana policymakers with research-based information on the quality of early childhood programs, and the learning and development status of young children birth to five in the state.

Since 2014, ELI has strategically invested generous grants from the Lilly Endowment in key policy areas to improve the quality, affordability, and access to early childhood programs. However, independent assessments of classroom quality and children's development have not been collected across a wide sample of programs and children in Indiana. This independent data is needed to understand the specific characteristics and conditions that lead to children's healthy development and improve program quality. The findings are intended to support the use of data to drive policy and practice decisions and to strengthen the quality of the early learning system in Indiana.

The purpose of the project is to assess the landscape of quality in early care and education programs serving children birth to kindergarten in IN, assess the gains of children enrolled in these programs in language, cognitive, and social-emotional domains, and describe differences in program quality by program type, Paths to Quality (PTQ) participation and star level, and geographic region. This first report summarizes the baseline data collected on program quality and the developmental status of children in the sample programs. Data was collected during the periods of March 2021 through March 2022. Since the spring of 2020, early childhood education (ECE) systems have faced unprecedented challenges due to the onset of the COVID-19 pandemic. Although most centers had reopened in Indiana and elsewhere in the U.S. during the time period in this study (after most instituted an initial shutdown period), the pandemic continued to create interruptions and limit access to programs and children through the spring of 2022. The Omicron and Delta variants of COVID-19 caused continued quarantines and classroom closures, particularly affecting children younger than five who were ineligible for vaccination at the time.

Accordingly, this report summarizes classroom quality experienced by children in a sample of 321 classrooms in 205 programs in Indiana. We also report on the baseline developmental status of infants, toddlers, and preschoolers in the sample. Future reports will look at children's growth in these programs, a second snapshot on quality, and a final report will summarize information on families and teachers in the programs in the study.

Findings demonstrate that infant, toddler, and pre-K classrooms are averaging high to moderate levels of quality in some domains: responsive caregiving (infants), emotional behavioral support (toddlers), and emotional support and classroom organization (preschool) domains. This is a common finding across other similar studies of early care and education programs. However, areas related to language and instructional support score low across all types of classrooms. We explored quality separately for a few subgroups of interest, including PTQ level, facility type (auspice), and urban classification. Small differences were found between subgroups, and these are reported. Notably, for all but one domain, PTQ 3- and 4-rated programs scored better than other programs across age levels, although these differences were often minimal. Infant and Toddler classroom quality as measured by the CLASS is found to be

higher than Early Head Start classrooms,¹ while preschool quality is found to be in the mid to low range relative to quality assessed in other state and city programs in the U.S.

Programs reported challenges with staffing and enrollment that mirrored trends nationally impacting the early childhood workforce. In addition, programs reported variations in their usage of curriculum, with home-based programs and programs rated below 3 and 4 in PTQ being least likely to use any curriculum (as self-reported).

Findings on the baseline development levels of children provide an opportunity to describe the state of children in ECE programs in Indiana. We find lower developmental levels in language and cognition for infants and toddlers, and socio-emotional levels at par with what we expect due to maturation. This is also the case in literacy and math for children ages three to five, while not in receptive language and executive functions. Looking at patterns across ratings, urbanicity, and community poverty indicate higher average scores in higher-rated centers and non-rated centers. With only baseline assessments included in this report, findings are not indicative of differences in children's learning experiences, but rather indicative of cumulative developmental opportunities. Baselines scores also indicate children in mid-sized cities also perform above their peers elsewhere.

Study Methods

This evaluation of Indiana's ECE system is a multi-site study encompassing several components to provide the first-ever independent assessment at this scale of the quality of early care and education programs of various auspices. It is also to assess the developmental status of children birth to kindergarten entry. Below, we present the findings of independent assessments on multiple dimensions of program quality and selected program components/characteristics. Data collection included administrator surveys and program observations conducted between the spring and fall of 2021, as well as baseline child outcomes. This report addresses the following research questions using this information:

1. What is the observed quality of children's classroom experiences?
2. What are key characteristics of early childhood programs?
3. What is the developmental status of children enrolled in early childhood programs?

The original research plan was to measure classroom quality in the spring of 2020 and to measure child progress and program quality in the school year 2021-22. The study had to revise these timelines to adapt to the constraints imposed by the COVID-19 pandemic. Procedures and measures are described in detail below. Classroom observations were conducted starting in May 2021 and through the end of December 2021. Observations on program quality were done using a well-known observation protocol during one visit of about two and a half hours and paired with a researcher-developed checklist to capture the program's overall environment.

¹ As in the Baby FACES study, which is discussed later.

1. Sample

The sample included 321 classrooms in 201 programs, 48 of which were home-based providers and 29 of which were Community Coordinated Childcare (4C) programs. To recruit providers, NIEER partnered with ELI and Transform Consulting Group to support communication about the project to programs across the state of Indiana. Participation was voluntary and ELI provided center-level incentives for participation.² Classroom quality was observed using the CLASS Infant, Toddler, or Pre-K, depending on classroom composition. Protocols for classroom observation required using the instrument that was appropriate for the age group of the majority of children, as recommended by the developers. In the case of balanced classrooms across infant, toddler, or preschool-aged children (particularly in home-based providers), a combined approach was implemented with half the cycles observed with one tool and half with the other.³ Table 1 below reports program characteristics for the recruited classroom sample across types of programs, quality ratings, and county classification.

Table 1. Sample characteristics for centers.

Program Characteristics		Count	%
Facility Type	Center-Licensed	68	33.83%
	Home-Licensed	47	23.38%
	LEA	18	8.96%
	Ministry	57	28.36%
	Other*	11	5.47%
Quality Rating	1	28	13.93%
	2	11	5.47%
	3	83	41.29%
	4	53	26.37%
	Non-Rated**	26	12.94%
County Classification	Mid-Sized	43	21.39%
	Rural	70	34.83%
	Urban	88	43.78%
Community Poverty	Low	158	78.61%
	High	43	21.39%

Note: Administrative surveys were completed by 30 centers.

*Programs noted as “other” are those that are not classified as eligible to be included in the Paths to Quality QRIS (i.e., mostly public and private school-based programs that are legally license-exempt).

**Non-Rated includes both programs rated 0 and those categorized as “other” and thus, are non-rated.

Tables 2 report the number and percent of children across selected characteristics, including center characteristics (rating, urbanicity) and community poverty⁴ by age group.

² In part of this project, ELI also partnered with Teaching Strategies to support access to, and use of, TS Gold©.

³ Community Coordinated Childcare Inc. (4Cs) of Indiana independently completed and provided CLASS scores for ten infant, 24 toddler, and 61 pre-K classrooms; NIEER observed 226 classrooms. These scores are included in this report and in Table 1.

⁴ We have adopted the definition of poverty areas based on the U.S. Census Bureau’s 2015-2019 5-year American Community Survey (ACS), which is defined as census tracts where at least 20% of the population lives in poverty.

Table 2. Children’s sample characteristics

		Infant (n=223)	Pre-K (n=492)
Gender	Female	52.47%	52.64%
	Male	47.53%	47.36%
Age Cohort	1	17.49%	n/a
	2	40.81%	n/a
	3	41.70%	n/a
	4	n/a	30.89%
	5	n/a	53.86%
	6	n/a	12.60%
By Center Rating	1 & 2	24.66%	17.07%
	3	29.60%	43.70%
	4	30.49%	24.39%
	Unrated	15.25%	14.84%
By Urbanicity	Mid-Size	23.32%	25.61%
	Rural	32.29%	29.07%
	Urban	44.39%	45.33%
By Community Poverty	Low	19.19%	22.59%
	High	80.81%	77.41%

2. Measures and Procedures

Classroom Observations

Classroom quality was measured using The Classroom Assessment Scoring System. The study utilized three versions: Infant (CLASS Infant; Hamre, et. al., 2014), Toddler (CLASS Toddler; LaParo, et. al., 2012), and Pre-K (CLASS Pre-K; Pianta, La Paro, & Hamre, 2008). See Appendix A for a summary of the domains assessed with each CLASS instrument. The CLASS measures teacher-child interactions and classroom processes. The protocol used required that at least four children were present, and at least half of the children’s ages aligned with the CLASS tool used (e.g., at least half of the children were ages birth – 18 months to be observed with CLASS Infant). In classrooms with an approximately even split of children (e.g., an FCC home with three pre-K children and three infants), two CLASS tools were used, rotating cycles between the two as recommended by the developer. Given the smaller size of FCCs, we required at least two children present. More detail on the CLASS is provided in Appendix A.

Observers were trained on reliability before conducting observations of classroom quality. CLASS observers were trained by a CLASS Affiliate Trainer from NIEER, or through the Teachstone® training platforms. All observers met the developer’s reliability requirements (80%) for observer certification. Observers were also trained in practices and procedures for

Source: <https://www.census.gov/library/stories/2021/02/fewer-people-living-in-poverty-areas-2015-2019.html>. The data on poverty is from the Social Vulnerability Index data: <https://www.atsdr.cdc.gov/placeandhealth/svi/>.

conduct and required to complete background checks and training in human subjects research (human subject protections, ethical issues, etc.). All assessors were required to pass a calibration mid-data collection.

This instrument was paired with environmental checklists (for infant/toddler and preschool classrooms) developed by NIEER that provide a broad general picture of program environments (home-based providers were observed using only the CLASS). In addition, we deployed program surveys asking program directors about various characteristics of their programs (enrollments, teachers, eligibility criteria for children, use of sliding fees for tuition, typical class sizes, curricula, and director characteristics) and to capture ways in which the impact of the COVID-19 pandemic generally affected program enrollment and/or program services.

Child Measures

This study employed a battery of standardized child assessments designed to measure learning across various domains and are psychometrically valid, proven to discriminate effects in intervention studies, and appropriate for the age range of birth to five. Analyses of baseline measures provide a descriptive landscape of children's developmental status in Indiana for children enrolled in early childhood programs. Children assessed were enrolled in the programs that agreed to participate in this study. Since this evaluation includes infants and toddlers as well as preschool-age children, assessment measures are split into two separate categories as they differ across these age groups. Children were assessed between the months of September of 2021 and February of 2022.

Preschool-age children were assessed in expressive vocabulary, math, literacy, executive function, and socio-emotional skills. The measures utilized are:

- The Peabody Picture Vocabulary Test--Fourth Edition (PPVT-IV; Dunn & Dunn, 2007) - a 204-item test of receptive vocabulary in standard English.
- The Woodcock-Johnson Psycho-Educational Battery-Fourth Edition (WJ-IV; Schrank, Mather, & McGrew, 2014), including at least Applied Problems and Letter-Word Identification subtests - ideally broad math and "reading."
- Dimensional Card Sort Task (DCCS; Zelazo, 2006), which assesses attention-shifting.
- Peg Tapping Test (PT; Diamond & Taylor, 1996). This test requires children to inhibit a natural tendency to mimic the experimenter while remembering the rule for the correct response.
- The Child Behavioral Checklist (Achenbach, 2009), a teacher- or parent-reported measure of children's social-emotional skills.

Infants and toddlers were assessed with the Bayley Scales of Infant and Toddler Development-Fourth Edition (Bayley-IV). This is a comprehensive assessment of five developmental domains for children ages one to 42 months of age. The Bayley Scales of Infant Development (BSID) are the most commonly used assessment of infant development. (Fernald, Kariger, Engle, and Raikes, 2009) We proposed using two scales of the Bayley —cognitive and language (expressive and receptive). The Bayley scales have been shown to predict later non-

verbal and verbal cognition and have been extensively validated on other measures. (Blaga, et. al., 2009; Feinstein, 2003)

Child assessors were trained to reliability with the exception of training for the Bayley, which was done through Pearson's online training platforms. Training includes training in practices and procedures for research conduct with children, as well as completing a background checks and training in human subjects research (human subject protections, ethical issues, etc.).

Results

Results are presented first for the CLASS for the analytical sample described above, and in relation to programs' PTQ ratings, their urban, mid-size, and rural county location, and their program type. In addition, the checklist summarizes program environment across these subgroups. The second section describes components of programs across the state in relation to their PTQ rating, program type, and urbanicity. The third section describes the findings on the developmental status of children by age, urbanicity, program rating, and community poverty. We conclude with a discussion of the findings.

1. Classroom Observations

CLASS Results

Average CLASS scores for the sample of Indiana early childhood classrooms for all domains and dimensions are reported in Table 2 by age group. Patterns are consistent with average findings reported in other studies of state early childhood education programs (discussed further below).

- CLASS Infant ratings for programs observed were on average 4.99 for responsive caregiving (RC), with a minimum score of 2.42 and a maximum score of 6.70.
- Classrooms rated with the CLASS Toddler showed an average rating of 5.78 for Emotional and Behavior Support (EBS), and an average rating of 3.07 for Engaged Support for Learning (ESL), with minimum scores observed at 3.05 and 1.00 and maximum scores at 6.88 and 5.67, respectively.
- CLASS Pre-K average scores were 5.74 for Emotional Support (ES) (minimum of 3.60 and maximum of 7.00), 5.08 for Classroom Organization (CO) (minimum of 2.13 and maximum of 6.73), and 2.76 for Instructional Support (IS) (minimum of 1.00 and maximum of 5.92).

In Table 3, across each age group, results point to lower-than-average scores on some of the sub-components and domains that are related to support for language, learning, and instructional support. Specifically, for infants, “early language supports”; for toddlers, all domains in “engaged supports for learning”; and for preschoolers, all domains in “instructional support.”

Table 3. CLASS Domain and Dimension means, standard deviations, and ranges, by age group.

Domain & Dimensions	Mean	Standard Deviation	Minimum	Maximum
Infant (n=39)				
Responsive Caregiving (RC)	4.99	1.00	2.42	6.70
Relational Climate (RL)	5.71	0.84	3.33	7.00
Teacher Sensitivity (TS)	5.58	0.94	3.20	7.00
Facilitated Exploration (FE)	4.61	1.35	1.00	6.60
Early Language Support (ELS)	4.06	1.43	1.67	7.00
Toddler (n=92)				
Emotional and Behavior Support (EBS)	5.78	0.75	3.05	6.88
Positive Climate (PC)	6.00	0.95	2.75	7.00
Negative Climate (NC)	6.87	0.26	5.80	7.00
Teacher Sensitivity (TS)	5.64	1.00	2.25	7.00
Regard for Child Perspectives (RCP)	4.95	1.07	1.75	7.00
Behavior Guidance (BG)	5.44	1.13	2.20	7.00
Engaged Support for Learning (ESL)	3.07	1.11	1.00	5.67
Facilitation of Learning and Development (FLD)	3.59	1.24	1.00	6.80
Quality of Feedback (WF)	2.61	1.11	1.00	5.40
Language Modeling (LM)	3.00	1.29	1.00	5.80
Pre-K (n=203)**				
Emotional Support	5.74	0.75	3.60	7.00
Positive Climate (PC)	5.97	0.99	3.20	7.00
Negative Climate (NC)	6.76	0.59	1.40	7.00
Teacher Sensitivity (TS)	5.40	1.02	2.40	7.00
Regard for Student Perspectives (RSP)	4.84	1.14	1.60	7.00
Classroom Organization (CO)	5.08	0.95	2.13	6.73
Behavior Management (BM)	5.46	1.05	1.60	7.00
Productivity (PR)	5.40	1.03	2.20	7.00
Instructional Learning Formats (ILF)	4.37	1.05	1.40	6.60
Instructional Support (IS)	2.76	0.99	1.00	5.92
Concept Development (CD)	2.62	1.05	1.00	5.75
Quality of Feedback (QF)	2.88	1.18	1.00	6.00
Language Modeling (LM)	2.77	0.96	1.00	6.00

*The Negative Climate dimension is reverse scored so that a high score represents “good.”

**Classrooms scored with multiple tools have both scores reflected in this table.

The overall CLASS Infant Score, the CLASS Toddler EBS domain, and the CLASS Pre-K ES domain captured whether classrooms are warm and caring environments, all of which scored close to or above 5. The concepts of classroom organization and group management are embedded in the CLASS Infant dimension on facilitated exploration and the CLASS Toddler

dimensions of Behavior Guidance and Facilitation for Learning & Development, which on average scored at 5.44 and 3.59, respectively. Lastly, aspects related to language support, modeling, productivity, concept development, and feedback all scored on average at levels at 3 or under, except for classrooms scored on CLASS Infant. In addition, in the sample, there were classrooms observed with scores at inadequate levels of quality. See Figures 1, 2, and 3 below for each of the distributions.

Moreover, the differences in the distribution of scores on the infant and toddler measures are observable in Figures 1, 2, and 3. Looking at the distributions allows going beyond the average score and demonstrates the percentage of the classrooms that score at low/inadequate levels (for example, under 3 for Emotional Support and Classroom Organization in preschool classrooms), at adequate levels (for example, with scores between 3 and 5), and at good or excellent levels (for example, with scores above 5 for good, and at 7 for excellent levels). However, it is important to consider that some domains tend to concentrate at lower levels altogether and evidence seems to suggest good to excellent scores on these domains mostly concentrate in the range between 3.5 or 4 and through 6, as is the case for Instructional Support in preschool classrooms.

For CLASS Pre-K, some research appears to support thresholds for ES and CO above 5 and IS above 3 as necessary to show a relationship between quality and children's outcomes in pre-K (other research defines these as slightly higher, at 5.5 and 3.5). (Burchinal, et. al., 2009; Burchinal, et. al., 2014; Hatfield, et. al., 2016)⁵ We use this literature to describe the percentage of classrooms above defined thresholds of quality below. Key takeaways from these assessments are:

- For infants, 53.8% of classrooms scored at or above 5 in Responsive Caregiving.
- For toddlers, 85.9% of classrooms scored above 5 in Emotional and Behavioral Support, and 53.3% of scored at or above 3 in Engaged Support for Learning.
- For preschool-aged children, 84.7% of classrooms scored at or above 5 on Emotional Support, 61.1% scored at or above 5 on Classroom Organization.
- Most concerning is that just 38.4% of classrooms scored above 3 on Instructional Support for preschool-aged children, a critical year for getting ready for kindergarten.

⁵ The Office of Head Start defines quality thresholds for CLASS Pre-K at 6 for the Emotional Support domain and the Classroom Organization domain, and at 3 for the Instructional Support domain. See: <https://eclkc.ohs.acf.hhs.gov/designation-renewal-system/article/use-classroom-assessment-scoring-system-class-head-start>

Figure 1. Distribution of CLASS Responsive Caregiving Domain for infants (n=39)

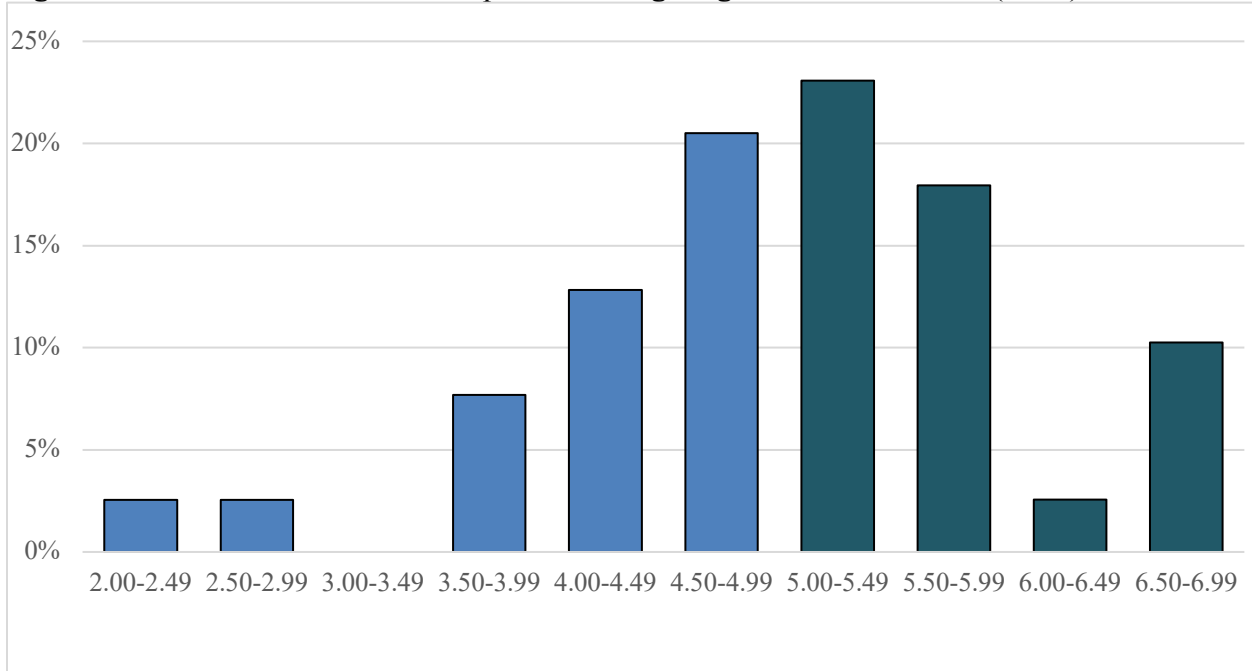


Figure 2. Distribution of CLASS Domains for toddlers (n=92)

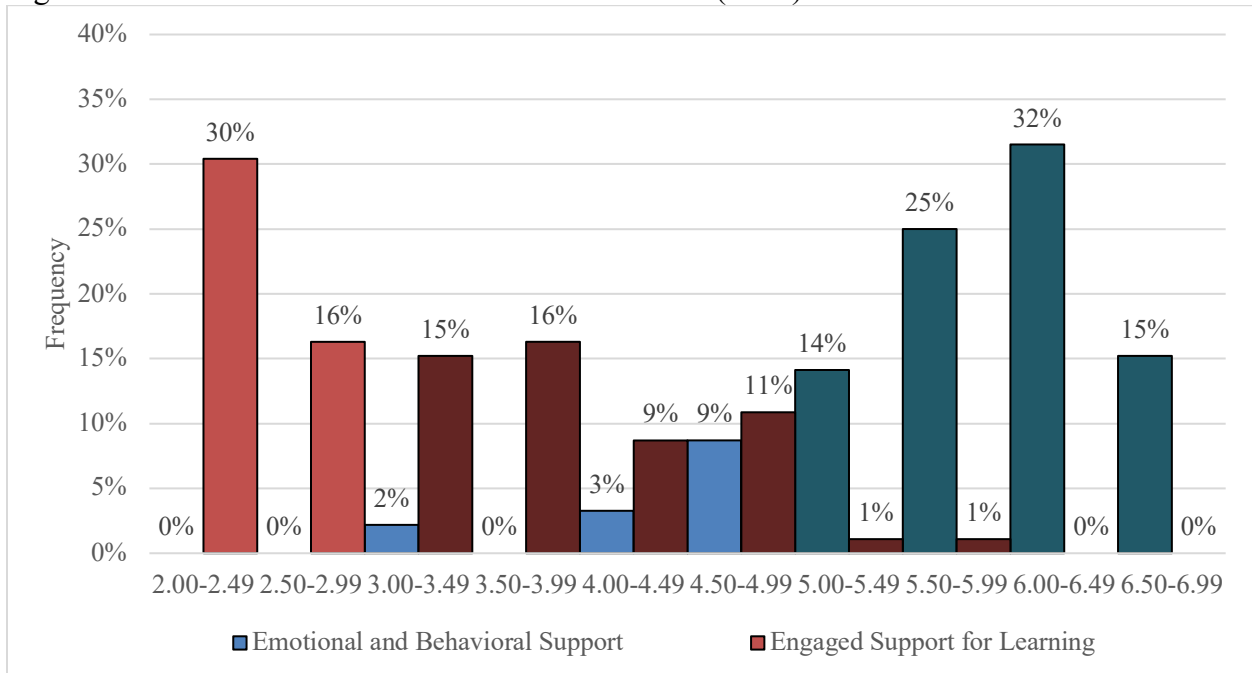
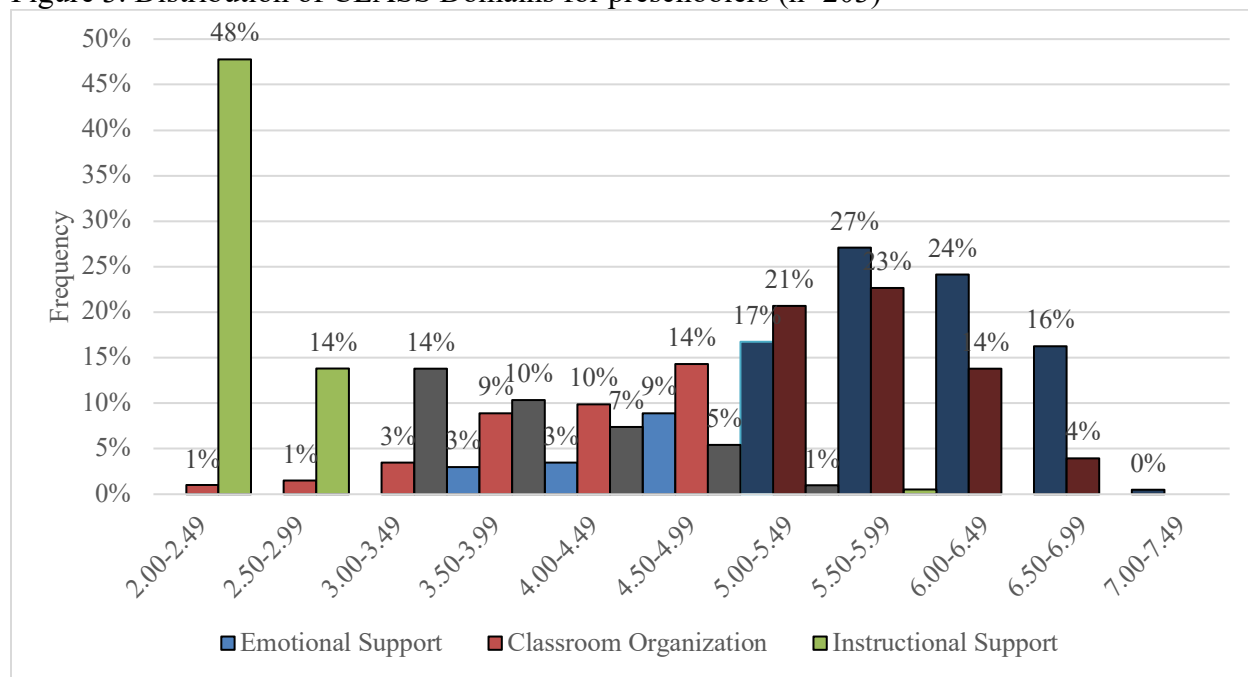


Figure 3. Distribution of CLASS Domains for preschoolers (n=203)



CLASS Domains

CLASS Infant

CLASS Infant consists of one domain: Responsive Caregiving (RC). This domain is focused on interactions that support positive infant-teacher interaction and promote language development. As noted, in Table 2, the overall mean score for Responsive Caregiving is 4.99, just shy of the score of 5, which would indicate a high level of quality. Scores ranged from 2.42 to 6.70, indicating some classrooms are demonstrating a high level of quality while others are not there. The highest dimension was Relational Climate (RC), where classrooms averaged 5.71. The lowest scoring dimension was Early Language Support (ELS), where programs averaged 4.06. ELS measures how well teachers use language stimulation and facilitation techniques such as teacher talk, repetition, and initiation of sounds and extension.

CLASS Toddler

The CLASS Toddler tool is appropriate for use with children from 15 to 36 months and consists of two domains: Emotional and Behavioral Support (EBS) and Engaged Support for Learning (ESL). The EBS domain is focused on the ways in which teachers support the emotional expression of children, the consideration of children’s perspectives, and the teacher’s sensitivity and responsiveness. Scores on the EBS domain were in the high range, with a mean of 5.78. Scores were the highest on Negative Climate (NC), with a mean of 6.76, indicating that teachers express negativity in their relationships with toddlers very infrequently. The lowest score in this domain was Regard for Child Perspectives (4.95). This dimension measures how

frequently interactions with children are focused on their interests and how much their independence is encouraged.

On the ESL domain, the mean score for classrooms was 3.07, with scores ranging from 1.00 to 5.67, indicating very few classrooms scored in the high-quality range in this domain. The highest scoring dimension in this domain was Facilitation of Learning and Development (FLD), with a mean score of 3.59. FLD measures the facilitation of material for children, and how well a teacher connects learning into routine activities and tasks. The lowest scoring dimension was Quality of Feedback (QF), with a mean score of 2.61. This dimension shows how well the teacher provides specific feedback to children and promotes understanding and learning that encourages children's participation.

CLASS Pre-K

CLASS Pre-K consists of three domains: Emotional Support (ES), Classroom Organization (CO), and Instructional Support (IS). The (ES) domain is focused on strengthening supportive relationships between teachers and children, which helps children enjoy the learning process, and their comfort in the classroom. The overall mean score for ES of 5.74 is in the high-quality range, with scores ranging from 3.60 to 7.00. This indicates that in general, most classrooms have good to excellent levels of emotional support. The highest scoring dimension is Negative Climate (6.76), indicating that, on average, classrooms exhibited few negative interactions between teachers and children or among peers. The lowest scoring dimension is Regard for Student Perspectives (4.84). Improving the quality of interactions under this dimension requires teacher flexibility and an emphasis on following the child's lead, providing children with choices, and allowing many opportunities for student expression.

The Classroom Organization (CO) domain is centered on using effective methods to manage instructional time, routines, and behavioral expectations. In addition, it includes the provision of activities that maximize children's interests and engagement. The average mean score for the Classroom Organization domain is 5.08. Scores above 5 denote teachers are using effective methods to prevent and redirect misbehavior, delivering organized and planned teaching, providing clarity of instructions, and minimizing time on managerial tasks. Scores ranged from 0.95 to 6.73. In this domain, the lowest scoring dimension was Instructional Learning Formats (4.37). Improving this dimension requires actively facilitating children's engagement in lessons, the use of many modalities to capture students' interest, orienting children toward the learning objectives, and maintaining interest and involvement in lessons and activities.

The Instructional Support domain captures interactions that foster and facilitate higher order thinking skills, promote language development, and expand children's understanding and learning. While critical for children's learning and development, this domain consistently scores lower across all preschool evaluations and systems. The average score was 2.76, and scores ranged from 1.00 to 5.92. Concept Development and Quality of Feedback both scored low in this domain (2.62 and 2.88, respectively). Concept Development includes using discussions and activities that foster higher order thinking, allowing students to be creative and generate products and ideas, connecting to the real-world, and applying previously learned content to new concepts. Quality of Feedback captures teachers' strategies for scaffolding learning, engaging in back-and-forth exchanges with students, encouraging students to persist when learning new things, providing specific feedback, and prompting students to explain thinking.

CLASS Domains for Selected Center Characteristics

Table 4 reports CLASS domain scores for selected program-level characteristics—program type, PTQ ratings, and urbanicity. These findings are also displayed in graphs in the appendix. Key findings include:

- In infant classrooms, licensed home-based programs and ministry programs scored slightly higher than center-based and other.⁶ In relation to PTQ ratings, classrooms with ratings 1 and 2 scored lower for CLASS Infants, and below 5, on average. Lastly, rural programs also scored lower than mid-sized and urban ones.
- In toddler classrooms, all program types scored similarly in EBS, but center-licensed programs and ministry programs scored slightly higher in ESL. In terms of programs by PTQ ratings, findings are more nuanced. Classrooms with ratings 1 and 2 scored lower in the CLASS EBS but were not different from those rated 3 in ESL. Classrooms rated 4 scored the highest on ESL. Programs in urban areas scored lower in both CLASS Toddler domains.
- For CLASS Pre-K, local education agency (LEA) classrooms scored significantly higher on all domains than the center licensed and ministry-based programs, particularly in CLASS CO, and higher than center-licensed programs on CLASS IS. As per PTQ ratings, while most programs scored similarly in CLASS ES and CO, higher rated programs (3 and 4) did score higher in CLASS IS, albeit still under 3 on average. Differences by urbanicity are minimal.

⁶Programs noted as “other” are those that are not classified by the Paths to Quality QRIS (i.e., school-based programs).

Table 4. CLASS domain mean scores by subgroups

	INFANT (n=39)	TODDLER (n=92)		Emotional Support	PRE-K (n=203)	Instructional Support
	Responsive Caregiving	Emotional and Behavioral Support	Engaged Support for Learning		Classroom Organization	
Facility Type						
Center-Licensed	4.91	5.86	3.17	5.71	5.00	2.63
Home-Licensed	5.15	5.70	2.90	5.67	5.02	2.63
LEA	.	.	.	5.98	5.74	3.41
Ministry	5.14	5.75	3.09	5.72	5.01	2.73
Other*	.	5.56	2.62	5.87	5.15	3.05
Quality Level						
1 and 2	4.72	5.53	3.03	5.73	5.02	2.42
3	5.12	5.73	2.96	5.73	5.07	2.85
4	5.01	6.07	3.39	5.78	5.08	2.79
Non-Rated	5.00	5.63	2.57	5.70	5.18	2.75
County Classification						
Mid-Sized	5.00	5.80	3.55	5.76	5.10	2.73
Rural	4.64	5.87	2.95	5.79	5.11	2.86
Urban	5.17	5.71	2.88	5.70	5.05	2.70
Community Poverty						
Low	4.97	5.76	3.08	5.73	5.05	2.73
High	5.05	5.85	3.01	5.77	5.18	2.84

*Programs noted as “other” are those that are not classified by the Paths to Quality QRIS (i.e., school-based programs that are legally license-exempt). Note: Two-tailed tests of differences in means were run between all groupings for each domain. Statistically significant differences were only found between LEA and Center-Licensed; between LEA and Ministry pre-K classrooms in the Classroom Organization domain; and between LEA and Center Licensed pre-K classrooms in the Instructional Support domain. The range of classrooms for each subgroup reported in the table above was from 4 to 92, except for the category of “Other” under facility type for infants for which only one classroom (an infant/toddler program located in and run by a school district) was captured and therefore not reported.

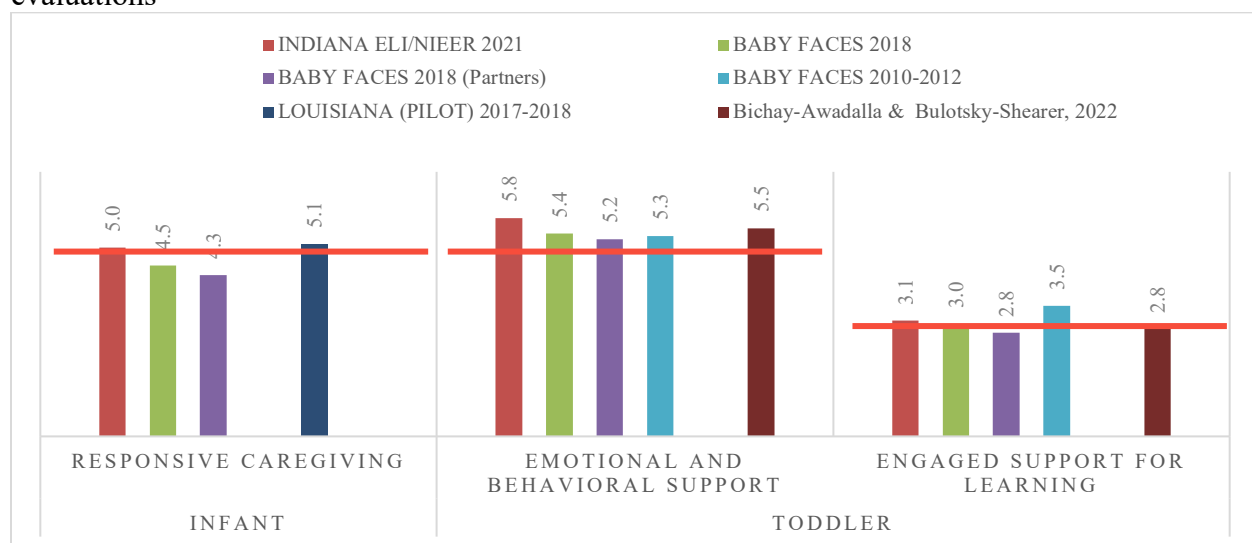
CLASS Comparison to Other Programs

CLASS Infant and Toddler tools have been less widely used in the field of ECE than CLASS Pre-K. Therefore, there are not many representative state or city evaluations to draw information from to compare results to. Therefore, to provide a benchmark to interpret these scores for Indiana, we used a recent report from the Early Head Start Family and Child Experiences Survey, (Baby FACES; Xue., 2021) which found average CLASS Infant scores on Responsive Caregiving of 4.52 (with a minimum of 2.31 and a maximum of 6.69) across 149

classrooms.⁷ In this study, the specific dimensions under the RC domain scored 5.39 on average for Relational Climate, 5.18 for Teacher Sensitivity, 3.84 for Facilitated Exploration, and 3.64 for Early Language Support. In comparison, the scores found using the CLASS Infant tool for the sample in this study are above those summarized in Baby FACES across all four dimensions.

Similarly, the Baby FACES study included a sample of 713 toddler classrooms that were rated using the CLASS Toddler. The researchers summarize average scores of 5.37 in Emotional and Behavioral Support and 2.96 in Engaged Support for Learning. The observed scores for the Indiana sample in this study outperform those in the Baby FACES study for all domains and dimensions in the CLASS Toddler, except for Language Modelling. A comparison with such programs is illustrated in Figure 4.

Figure 4. CLASS Infant and Toddler scores in comparison to selected state or city program evaluations

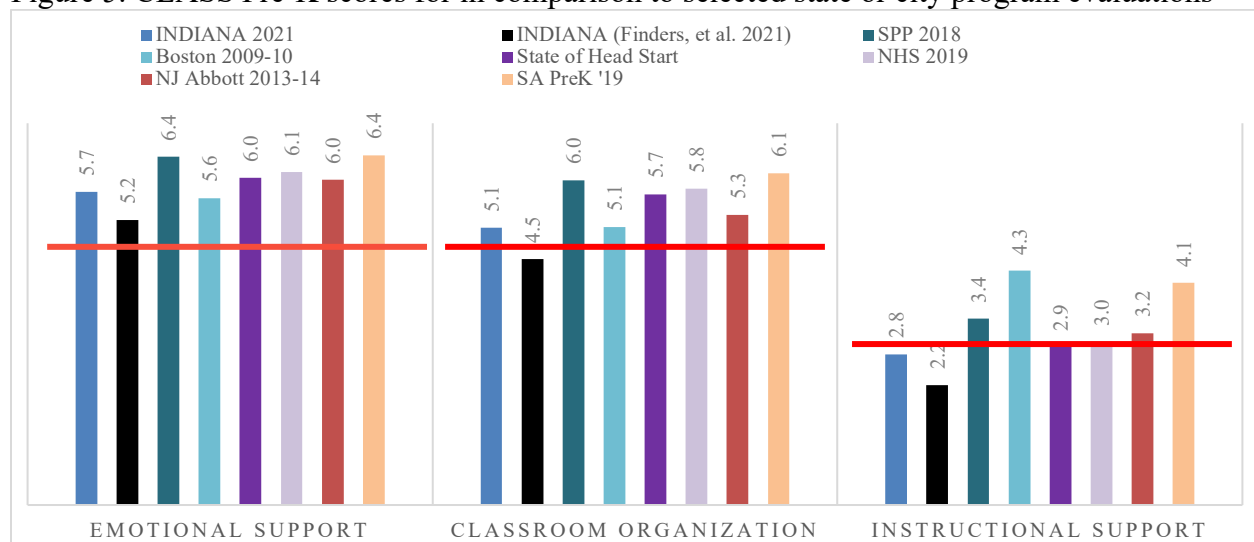


Sources: Xue, et. al. (2021) report Baby FACES 2018 results; Baby FACES results are reported in Xue, et. al. (2022); Bandel, et. al. (2014) report Baby FACES 2010-2012 results; Bichay-Awadalla & Bulotsky-Shearer (2022) for the toddler results reported; LA results are reported in LA Department of Education (undated).

In contrast, there are many studies of state and city preschool programs that have included the CLASS. Patterns for the CLASS Pre-K scores for preschool classrooms in relation to those of other cities and states are reported in Figure 5. This figure includes high-quality city-funded programs. It is worth highlighting that overall pattern across domains for the Indiana sample mirrors those of other studies, with higher CLASS ES than CLASS CO, and with CLASS IS scores being much lower. Average CLASS ES scores in the sample are similar to those of many other localities, including Boston, but trail behind programs in New York City, San Antonio, Seattle (SPP), and others. For CLASS CO and CLASS IS, scores for programs in Indiana lag those of most other programs illustrated.

⁷ Table V.11., Page V.15. <https://www.acf.hhs.gov/opre/report/early-head-start-programs-staff-and-infants/toddlers-and-families-served-baby-faces>

Figure 5. CLASS Pre-K scores for in comparison to selected state or city program evaluations



Note: SPP is Seattle’s preschool program, reported in Nores, et. al. (2019); NJ Abbot is New Jersey’s preschool program, reported in NIEER (2014), and SA Prek is the San Antonio PreK program in Decker-Woodrow, et. al. (2019). State of Head Start is report in Barnett, et. al. (2016). Finders, et. al. (2021) reports other Indiana results. Boston results are reported in Weiland, et. al. (2013). National Head Start scores are reported in Head Start, ECLKC (2020).

Environmental Checklist

Observers also simultaneously collected basic information on the environment using a NIEER-developed checklist to capture variations in classroom characteristics and practices. The checklist covered six main areas: furniture, room arrangement, classroom display, health and safety, teacher and peer interactions, and daily schedule. Table 4 displays the percentage in which the environment was adequate for children.⁸ The findings indicate some specific areas for improvement in relation to access to materials, blocks, play centers, dramatic play areas, child-related and child-developed displays, in classroom restrooms or changing tables for individualized routines, scheduling, and book reading.

⁸ Adequate in this context translates to furniture or materials assessed were present and in good shape, sufficient for all children, that the arrangement was based on the play areas and included blocks and dramatic play or relevant areas by age group, that aspects of health and safety did not present major hazards and sufficient supervision was provided at all times, as well as that interactions with adults where warm, supportive, responsive, sensitive, and respectful, with opportunities for peer interaction present and encouraged.

Table 6. Percentage of classrooms with adequate environment indicators

Environment Indicators	Infants/Toddlers	Pre-K
Furniture		
Convenient routine furniture	95%	94%
Play kitchen, sand/water table, easel*	n/a	72%
Soft toys/furnishings	83%	62%
Clean and in good repair	99%	97%
Room Arrangement		
Arranged space for activities	88%	84%
Play centers	72%	84%
Block area	73%	80%
Dramatic play area	70%	83%
Organized materials	85%	64%
Classroom Display		
Accessible and related to children	80%	71%
Toddler/pre-k art displayed	78%	44%
Individualized work*	n/a	47%
Health and Safety		
Diapering/restrooms in classroom	83%	59%
No major hazards	88%	82%
Adequate supervision	98%	97%
Individualized child routines**	94%	n/a
Emergency essentials	99%	96%
Teacher Interaction		
Warm and supportive staff	98%	94%
No unpleasant/harsh interactions	92%	88%
Warmth and appropriate physical contact	90%	90%
Staff responsive, sensitive, respectful	97%	97%
Staff enjoy children	98%	98%
Peer interactions possible/encouraged	99%	93%
Peer interactions modeled and positive	95%	97%
Daily Schedule		
Written schedule for staff and kids*	n/a	67%
Indoor and outdoor play	88%	95%
Balanced schedule	91%	91%
Book reading	71%	74%

*Preschool classrooms only. **Infant/toddler classrooms only. n=88 and 127, respectively.

In addition, observers were also asked to catalog furniture and materials that were accessible to children and in good condition (see Appendix Table B.1). There was an observed lower prevalence of age-appropriate art materials, soft furniture, book racks and shelving units, easels, sand/water tables, workbenches, and other materials that support various types of dramatic play.

Analyses assessing differences in the environmental checklist showed that programs serving infants/toddlers and preschoolers with PTQ ratings of 3 & 4 had a higher prevalence of the components captured with the checklists. Similarly, urban centers also showed a higher prevalence of indicators in the checklist, as well as center licensed and LEA programs.

2. Program components and key characteristics

In addition to observational data, we also collected data from program directors. In this section, we report on data collected from 230 programs (some directors filled out the survey for multiple programs and some directors filled out the survey and dropped out of the study for the observation and child assessment component). We asked directors to report on program characteristics, such as number of teachers and assistant teachers in the program, the ethnic and racial breakdown of children in the program, and the typical classroom size. Details of this survey are reported below and broken into differences by region, PTQ rating, and program type. Notable findings from the survey are discussed. Refer to tables B.2 – B.7 in the Appendix for a detailed breakdown.

Classroom Characteristics by Program Type

We found that on average, programs reported employing five teachers and four assistant teachers, but this varied greatly by program type. Center-based programs employed, on average, ten teachers and seven assistant teachers, while family child care programs (FCCs) employed two teachers and one assistant. Ministry-based and LEA programs fell in the middle, with an average of seven lead teachers and five assistant teachers, and five lead teachers and five assistant teachers, respectively.

Average enrollment also varied by program type. Center-based programs had an average enrollment of 71 children, which was similar to programs categorized as “other” (i.e., programs who are legally license-exempt and not eligible for PTQ ratings, mostly in public and private schools) with an average of 72 children. FCCs reported enrolling 13 children on average, while LEAs had 65 and Ministries had 53.

We used the average teacher-to-child ratio observed during the fall 2021 classroom observation to calculate a measure of the average teacher-to-child ratio in classrooms within each program. We found these varied by age. On average, there were 4.4 infants per adult, four toddlers, and 5.9 preschool-age children. This varied by program type: ministry-based programs reported the largest ratio with 6.7 preschoolers per adult, whereas FCC had the lowest with 4.6 preschool-aged children per adult.

Directors also reported on the typical number of children they place in a classroom, which varied by program type. For the age range 0-2, center-licensed reported the highest number of children per classroom at 9.2, while FCCs reported the lowest at 5.7. Other program types fell in the middle, with “other” at 6.2 and ministry at 8.5. These numbers were higher for classrooms of children ages 3-5. Center-licensed programs reported the highest number, with an average of 20.9 children per classroom. FCCs again reported the lowest with 6.9 children per classroom. Other program types were in the middle of these, with LEAs at 17.8, ministries at 16.7, and “other” at 16.7.

Tuition varied by age and program type as well. Infant tuition was the highest, with an average of \$170.90 per week for children under 12 months of age. Center-licensed programs reported the highest tuition, averaging \$239.10 per week, while the lowest was programs categorized as “other” at \$118.30 per week for infants. Center-licensed programs were also the most expensive for toddlers, averaging \$209.50 per week compared to an average of \$167.70 for all programs for toddlers. Programs categorized as “other” once again reported the lowest tuition,

with an average of \$105.80 per week for toddlers. Preschool (ages 3-5) tuition was the lowest across age groups, with programs charging on average \$158.30 per week. Center-licensed programs charged the most, at \$196.20 per week. LEAs had the lowest weekly tuition reported, at \$82 per week. As a whole, 69.7% of programs reported charging tuition for the early education program (not including wrap-around services). While 100% of programs that were categorized as “other” reported charging tuition, only 45.3% of FCCs did.

We also asked programs whether they provide certain types of discounts, and if so, to describe them. On the question, “In addition, please let us know if you provide any discounts for tuition: Sibling discount, specify,” 122 respondents answered. Of those responses, the majority (68%) responded describing their sibling discount. Respondents wrote in examples of discounts, e.g., “*Sibling discount 10% off youngest child, military (active) discount 10% off,*” and “*\$10 off for siblings.*” Others wrote about different types of discounts, such as military and church parishioner, and 18.8% of the 122 respondents wrote they did not provide a sibling discount. We also asked directors to respond if they provided another type of discount. Of the 73 responses, the most frequent was providing no discount (28.1%); however, others reported they provided discounts through things like scholarships, grants, or subsidies under the Child Care and Development Fund (CCDF; 22.5% offered these types of discounts), and others mentioned providing an employee discount (18.3%). Still, others wrote about the varied ways they meet the needs of parents while keeping their own costs under control, such as “*We charge \$25 more for children under 18 months, and we have a pay on time discount. We also have part time and preschool only options.*”

Classroom Characteristics by PTQ Rating

We were also interested in exploring the differences in classroom characteristics as it relates to programs’ PTQ rating. Some notable differences emerged in relation to teachers, class sizes, and tuition.

In terms of teachers employed, while the mean across programs was five, programs rated 1 and 2 had, on average, four teachers, while programs rated 4 had, on average, seven teachers, with the rest of the programs falling between this range. Programs also had an average of four assistant teachers, but this number was highest for unrated/0 and 4-rated programs (five, on average), and lowest for 1- and 2-rated programs (three). Average enrollment also differed by PTQ rating. While the average enrollment was 47 children, 1- and 2-rated programs had the lowest number of children at 31, while unrated and 4-rated programs had the highest at 58 and 56, respectively.

For preschool-aged children, the observed ratio of teachers to students in the classroom did not differ much by PTQ rating. Programs had an average of six children aged 3-5 per adult, while unrated/0 programs had the highest ratio at 6.7, and 1- and 2-rated programs had the lowest ratio at 4.7. Infant ratios looked similar, with an average of three children per adult, while 3- and 4-rated programs had the highest ratio at 3.2, and 1- and 2-rated programs had the lowest at 2.6. Toddler ratios were also similar across PTQ rating: while the total mean was 4.0, 4-rated programs had the lowest at 3.6, and unrated/0 and 3-rated programs were the highest at 4.3. When directors reported on the typical number of children in their classroom (ages 0-2), while the average was 7.0 for all programs, 4-rated programs reported the lowest number at 6.1, and unrated/0 programs reported the highest at 8. When asked about the typical number of children

ages 3-5 in the classroom, the average was 14.6, but 1- and 2-rated programs reported the lowest at 12.3, and unrated/0 reported the highest at 16.3.

While the ethnic and racial breakdown of programs was fairly consistent across PTQ ratings, there were some differences. Notably, while the mean percent of Black/African American children in programs across the sample was 15.7%, 1- and 2-rated programs reported 23% and 0/unrated programs reported 18.5%, while 3- and 4-rated programs had numbers below the mean. And while the mean percent of Hispanic children was 4.9%, both 4 and unrated/0 programs reported higher percentages of Hispanic children, with 8.2% and 6.4%, respectively.

Finally, tuition varied considerably by PTQ rating. For children younger than 12 months, the mean weekly tuition was \$170.90, but 4-rated programs reported the highest weekly tuition at \$215/week, and 3-rated programs reported the lowest at \$153.60, with other programs falling in between these numbers. For tuition for 1- to 3-year-olds, the average weekly amount was \$167.70, but 4-rated programs again charged the most at \$193.10 per week, and 3-rated programs charged the lowest at \$151.30, with other programs falling between these amounts. Finally, the ages 3-5 tuition average was \$158.30, but 4-rated programs had the highest charge at \$177.60, and unrated/0 programs had the lowest at \$136.30. Average rates by age translates to annual tuition rates (for 50 weeks of service) of about \$8,000 to 8,500 per year, and can be as high as \$11,955 in center-licensed programs for children under 12 months (for 50 weeks of service).

We conducted additional analyses regarding the use and type of curricula across PTQ rating. Findings related to the use of formal curricula include:

- About 14% of programs stated they did not use a formal curriculum, most commonly reported for programs rated 0/unrated (25%) and 1/2 rated programs (25.4%).
 - In comparison, PTQ 3- and 4-rated programs reporting no use of a formal curriculum was very low, at 4.9% and 7.5%, respectively.
- Approximately 66% of directors reported they use a curriculum with infants and toddlers.

We then asked directors to respond to the question, “What curricula are being used in your preschool program? (Check ALL that apply) - Other (please specify).” Of the 112 directors who selected this choice, we found:

- Of the 125 curricula described by directors (some described multiple), the most frequent description was of a school-created curriculum (25.9%), with directors writing in responses such as, “*We created an infant sensory curriculum along with a curriculum that ranges from toddler to first semester Kindergarten so as our enrollment ages change we have curriculum to meet the changing ages of our enrolled children,*” and “*School created play based curriculum.*”
- While an average of 32.2% of programs reported using Creative Curriculum, 43.4% of 4-rated programs reported using this, while only 9.4% of 0/unrated programs reported using this curriculum.
- Just over half (50.89%) selected “other” and described a program we did not list in the choices, ranging from Carol’s Curriculum to Project Lead the Way to Pinnacle.
- The use of a school-created curriculum was much more common among programs rated 3 and below. While an average of 19.1% of programs reported using a school-created curriculum, this number was 25% for 0/unrated programs, 20.6% for 1- to 2-rated programs, and 22% for 3-rated programs. Just 9.4% of 4-rated programs reported using a school-created curriculum.

- When directors wrote in that they used “other” as a curriculum, 29 of them (27.6%) included a response that indicated their school or they themselves created their curriculum or used a variety of curricula together to create their own approach. Example responses include, “*one I created with a coach from spark,*” “*our own hands-on curriculum,*” and “*We use a combination of Curriculum: Our Own/Little Passports/Mother Goose.*”

Classroom Characteristics by Urbanicity

Our final analyses centered on whether there were differences by program urbanicity. Program counties were divided into three categories: rural (e.g., Marshall, Parke, Whitley), mid-sized (e.g., Henry, Clinton, Cass), and urban (e.g., Marion, Allen, Madison). We then looked at whether there were program differences related to these different regions.

We found that the number of teachers per program was lowest in rural regions. While the mean was 5 and rural regions also had an average of 5, both urban and mid-sized regions reported an average of six teachers per program. Number of assistant teachers was the same across programs, with four on average.

Average enrollment was also smallest in rural regions. Forty-four children, on average, were enrolled in these programs, compared to 46 in urban regions and 52 in mid-sized regions. The observed student-to-teacher ratio also differed as a function of region. All programs had the lowest ratios in rural classrooms, and the highest ratios in mid-sized classrooms, with urban falling in between. While programs averaged six children per teacher in preschool classrooms, mid-sized programs had a higher number, at 7.3, and rural and urban were at 5.6 and 5.7, respectively. This pattern was consistent for infants. While the mean was 3, mid-sized was higher at 3.6, and urban and rural were lower at 2.9 and 2.7, respectively. Finally, for toddlers, the observed mean ratio was four children per adults, but rural was lowest at 3.6, and urban and mid-sized were at 4.1 and 4.3, respectively.

There were also differences in the ethnic/racial composition of classrooms as a function of region. While the average percent of white children in classrooms was 68.1%, rural regions reported numbers above the mean at 83%, as did mid-sized at 77.5%. Urban directors reported 51.1% of children were white. These numbers also differed for children identifying as Black/African American. Directors reported on average 15.7% of Black/African American children in their programs, but urban reported the highest percentage at 26.9%, with mid-sized reporting 10.6% and rural reporting 1.9%. Special education needs were also the highest in rural regions. While the mean percentage of children with special education needs was 6.5%, rural regions reported this was the case for 8% of children, compared to 3.8% in mid-sized and 6.7% in urban.

Across the board, tuition was highest in urban areas and lowest in rural. Rural programs reported average weekly tuitions of \$115.90 for under 12 months, \$111.30 for ages 1-3, and \$117 for ages 3-5. In mid-sized programs, tuition was next-highest, with charges of \$163.60 weekly for infants, \$165.10 weekly for ages 1-3, and \$159.20 weekly for ages 3-5. In urban areas, tuition was reported as \$206.90 weekly for infants, \$202.50 for ages 1-3, and \$184.10 weekly for ages 3-5. For tuition charges, while 69.7% of programs reported charging tuition, this number was below the mean in rural programs (62.3%), and higher for urban programs (74.7%).

Finally, there were some differences in curriculum usage related to region. While Creative Curriculum was used in 32.2% of programs, urban programs used it at a slightly higher

rate (35.3%). Frog Street was used in 3.5% of programs, but rural programs used this at a rate higher than average (6.5%). Finally, 25% of mid-sized programs used a school-created curriculum, which was higher than the mean (19.1%), and higher than the rates of school-created curriculum usage for urban (17.6%) and rural (16.9%) regions.

Program Responses to COVID-19

Finally, we wanted to get a sense of the ways in which the COVID-19 pandemic was affecting programs, both in our sample and in the state of Indiana. We assessed this two ways. First, we interviewed nine key stakeholders in the state of Indiana during January and February 2022 about how the pandemic was affecting the ECE sector across the state, as well as what kinds of supports programs needed looking into the future (The draft memo is in Appendix C). State leaders reported that ECE programs were experiencing extreme stress due to the major surge of the Omicron variant in January, which resulted in providers being “beyond exhausted.” As it has nationally, the pandemic brought into stark relief the fundamental challenges of creating a high-quality system of early care and education. Respondents reported that the staffing crisis is at historic levels and was the greatest barrier to improving quality. All things related to securing and retaining well-qualified staff - wages, preparation, capacity, supply—are basically decimating the ECE system in IN. This was confirmed by the directors in the administrator survey, as reported below.

We also asked directors several questions on the administrator survey about how the pandemic was affecting their operations, finding that staffing challenges and quarantines were prevalent. We asked programs to respond to whether they had closed the program due to suspected or positive COVID-19 tests of children or staff, and 59.2% responded that they had (note that the majority of responses were recorded before September 2021, which was before the winter 2021-22 Omicron surge but during the Delta surge of summer 2021). We then asked directors to respond to the question, “Please provide how many times you have had to close the program due to suspected or positive COVID-19 tests of children or staff.” The most common response to this question was one time, with 44% of the 128 respondents denoting they closed one time. More frequent closures were less common: 29% of programs noted two closures, 16% noted three closures, and a few programs noted closures in the range of four to eight times. Some programs reported that classrooms had been closed numerous times but not the program (e.g., “only classrooms 2 times in 21-22”), and while each closure was tabulated individually (whether it was a classroom or program), the closure of individual classrooms versus an entire program should be noted as differentially affecting children.

We then asked directors to report how long they closed classrooms or programs if they did so for COVID-19. The most common response was for two weeks (50% of 127 respondents. Note, we coded the high end of a range if they responded with a range such as 10-14 days). The next most common length of closure was for one week (17%), followed by a timeframe between eight and 13 days (17%). Very few programs closed for less than seven days (12%), although some programs reported they had not had to close yet. We also asked directors if they offered any virtual or hybrid options for children ages birth to five; most commonly, they did not (81.4%), although some programs reported offering Zoom meetings or Google hangouts. Directors wrote in, “*Teacher created video recordings of lessons, songs, read alouds etc. are posted to my Class Dojo page to share virtually with children and families while they are quarantining,*” and “*When closed to Covid- teachers prepped "Preschool in a bag", zoomed*

story time, created FB challenge (go find on a walk and post) scheduled individual phone calls daily.”

We also wanted to get a sense of whether directors were having staffing or enrollment challenges related to COVID. When asked if enrollment was at capacity, only 36.5% of directors reported that they were fully enrolled. We followed up by asking directors if they responded “no” to being at full capacity, to describe. Directors provided a range of responses, but it was clear staffing was a challenge, with 23% of the 115 responses mentioning staffing being an issue (e.g., “*not enough staff to take all the additional children,*” and “*We do not have staff to open our third classroom,*” and, “*We closed an infant classroom due to lack of staff*”). Other responses centered on how many slots programs had unfilled, which ranged from being very close to full capacity to having more than half of spots open (e.g., “*my capacity is 90, I usually have 40 but now have 25*”). Sixteen percent of respondents specifically mentioned leaving spots open or having spots open due to COVID (e.g., “*my enrollment declined when covid hit. Had to close my second site*” and “*70% due to covid policy*”).

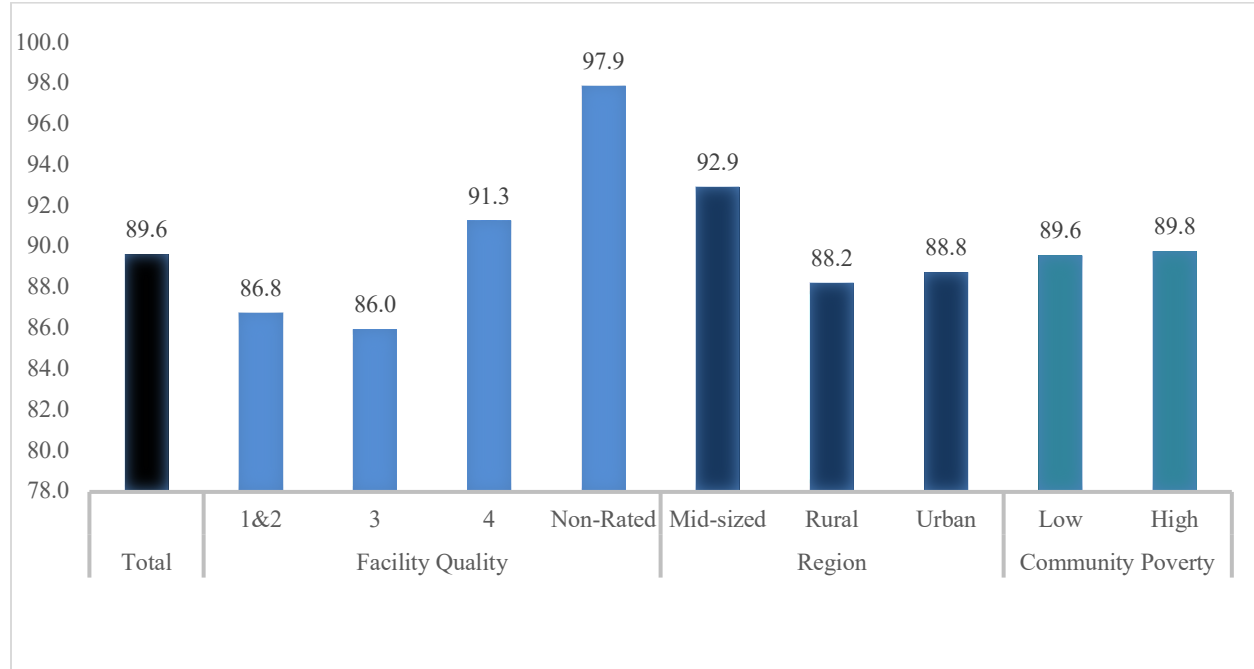
3. The state of children in Indiana’s ECE programs

Infants and Toddlers

This evaluation measured infant and toddler developmental levels in vocabulary (receptive and expressive), cognitive development, and socio-emotional development using the above-mentioned Bayley Scales of Infant Development IV. Infant and toddlers scores for the 2021 baseline measurement for the overall sample, and for selected subgroups of interest, are shown below (reported in detail in Appendix C). Figures 6-9 report baseline standardized scores, which allow comparing the cohort of children in the sample in relation to average children their age. These measures are standardized at a mean (average) score of 100 and with a standard deviation of 15. Standard scores under 100 points signify developmental levels below average for children this age. Research associates early developmental scores to cumulative differences in developmental opportunities. (Bassok, Finch, Lee, Reardon, & Waldfogel, 2016; Chaudry, Morrissey, Weiland, & Yoshikawa, 2021; Markowitz, Bassok & Hamre, 2018; Reardon & Portilla, 2016) We report only baseline scores, which do not represent the contribution of any specific program to infant and toddlers’ development, but rather provided a snapshot of the state of infant and toddlers in ECE programs across the state. Differences reported are along specific child characteristics and are not intersectional. Therefore, these do not show the confluence of multiple social and demographic aspects that may relate to their early care and education opportunities.

Baseline language development for infant and toddlers is reported in Figure 6. Children in the sample average a language standardized score of 89.6 (with a standard deviation of 18.3, and scores ranging between 45 and 130). That is, children in the study scored under the norm relative to children their age. Children in higher rated programs had slightly higher language scores, and these were highest for non-rated programs and in mid-sized communities.

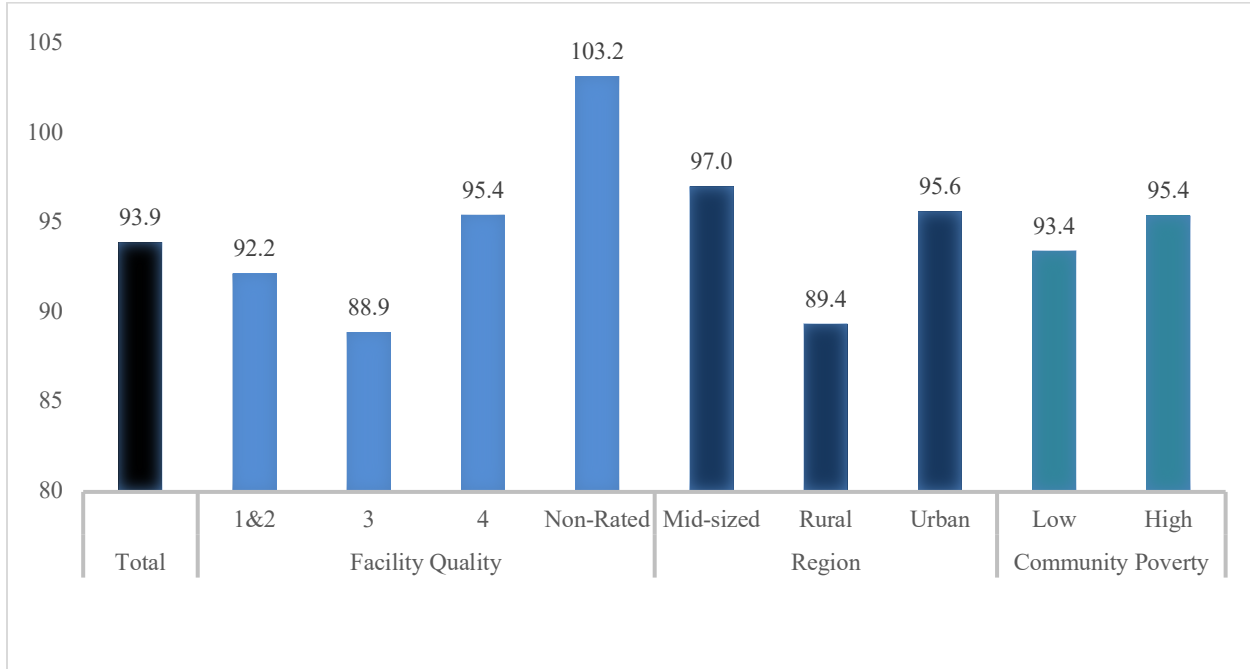
Figure 6. Bayley language standardized score by child and center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard scores between children in non-rated and programs rated 1, 2, and 3.

Standardize scores for cognitive development are shown in Figure 7. Infants and toddlers in the study scored on average under the levels expected due to maturation. Children in the sample average a cognitive standardized score of 93.9 (with a standard deviation of 16.8 and scores ranging between 55 and 130). Children in non-rated centers and centers rated at 4 evidenced average higher levels in cognitive development in relation to peers their age and in the study. Average cognitive development scores for children were on average also higher in programs in mid-sized communities and much lower in rural communities.

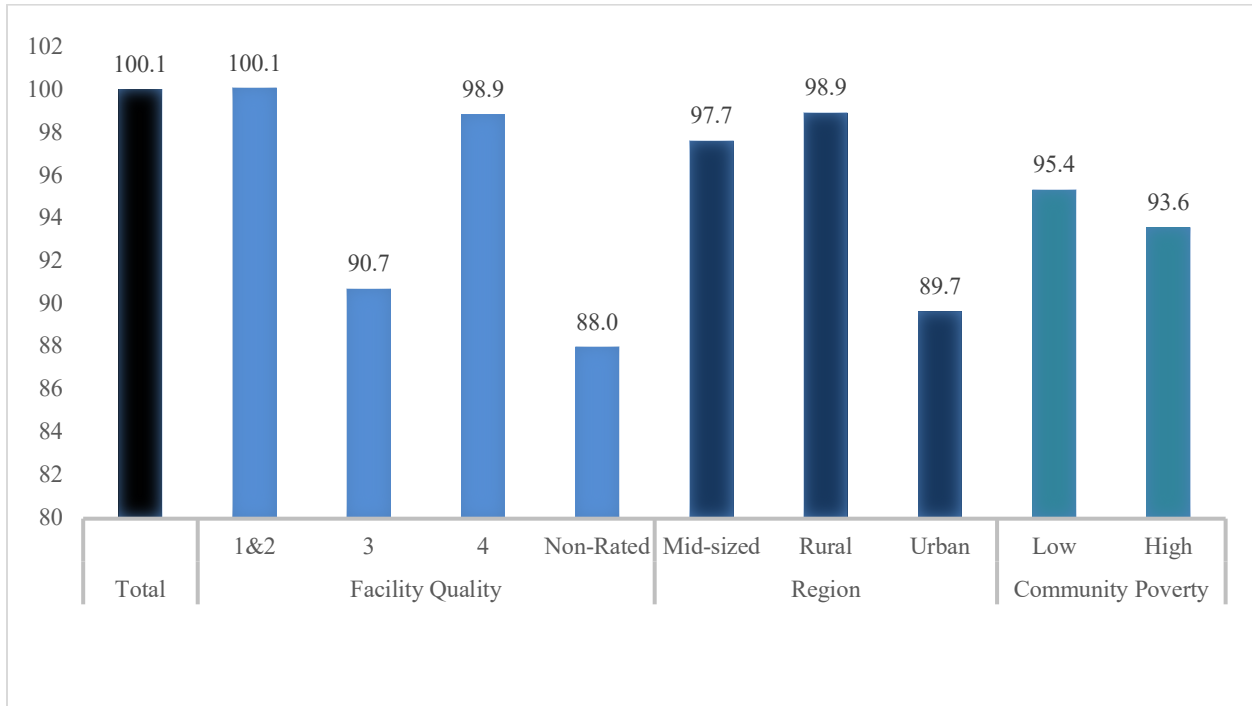
Figure 7. Bayley cognitive standardized score by child and center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard scores between children in non-rated programs in contrast to all other programs, and between children in a rural area in contrast to children in mid-sized and urban areas.

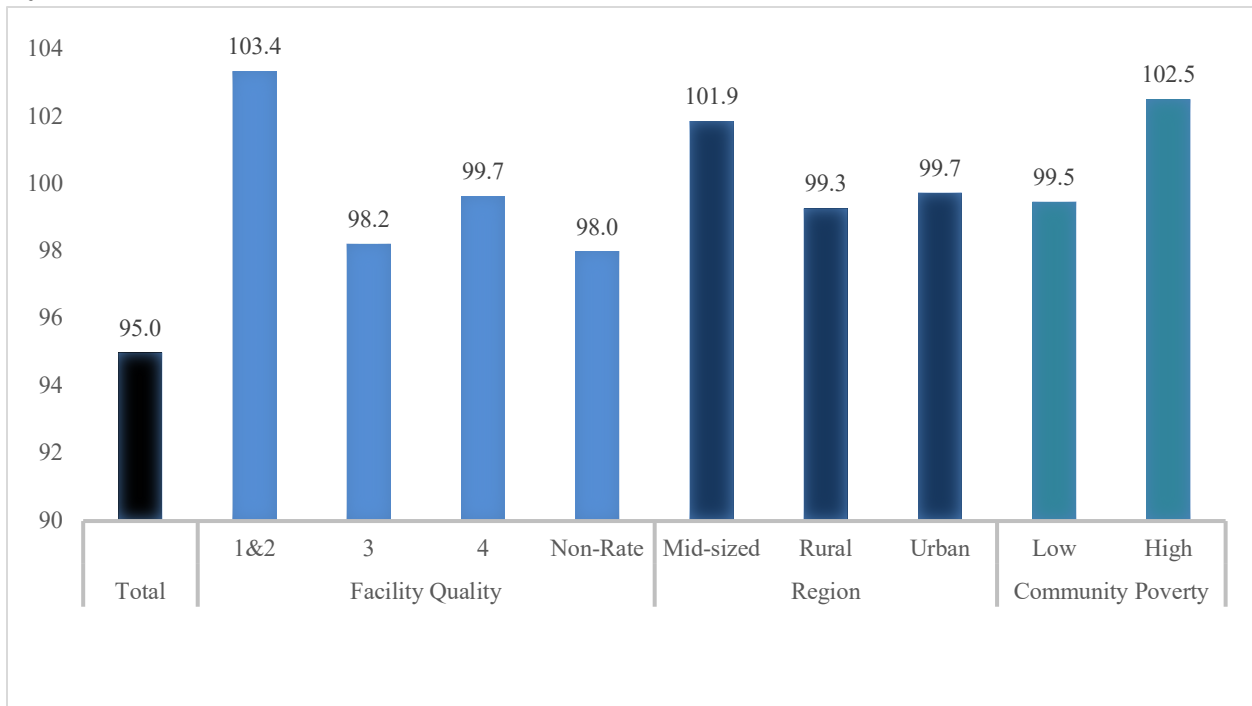
Figure 8 reports average standardize scores for teacher-reported socio-emotional development and Figure 9 reports these for socialization. Infants and toddlers in the study scored close to average levels as expected due to their age. Children in the sample averaged socio-emotional and socialization standardized scores of 95.0 (with a standard deviation of 21.6, and scores ranging between 55 and 145) and 100.1 (with a standard deviation of 16.5, and scores ranging between 45 and 155), respectively. Scores varied across quality levels without evident patterns related to quality ratings. Socio-emotional scores were higher in mid-sized and rural communities, and higher in low poverty areas. Socialization scores, on the other hand, were higher in mid-sized and high poverty areas.

Figure 8. Bayley socio-emotional standardized score by child and center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard scores between children in non-rated programs in contrast to children in programs rated 1, 2, and 4, and between children in urban area in contrast to children in mid-sized and rural areas.

Figure 9. Bayley socialization standardized score by child and center characteristics, baseline 2021 scores



Note: No statistically significant group differences were detected.

Preschool-Aged Children

This evaluation measured child levels in receptive vocabulary (using the Peabody Picture Vocabulary Test), literacy (using the Woodcock-Johnson Tests of Achievement Letter-Word subtest), and math (using the Woodcock-Johnson Tests of Achievement Applied Problems subtest). Moreover, it evaluated executive functioning (EF) using two measures: the Dimensional Change Card Sort Game (DCCS) and the Peg Tapping task (PT). Socio-emotional development was measured with the ASEBA teacher reported form (C-TRF).

Child scores for the 2021 year for selected subgroups of interest are shown below. These results are reported in detail in Appendix C (including standard deviations). Figures 9-12 report baseline standardized scores for the PPVT IV (vocabulary) and Woodcock-Johnson (literacy and math) assessments, which allow comparing the cohort of children in the program in this school year in relation to average children their age. Similar to the infant and toddler measures, these measures are also standardized at the mean score of 100 and with a standard deviation of 15. This means that standard scores under 100 points signify scores below average for children of this age. This report shows a snapshot based on the study sample, which provides some initial evidence of the status of preschool age children across the state.

Figure 9 shows baseline scores for receptive vocabulary, language, math, and executive function. Overall, children in the sample average a receptive vocabulary standard score of 101.2, with a standard deviation of 16.5 and scores ranging between 46 and 154. As a reference, sample children score on average above children in the fall 2019 FACES study of Head Start, where children scored on average at 81.4, with an SD of 14.8 and a range of scores of 40 through 132).⁹ The WJ-LW is a measure that captures emergent literacy. On average, children in the sample score at 91.7, with a standard deviation of 13.7 and a range between 51 and 160. Children in this sample also scored above the 2019 FACES Head Start study sample, which scored at an average 86.4 with a standard deviation of 13.4 and a range between 52 and 148.¹⁰ The WJ-AP measures emergent math in children. Children in the sample average a score of 94.1, with a standard deviation of 15.0 and a range between 41 and 138. In math, children also scored above the 2019 FACES Head Start study sample, which scored an average 80.3 with a standard deviation of 16.1 and a range between 41 and 126.¹¹

Panel B show baseline scores in the DCCS and Peg Tapping (executive function) and the C-TRF (socio-emotional). As a reference, the Learning-Related Cognitive Self-Regulation School Readiness Measures for Preschool Children Study (aka the Self-Regulation Measurement Study) (Meador, et. al., 2013) reports average DCCS scaled scores of 1.42 at 51–53 months and 1.62 at 57–59 months in the and average PT scores of 6.02 at 51–53 months and 8.80 at 57–59 months. The DCCS includes aspects of inhibitory control, short-term memory, and attention shifting. Children in the sample average a score of 13.4, with a standard deviation of 6.1 and a range between 0 and 24. The average scaled score for children in the sample was 1.7, with a standard deviation of 0.8 and a range between 0 and 15. The metric allows interpreting these

⁹ See Table B.4. on page 80 in: Kopack Klein, A., Aikens, N., Li, A., Bernstein, S., Reid, N., Dang, M., Blesson, E., Rakibullah, S., Scott, M., Cannon, J., Harrington, J., Larson, A., Malone, L., & Tarullo, L. *Descriptive Data on Head Start Children and Families from FACES 2019: Fall 2019 Data Tables and Study Design. OPRE Report #2021-77*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research, and Evaluation. <https://www.acf.hhs.gov/opre/report/descriptive-data-head-start-children-and-families-faces-2019-fall-2019-data-tables-and>

¹⁰ Ibid. See Table B.8. on page 84.

¹¹ Ibid. See Table B.11. on page 87.

scores in relation to the Vanderbilt study referenced above (as reported in Table C.8). Scores are slightly above those found for children in the Seattle Preschool Program (SPP) in a 2018-2019 evaluation.¹² For Peg Tapping, children in the sample average a score of 7.5, with a standard deviation of 6.3 and a range between -1 and 16.

Figure 9. Baseline scores in Vocabulary, Literacy, Math, and Executive Function

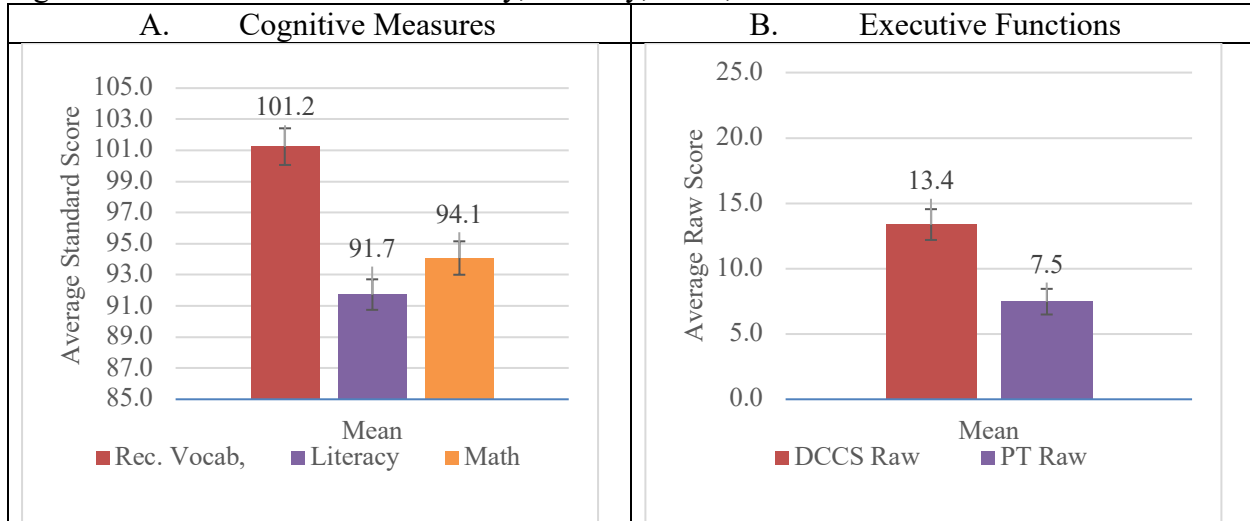
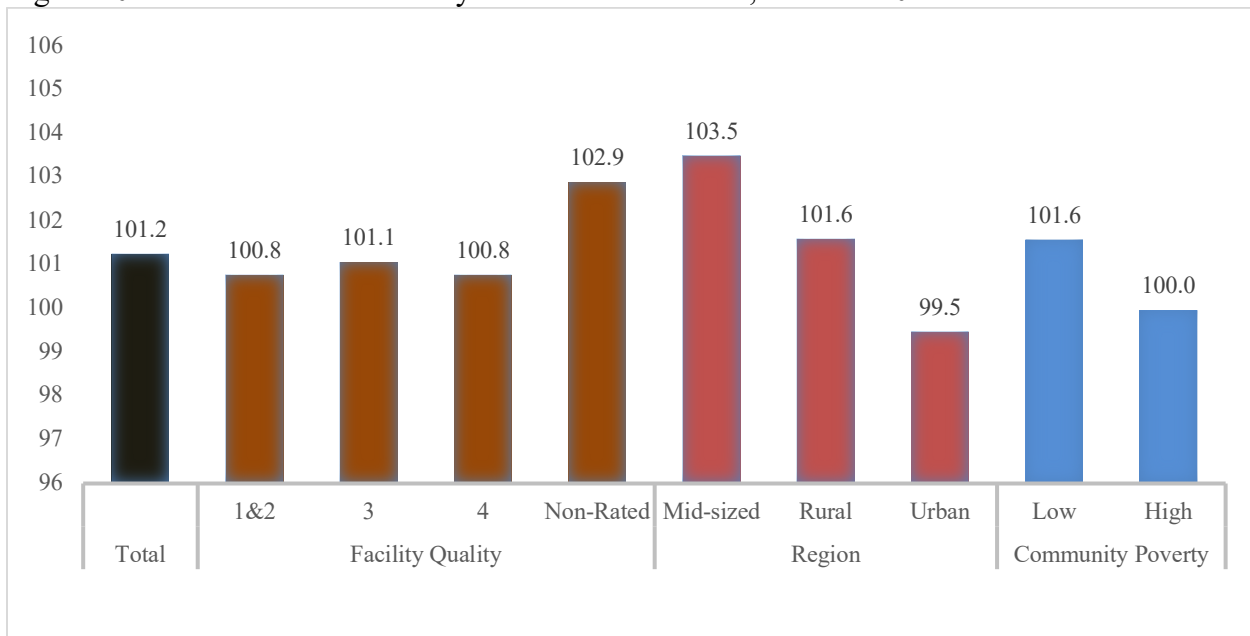


Figure 10 reports child average receptive vocabulary scores by center characteristics. On average, non-rated centers (predominantly school-based) score slightly higher, as well as centers in mid-sized locations and centers in low poverty areas.

¹² See Nores, M., Barnett, W.S., Jung, K., Joseph, G. & Bachman, L. (2019). Year 4 report: Seattle Preschool Program evaluation. New Brunswick, NJ: National Institute for Early Education Research & Seattle, WA: Cultivate Learning; Page 55. https://nieer.org/wp-content/uploads/2018/10/SPP-Evaluation-Year-4-Report-FINAL_v9.30.19-.pdf

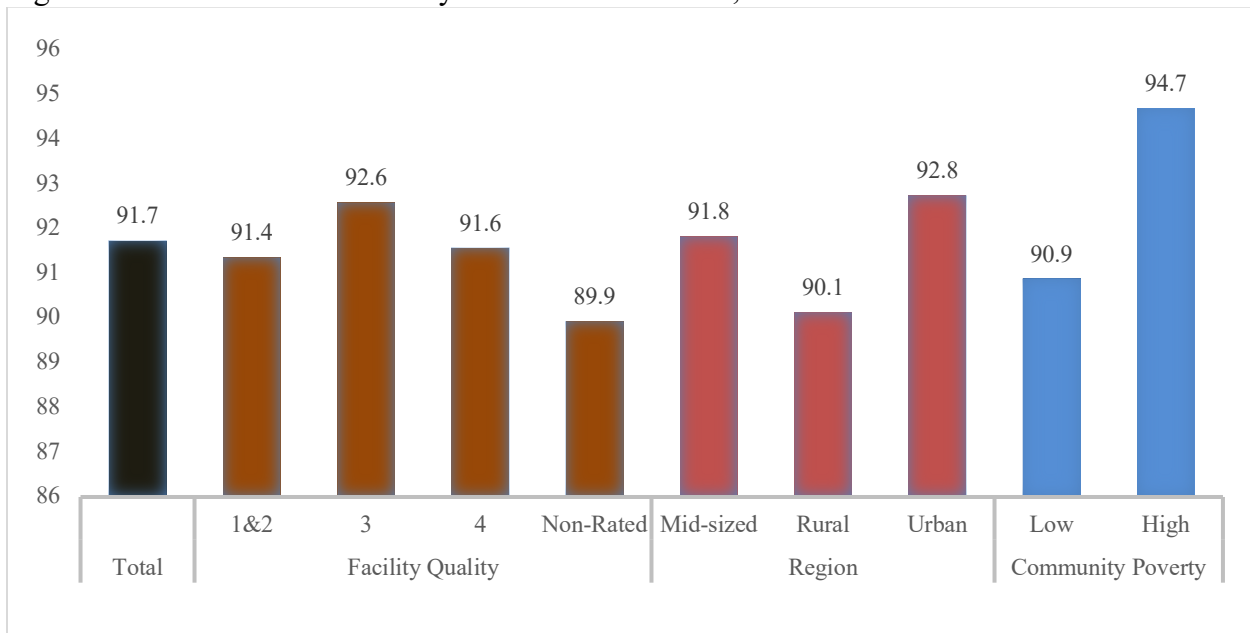
Figure 10. PPVT IV score means by center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard score between children in urban areas in contrast to mid-sized and rural areas.

Emerging language scores center characteristics reported in Figure 11. In this case, trends are reversed in terms of ratings, with centers rated 3 or 4 scoring slightly higher. This is also the case for urban centers. Children in centers in high-poverty areas scored significantly higher in language.

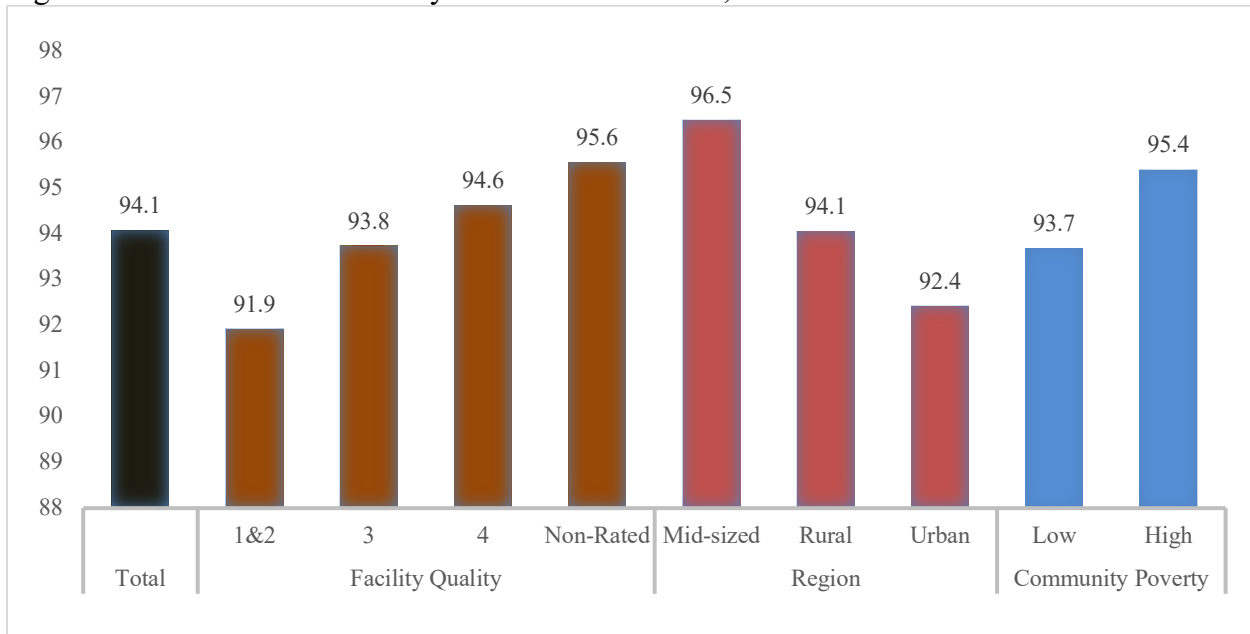
Figure 11. WJ-LW score means by center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard scores between children in low poverty in contrast to high-poverty communities.

Math scores by center characteristics saw higher math scores increasing by rating, as well as the highest being in non-rated centers. Like vocabulary, children in mid-sized regions scored higher than children in rural and urban areas. Children enrolled in programs in low-poverty areas also scored lower.

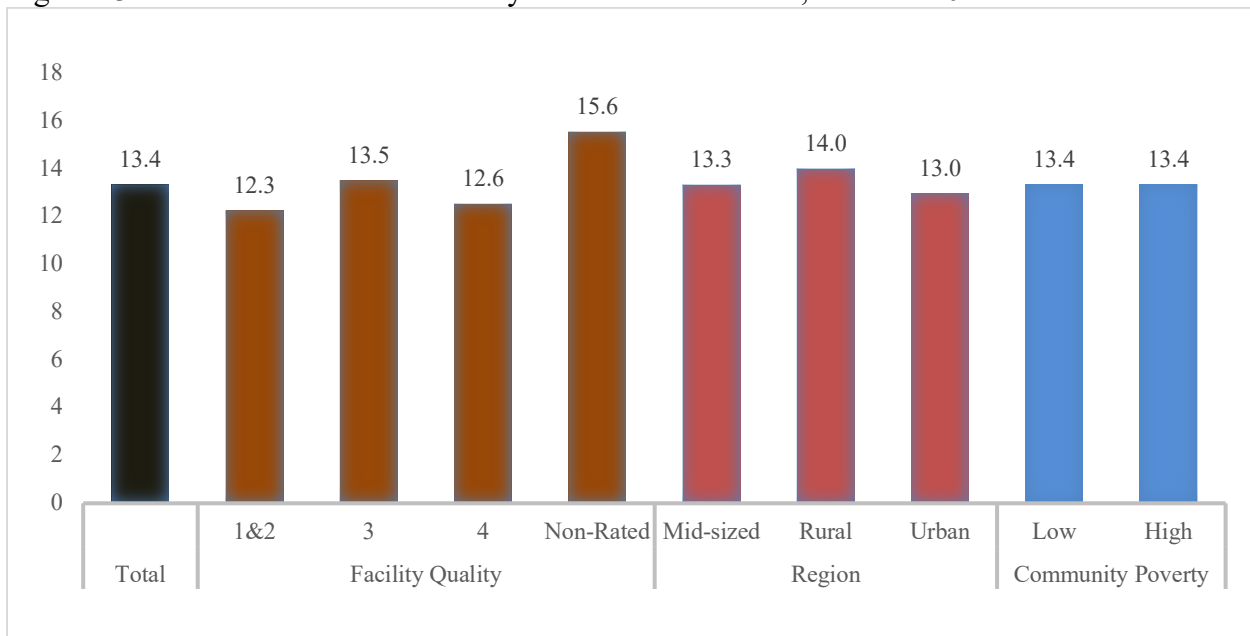
Figure 12. WJ-AP score means by center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for standard score between children in urban areas in contrast to mid-sized and rural areas.

Figures 13 and 14 show baseline scores in the DCCS and Peg Tapping (executive function) by child and program characteristics. In the sample, males scored lower in this measure. There were no differences by urbanicity and children in non-rated classrooms scored above the rest.

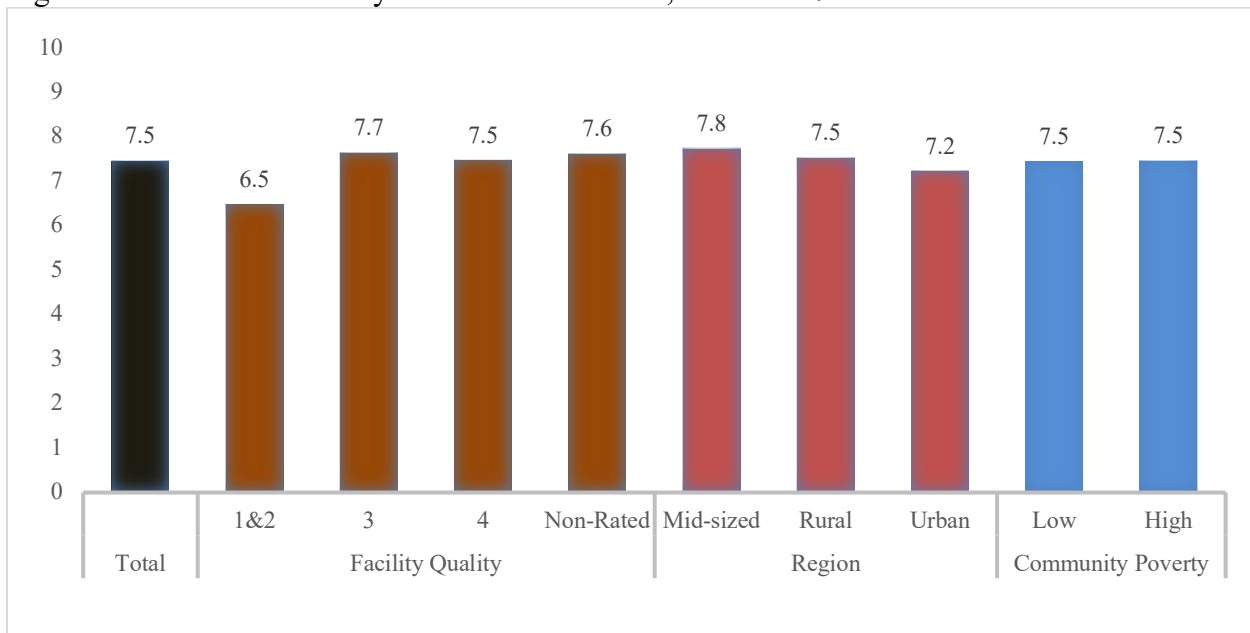
Figure 13. DCCS scaled score means by center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for scaled scores between children in non-rated programs in contrast to children in all other programs.

Similarly, Figure 14 reports average scores in the Peg-Tapping measure, which centers on retaining a rule and exercising inhibitory control. Children in low-rated centers scored lower. This was also the case for children in low-rated centers. Children in the sample scored higher than children in the SPP program in a 2018-2019 evaluation.¹³

Figure 14. PT score means by center characteristics, baseline 2021 scores

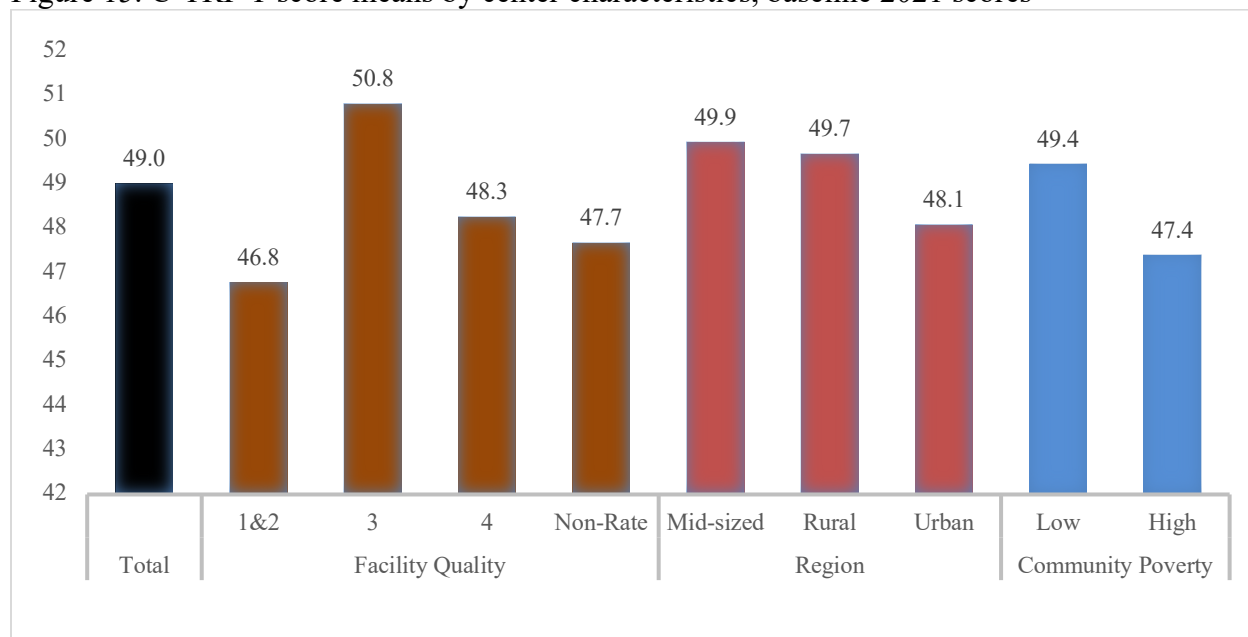


Note: No statistically significant difference was detected between presented groups.

¹³ Ibid, page 56.

In relation to children’s socio-emotional development, T scores reported reflect how a child’s score on each scale compares with the scores of the normative sample of peers. This is a teacher-reported measure of behavioral problems. The C-TRF is inversely coded, with higher scores indicating higher levels of problem behaviors (Figure 15). Overall, children in the sample scored a mean T score of 49.0, with a standard deviation of 10.9 and scores ranging between 32 and 84. As shown in Figure 14, children in programs rated 3 scored the highest, indicating higher rates of behavioral problems. Differences also emerge by urbanicity, and community poverty. This pattern remains the same for both internalizing and externalizing problems (Figures C.11 and C.12 in Appendix).

Figure 15. C-TRF T score means by center characteristics, baseline 2021 scores



Note: Group differences are statistically significant for T scores between for children in programs rated 1 and 2 in contrast to children in programs rated 3.

Discussion of Findings

This report summarizes findings for the 2021 school year for a landscape of ECE programs in Indiana. This first report focuses on information on program quality and program characteristics. Infant, toddler, and pre-K classrooms in a variety of program types in Indiana are averaging a range of quality as measured by the CLASS, with programs demonstrating low to high quality on varied domains based on the ages of children in the classroom.

In infant classrooms, programs are on average offering nurturing and safe environments for children, as the average score on the one domain on the Infant CLASS tool, Responsive Caregiving, was at 4.99 (just shy of 5, which indicates programs are of good quality). In looking more closely at the specific areas of where programs scored, we observe that while teachers are doing well in setting up a warm environment and building emotional connections with infants, they could use more support in strategies that enhance early language development.

In terms of toddler classrooms, the level of quality varies as a whole across programs as a function of domain, with programs in general displaying a high level of quality on the Emotional and Behavioral Support domain, which measures how well teachers form relationships with toddlers, respond to their needs, and guide behavior. However, those classrooms are only displaying moderate quality on the Engaged Support for Learning domain, which measures teacher capacity to facilitate instruction, scaffold, and model language. Supports for teachers in their facilitation of learning experiences for toddlers are needed based on these results.

Finally, pre-K classrooms are also displaying mixed quality in terms of the domains captured by the CLASS tool. Classrooms are, on average, demonstrating high quality in the domains for Emotional Support and Classroom Organization, showing teachers are adequately creating warm environments, facilitating relationships with children, and managing behavior effectively. The Instructional Support domain falls in the adequate/low range of quality across programs, demonstrating teachers need support in areas such as increasing conversations to encourage children's use of advanced language, using strategies to scaffold children's learning, and linking concepts across activities that allow children to apply what they are learning to their lived experiences.

There were a few notable differences that related to program region, auspice and PTQ rating. Notably, 3- and 4-rated programs scored higher on all domains of CLASS across ages, except for the Pre-K Classroom Organization domain, in which non-rated/0 programs scored the highest. Four-rated programs scored the highest on both domains in CLASS Toddler and on the Emotional Support domain in CLASS Pre-K. Three-rated programs scored the highest on the CLASS Infant, and on the Instructional Support domain of CLASS Pre-K. In an evaluation of the PTQ system in toddler and preschool classrooms conducted by Purdue University, a team of researchers documented similar results. Overall, CLASS Toddler and CLASS Pre-K scores were higher for 3- and 4-rated programs, and scores were lowest in the ESL domain on Toddler and the IS domain for pre-K. (Elicker, et. al., 2018) It thus seems that while there are meaningful differences in quality being captured by the PTQ rating system, programs across levels are struggling in providing high-level instructional experiences in the classroom.

Finally, we found evidence that programs were still grappling with the effects of the pandemic, particularly in terms of enrollment and staffing. The pandemic erased a decade of progress in enrollment in state-funded preschool programs, with enrollment declining by more than a quarter-million children in the 2020-21 school year; with preschool special education and Head Start reporting enrollment down one-third (Friedman-Krauss, et. al., 2021). Staffing was a challenge in centers and in other early learning centers. For example, 89% of child care centers in Virginia reported staffing was at least a little challenging in the winter of 2021-22, (Doromal, et. al., 2022) and 87% of centers in California reported making various staffing changes, including layoffs, furloughs, and reduction of hours. (Kim, et. al., 2022). The providers and directors in our sample reported similar challenges, with many sites reporting they were under-enrolled in the fall and winter of 2021 as a result of COVID or staffing challenges (or both). Providers will need continued support in the form of relief funds or other supports to continue to operate at levels previous to the pandemic.

Overall, the different sources of data reported seem to indicate that programs can benefit from support that intentionally connect to early language development and integrated content that supports early child development, as well as structures and supports that resolve differences in the adequacy of resources across programs. Further components of this research will look

assess the relationship between the structural and process aspects highlighted in this report, and children's development across various developmental domains.

Findings on baseline development of children provide an opportunity to describe the state of children in ECE programs in Indiana. Overall, we find infants and toddlers show lower developmental levels than expected levels in language and cognition. However, they are par with what we expect by maturation in socio-emotional development. In addition, we find evidence that this is also in literacy and math for children ages 3-5, but this is not the case in receptive vocabulary and executive functions. Looking at patterns across ratings, urbanicity and community poverty indicate higher average scores in higher rated centers and non-rated centers. This is not indicative of differences in their learning experiences, as this report does not discuss child progress over a period of time, but rather indicative of cumulative developmental opportunities.

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References

- Bandel, E., Aikens, N., Vogel, C. A., Boller, K., & Murphy, L. (2014). Observed quality and psychometric properties of the CLASS-T in the early head start family and child experiences survey. *Mathematica Policy Research*.
- Barnett, W. S., & Friedman-Krauss, A. H., (2016). *State(s) of Head Start*. New Brunswick, NJ: National Institute for Early Education Research.
- Bassok, D., Finch, J. E., Lee, R., Reardon, S. F., & Waldfogel, J. (2016). Socioeconomic gaps in early childhood experiences: 1998 to 2010. *Aera Open*, 2(3), 2332858416653924.
- Bichay-Awadalla, K. & Bulotsky-Shearer, R.J. (2022) Examining the Factor Structure of the Classroom Assessment Scoring System Toddler (CLASS-T) in Early Head Start and Subsidized Child Care Classrooms, *Early Education and Development*, 33:2, 309-325, DOI: 10.1080/10409289.2021.1887700
- Chaudry, A., Morrissey, T., Weiland, C., & Yoshikawa, H. (2021). *Cradle to kindergarten: A new plan to combat inequality*. Russell Sage Foundation.
- Decker-Woodrow, L., Hartman, N., Diaz, E., Adachi, E., Lamey, G. & Barfield, D. (2019). Pre-K 4 SA Evaluation Report. Year 6. San Antonio, TX: Westat.
- Doromal, J.B., Wiesner, K., & Bassok, D. (May 2022). Staffing Challenges at Virginia Child Care Centers: Differences by Centers' Participation Status. Retrieved from https://bit.ly/see_partnerships_staffing_va_CCSP
- Elicker, J., Lane, S., Gold, Z. S., Mishra, A., & Christ, S. (2018). Final report: Paths to QUALITY evaluation. Center for Families Publications. <https://docs.lib.purdue.edu/cffpub>
- Finders, J. K., Budrevich, A., Duncan, R. J., Purpura, D. J., Elicker, J., & Schmitt, S. A. (2021). Variability in Preschool CLASS Scores and Children's School Readiness. *AERA Open*, 7, 23328584211038938.
- Hamre, B. K., Karen, M., Paro, L., Pianta, R. C., & LoCasale-Crouch, J. (2014). *Classroom assessment scoring system (CLASS) manual, infant*. Paul H. Brookes Publishing.
- Head Start, ECLKC. (2020) A National Overview of Grantee CLASS® Scores in 2020. Washington, DC: Author. <https://eclkc.ohs.acf.hhs.gov/data-ongoing-monitoring/article/national-overview-grantee-class-scores-2020>
- La Paro, K. M., Hamre, B. K., & Pianta, R. C. (2012). *Classroom assessment scoring system (CLASS) manual, toddler*. Paul H. Brookes Publishing Company.
- LA Department of Education. (undated) Infant CLASS Lessons from the Pilot Year. LA: Author. https://louisianabelieves.com/docs/default-source/teacher-leader-summit/2019-teacher-leader-summit/e054---infant-class-slides.pdf?sfvrsn=1d0b9c1f_7
- Markowitz, A. J., Bassok, D., & Hamre, B. (2018). Leveraging developmental insights to improve early childhood education. *Child Development Perspectives*, 12(2), 87-92.

- NIEER (2014). The Evaluation of Quality of New Jersey's Preschool Classrooms 2014. Retrieved from <https://nieer.org/wp-content/uploads/2021/01/The-Evaluation-of-Quality-of-NJs-Preschool-Classrooms-2014.pdf>
- Nores, M., Barnett, W.S., Jung, K., Joseph, G. & Bachman, L. (2019). Year 4 report: Seattle Preschool Program evaluation. New Brunswick, NJ: National Institute for Early Education Research & Seattle, WA: Cultivate Learning, 66 pp. <http://nieer.org/research-report/seattle-pre-k-program-evaluation>
- Nores, M., Li, Z., & Acevedo, M. (2020). Evaluation of the Philadelphia PreK Program. Year 4 Report. New Brunswick, NJ: National Institute for Early Education Research.
- Nores, M., Valle, E., Contreras, C. & M. Allenger (2020). Evaluation of West Virginia Universal Pre-K. Classroom observation findings. New Brunswick, NJ: National Institute for Early Education Research.
- NYC Department of Education (2021) Early Childhood Program Assessments Classroom Assessment Scoring System (CLASS) and Early Childhood Environmental Rating Scale Revised (ECERS-R) Release. New York: Author.
- Phillips, D. A., Gormley, W. T., & Lowenstein, A. E. (2009). Inside the pre-kindergarten door: Classroom climate and instructional time allocation in Tulsa's pre-K programs. *Early Childhood Research Quarterly*, 24(3), 213-228.
- Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2012). *Classroom assessment scoring system (CLASS). Manual*. pre-K. Paul H. Brookes Publishing Company.
- Reardon, S. F., & Portilla, X. A. (2016). Recent trends in income, racial, and ethnic school readiness gaps at kindergarten entry. *Aera Open*, 2(3), 2332858416657343.
- Weiland, C., Ulvestad, K., Sachs, J., & Yoshikawa, H. (2013). Associations between classroom quality and children's vocabulary and executive function skills in an urban public prekindergarten program. *Early Childhood Research Quarterly*, 28(2), 199-209.
- Xue, Y., Baxter, C., Jones, C., Shah, H., Caronongan, P., Aikens, N., ... & Atkins-Burnett, S. (2021). Early Head Start Programs, Staff, and Infants/Toddlers and Families Served: Baby FACES 2018 Data Tables. OPRE Report 2021-92. Administration for Children & Families. <https://files.eric.ed.gov/fulltext/ED613544.pdf>
- Xue, Y., Del Grosso, P., & Carlson, B. A Snapshot of Quality in Child Care Centers That Partner with Early Head Start Programs: Insights from Baby FACES 2018 (No. 712ce2db10a64f818994c28bd7e0d5d2). Mathematica Policy Research. https://www.acf.hhs.gov/sites/default/files/documents/opre/ehs_ccp_quality_brief_june2022.pdf

Appendix A. Measures

Classroom Observation Measures

Classroom Assessment Scoring System (CLASS Infant; Hamre, et. al., 2014)

The Classroom Assessment Scoring System (CLASS) Infant is an observational tool used to measure the quality of interactions between teachers and children ages 0 through 18 months. Teachers are assessed on their interactions in one domain, Responsive Caregiving (RC), which consists of four dimensions: Relational Climate, Teacher Sensitivity, Facilitated Exploration, and Early Language Support. Observers complete five 15-minute cycles and code their observations for ten minutes each between cycles. Observers assign scores on a 7-point Likert-type scale. Scores of 1-2 indicate low quality, scores of 3-5 are in the moderate range, and scores of 6-7 indicate high quality.

Classroom Assessment Scoring System (CLASS Toddler; La Paro et al., 2012)

The Classroom Assessment Scoring System (CLASS) Toddler is an observational tool used to measure the quality of interactions between teachers and children ages 15 months through 36 months. CLASS Toddler is divided into two broad domains that cover eight dimensions. The Emotional and Behavioral Support (EBS) domain measures the social and emotional supports provided by teachers, and how teachers manage children's time, behavior, and attention in the classroom. The dimensions included are: Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Child Perspectives, and Behavior Guidance. The Engaged Support for Learning (ESL) domain measures how well teachers promote cognitive and language development. The dimensions covered include Facilitation of Learning and Development, Quality of Feedback, and Language Modeling.

Classroom Assessment Scoring System (CLASS Pre-K; Pianta, La Paro, & Hamre, 2008; Pianta & Hamre, 2009; Hamre, et. al., 2014)

The Classroom Assessment Scoring System (CLASS) is an observational system that assesses classroom practices by measuring the interactions between students and teachers. CLASS measures interactions along ten distinct dimensions, which are grouped into three overarching domains. The Emotional Support (ES) domain is measured by four dimensions: Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives. The Classroom Organization (CO) domain is measured by three dimensions: Productivity, Behavior Management, and Instructional Learning Formats. The Instructional Support (IS) domain is measured by three dimensions: Concept Development, Quality of Feedback, and Language Modeling. Observations consist of five 20-minute cycles, with ten-minute coding periods between each cycle. Scores (codes) are assigned during various classroom activities and then averaged across all cycles for overall scores in three domains. Each dimension is scored on a 7-point Likert-type scale, for which a score of 1 or 2 indicates low quality, and a score of 6 or 7 indicates high quality.

Table A.1. CLASS Infant Domains and Dimension Descriptions

Domain	Dimension	Description
Responsive Caregiving	Relational Climate	Assesses the emotional connection, respect, and enjoyment demonstrated between teachers and how infants respond to these connections.
	Teacher Sensitivity	Focuses on teachers' awareness of and responsiveness to children's cues, including verbal and nonverbal, and ability to provide comfort in a timely manner.
	Facilitated Exploration	Captures the degree to which the teachers' interactions with children during routine care and playtime support their development and engagement.
	Early Language Support	Measures the extent to which teachers facilitate and encourage children in language use, including language-stimulation and language-facilitation techniques.

Table A.2. CLASS Toddler Domains and Dimension Descriptions

Domain	Dimension	Description
Emotional and Behavioral Support	Positive Climate	Measures the warmth of relationships between teachers and children, and the ways teachers demonstrate respect for children.
	Negative Climate	Assesses the level of expressed negativity such as anger, hostility, or aggression exhibited by teachers and/or students in the classroom.
	Teacher Sensitivity	Captures teachers' awareness of and responsiveness to children, including their body language and behavior.
	Regard for Student Perspectives	Measures how well teachers emphasize children's motivations, points of view, and interests, and how much they maximize children's independence.
	Behavior Guidance	Captures how effectively teachers monitor, prevent, and redirect behavior.
Engaged Support for Learning	Facilitation of Learning and Development	Emphasizes how teachers facilitate instruction in a way that allows children to take an active role in their learning, and how well they connect children's lived experiences with classroom content.
	Quality of Feedback	Focuses on how well teachers extend students' learning through providing specific feedback or scaffolding and how well they encourage and affirm children.
	Language Modeling	Measures the extent to which teachers respond to and extend upon children's use of language.

Table A.3. CLASS Pre-K Domains and Dimension Descriptions

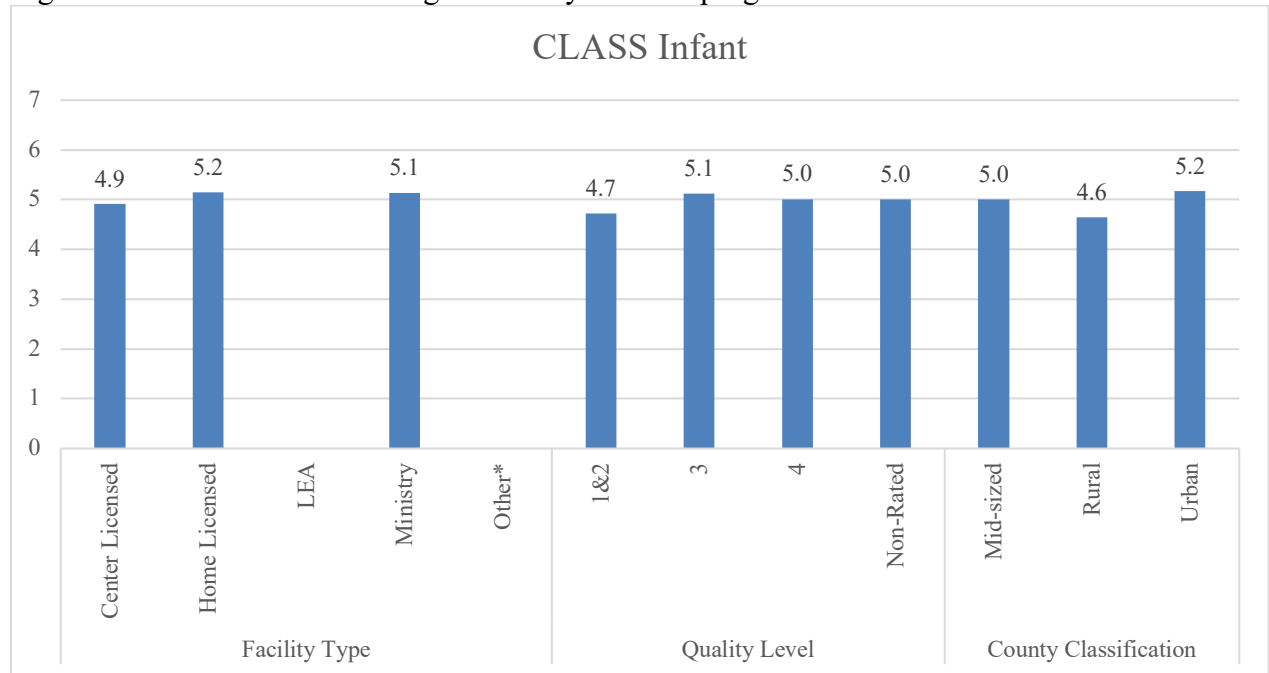
Domain	Dimension	Description
Emotional Support	Positive Climate	Reflects the emotional connection between teachers and children and among children, and the warmth, respect, and enjoyment communicated by verbal and nonverbal interactions.
	Negative Climate	Reflects the overall level of expressed negativity in the classroom. The frequency, quality, and intensity of teacher and peer negativity are key to this dimension.
	Teacher Sensitivity	Encompasses the teacher's awareness of and responsiveness to students' academic and emotional needs.
	Regard for Student Perspectives	Captures the degree to which the classroom activities and teacher's interactions with students place an emphasis on students' interests, motivations, and points of view and encourage student responsibility and autonomy.

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Classroom Organization	Behavior Management	Encompasses the teacher's ability to provide clear behavior expectations and use effective methods to prevent and redirect misbehavior.
	Productivity	Considers how well the teacher manages instructional time and routines and provides activities for students so that they have the opportunity to be involved in learning activities.
	Instructional Learning Formats	Focuses on the ways in which teachers maximize students' interest, engagement, and abilities to learn from lessons and activities.
Instructional Support	Concept Development	Measures the teacher's use of instructional discussions and activities to promote students' higher-order thinking skills and cognition and the teacher's focus on understanding rather than on rote instruction.
	Quality of Feedback	Assesses the degree to which the teacher provides feedback that expands learning and understanding and encourages continued participation.
	Language Modeling	Captures the effectiveness and amount of teacher's use of language-stimulation and language-facilitation techniques.

Appendix B. Findings on Classroom Observations

Figure B.1. CLASS infant average scores by selected program characteristics



Note: The range of classrooms for each subgroup reported in the table above was from 4 to 92, except for the category of “Other” under facility type for infants for which only one classroom (an infant/toddler program located in and run by a school district) was captured and therefore not reported.

Figure B.1. CLASS toddler average scores by selected program characteristics

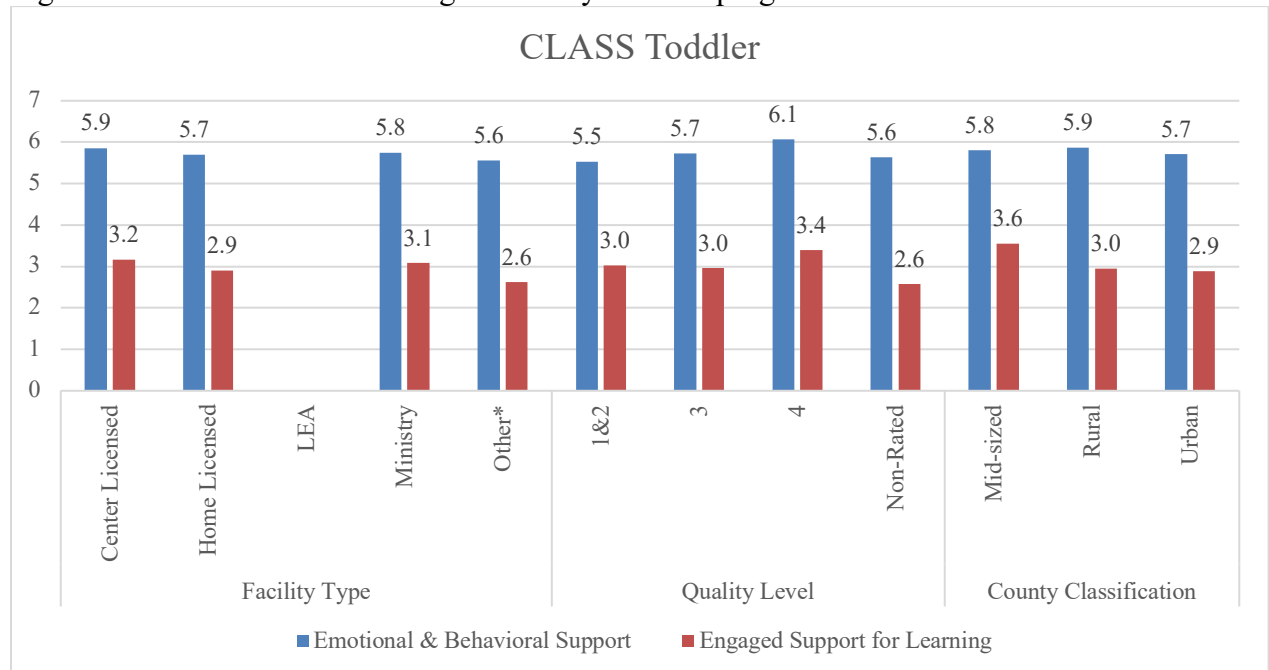


Figure B.1. CLASS Pre-K average scores by selected program characteristics

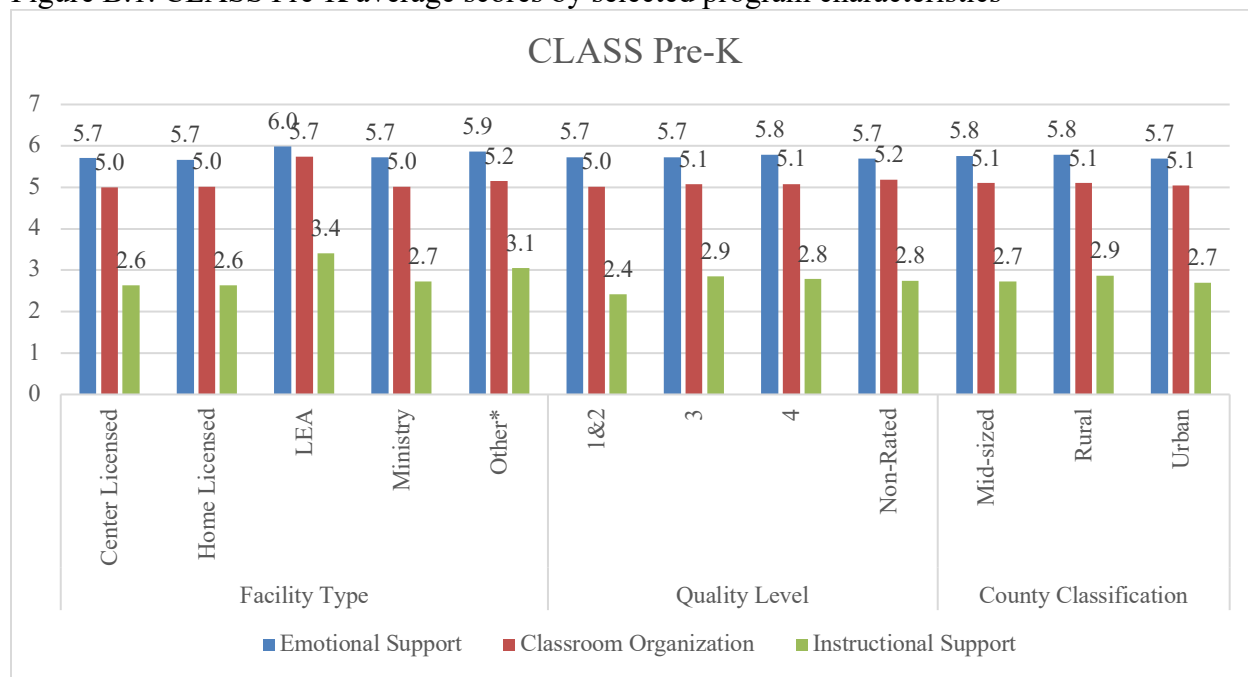


Table B.1. Percentage of classrooms with various environmental indicators

Furniture	Infants/Toddlers	Pre-K
Cubbies p/child	84%	82%
Carpet/crawling area	95%	80%
Tables	25%	96%
Shelving units with materials	77%	83%
Chairs (age-appropriate)	88%	95%
Art shelving area	36%	74%
House shelving area	52%	68%
Manipulatives shelving area	80%	90%
Beanbags/soft furniture (age-appropriate)	49%	14%
Bookrack	71%	71%
Book shelving unit	50%	59%
Computer station*	n/a	10%
Chairs for computer stations*	n/a	8%
Music area shelving	39%	44%
Easel	35%	58%
Sand/water table	49%	57%
Workbench (age-appropriate)	13%	16%
Hanging clothes unit	21%	41%
Play table and chair	45%	71%
Child-sized sink	79%	82%
Child-sized stove	80%	85%
Child-sized refrigerator	69%	71%
Child-sized drawers	32%	37%
Child-sized rocking chair	13%	14%

*Preschool classrooms only. n=87 and 127, respectively.

Table B.2. Program characteristics for sample by program type

Program Characteristics	Center -Licensed	F L C E C A s	Ministry	Other*	Total/ Mean
PTQ Rating					
Unrated and 0	5	5 0	12	10	32
1 and 2	18	3 0 1	13	1	63
3	23	2 1 0 4	25	0	82
4	20	1 4 9	10	0	53
Subtotal	66	7 1 5 8	60	11	230
Number of teachers	10	2 3	7	5	5
Number of assistant teachers	7	1 4	5	5	4
Average enrollment	71	1 6 3 5	53	72	47
Average student-teacher ratio					
Preschool	6.4	4 5 . . 6 4	6.7	6.4	5.9
Infant	2.9	3 N . / 2 A	2.9	4.5	4.4
Toddler	3.9	4 N . / 1 A	4	3.6	3.4
% Asian	2.8	0 3 . . 2 7	0.9	0.4	1.6
% Black, African American	13.5	2 6 0 . . 4 2	18.1	3.0	15.7
% Hispanic/Latino	6.1	2 5 . . 1 2	4.8	12.5	4.9
% White	65.2	6 7 3 1 . . 3 3	73.4	83.1	68.1
% Multi-Racial	6.4	5 1 . 0 8 . 3	5.5	1.7	6.2

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% ELL enrollment	27.3	48 7. .4 3	24.5	31.1	31.9
% Special education needs	7.8	32 .3 7. 7	2.8	9.3	6.5
Typical # children/classroom (0-2)	9.2	5N / 7A	8.5	6.2	7.0
Typical # of children/classroom (3-5)	20.9	61 .7 9. 8	16.7	16.7	14.6
Typical tuition (<12 months), weekly	239.1	1N 6/ 5A .0	150.5	118.3	170.9
Typical tuition (1-3), weekly	209.5	1N 5/ 4A .2	171.4	105.8	167.7
Typical tuition (3-5), weekly	196.2	18 42 3. .0 9	163.8	98.7	158.3
Eligibility criteria, %					
Income	31.8	53 .3 3. 3	5.0	9.1	15.2
Residency	12.1	13 .8 3. 9	0.0	27.3	8.2
Risk factor	7.6	03 .8 0. 9	1.7	18.2	6.5
Tuition charge (1-Yes), %	70.3	48 53 .3 33	90.0	100.0	69.7
Sliding fees, %	20.0	75 .9 9	16.9	0.0	13.2

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Curricula, %						
High/Scope	12.1	1 3	1 6	5.0	18.2	11.3
		. 3	. 7			
Creative Curriculum	53.0	1 7	2 7	31.7	18.2	32.2
		. 3	. 8			
Frog Street	6.1	1 3	5 6	3.3	0.0	3.5
		. 3	. 6			
School-Created	12.1	2 0	2 2	20.0	45.5	19.1
		. 0	. 2			
No Formal Curriculum	10.6	2 5	5 .6	6.7	9.1	13.9
		. 3	. 6			
Other	36.4	4 9	6 1	65.0	72.7	51.7
		. 3	. 1			

Note: The total valid n for each variable on the left ranged from 116 to 228.

Table B.3. Director characteristics for sample by program type

Director Characteristics	Center-Licensed	FCCs	LEA	Ministry	Other	Total
Female, %	98.1	94.4	98.3	100.0	87.5	98.1
Race/ethnicity, %						
Asian	1.9	0.0	0.0	0.0	0.0	0.5
Black/African American	11.5	18.9	0.0	12.1	0.0	12.9
Hispanic/Latino	1.9	1.4	0.0	0.0	0.0	1.0
White	82.7	77.0	94.4	82.8	100.0	82.4
Multi-racial	1.9	0.0	5.6	1.7	0.0	1.4
Other	0.0	2.7	0.0	3.4	0.0	1.9
Years in current role	6.0	14.9	5.7	8.5	4.6	9.6
Education (BA+), %	74.6	23.6	77.8	63.8	75.0	54.9
Credentials						
Infant and Toddler	7.6	9.3	5.6	8.3	0.0	7.8
Child Development Associate	15.2	58.1	5.6	35.0	0.0	33.0
P-3 Certificate	7.6	0.0	16.7	1.7	9.1	4.3
Other	22.7	17.3	44.4	28.3	27.3	24.2

Table B.4. Program characteristics for sample by program quality

Program Characteristics	Unrated and 0	1 and 2	3	4	Total/ Mean
Number of teachers	6	4	6	7	5
Number of assistant teachers	5	3	4	5	4
Average enrollment	58	31	48	56	47
Average student-teacher ratio					
Preschool	6.7	4.7	6.4	6.0	6.0
Infant	3.1	2.6	3.2	3.2	3.0
Toddler	4.3	3.9	4.3	3.6	4.0
% Asian	0.9	0.3	0.6	4.6	1.6
% Black, African American	18.5	23.0	10.8	13.7	15.7
% Hispanic/Latino	6.4	3.6	3.0	8.2	4.9
% White	78.3	58.6	73.5	63.3	68.1
% Multi-Racial	4.8	5.9	6.7	6.3	6.2
% ELL enrollment	23.2	47.3	24.8	29.3	31.9
% Special education needs	5.8	3.6	9.5	5.5	6.5
Typical # children/classroom (0-2)	8.0	7.7	6.6	6.1	7.0
Typical # of children/classroom (3-5)	16.3	12.3	15.6	15.0	14.6
Typical tuition (<12 months), weekly	165.8	166.6	153.6	215.0	170.9
Typical tuition (1-3), weekly	153.9	182.0	151.3	193.1	167.7
Typical tuition (3-5), weekly	136.3	149.0	158.8	177.6	158.3
Eligibility criteria, %					
Income	6.3	12.7	17.1	20.8	15.2
Residency	15.6	4.8	6.1	11.3	8.3
Risk factor	6.3	1.	6.1	13.2	6.5
Tuition charge (1-Yes), %	81.3	51.6	79.3	69.2	69.7
Sliding fees, %	9.7	16.1	8.8	18.5	13.2
Curricula, %					
High/Scope	6.3	14.3	11.0	11.3	11.3
Creative Curriculum	9.4	23.8	40.2	43.4	32.2
Frog Street	3.1	1.6	4.9	3.8	3.5
School-Created	25.0	20.6	22.0	9.4	19.1
No Formal Curriculum	25.0	25.4	4.9	7.5	13.9
Other	59.4	34.9	59.8	54.7	51.7

Note: The total valid n for each variable on the left ranged from 116 to 228.

Table B.5. Director characteristics for sample by program quality

Director Characteristics	Unrated and 0	1 and 2	3	4	Total/ Mean
Female, %	92.9	98.3	98.6	100.0	98.1
Race/ethnicity, %					
Asian	3.6	0.0	0.0	0.0	0.5
Black/African American	14.3	24.1	8.3	5.8	12.9
Hispanic/Latino	0.0	0.0	1.4	1.9	1.0
White	82.1	72.4	86.1	88.5	82.4
Multi-racial	0.0	0.0	2.8	1.9	1.4
Other	0.0	3.4	1.4	1.9	1.9
Years in current role	8.1	9.8	8.3	12.1	9.6
Education (BA+), %	57.2	32.7	61.5	68.6	54.6
Credentials					
Infant and Toddler	9.4	7.9	7.3	7.5	7.8
Child Development Associate	21.9	46.0	31.7	26.4	33.0
P-3 Certificate	0.0	4.8	0.0	13.2	4.3
Other	25.0	17.5	23.2	34.0	24.3

Note: The total valid n for each variable on the left ranged from 211 to 228.

Table B.6. Program characteristics for sample by program location

Program Characteristics	Mid-Sized	Rural	Urban	Total/Mean
Number of teachers	6	5	6	5
Number of assistant teachers	4	4	4	4
Average enrollment	52	44	46	47
Average student-teacher ratio				
Preschool	7.3	5.6	5.7	6.0
Infant	3.6	2.7	2.9	3.0
Toddler	4.3	3.6	4.1	4.0
Composition				
% Asian	1.2	0.1	2.9	1.6
% Black, African American	10.6	1.9	26.9	15.7
% Hispanic/Latino	5.1	2.9	6.5	4.9
% White	77.5	83.0	51.1	68.1
% Multi-Racial	6.8	5.0	6.8	6.2
% ELL enrollment	0.4	0.2	0.4	0.3
% Special Education needs	3.8	8.0	6.7	6.5
Typical # children/classroom (0-2)	7.0	7.0	7.0	7.0
Typical # of children/classroom (3-5)	16.8	16.2	12.7	14.6
Typical tuition (<12 months), weekly	163.6	115.9	206.9	170.9
Typical tuition (1-3), weekly	165.1	111.3	202.5	167.7
Typical tuition (3-5), weekly	159.2	117.0	184.1	158.3
Eligibility criteria, %				
Income	5.9	19.5	16.7	15.2
Residency	5.9	9.1	8.8	8.3
Risk factor	20	6.5	8.8	6.5
Tuition charge (1-Yes), %	71.2	62.3	74.7	69.7
Sliding fees, %	11.8	11.7	15.2	13.2
Curricula, %				
High/Scope	11.8	10.4	11.8	11.3
Creative Curriculum	31.4	28.6	35.3	32.2
Frog Street	3.9	6.5	1.0	3.5
School-Created	25.5	16.9	17.6	19.1
No Formal Curriculum	15.7	15.6	11.8	13.9
Other	45.1	62.3	47.1	51.7

Table B.7. Director characteristics for sample by program quality

Director Characteristics	Mid-Sized	Rural	Urban	Total/Mean
Female, %	97.8	100.0	96.9	98.1
Race/ethnicity, %				
Asian	0.0	0.0	1.0	0.5
Black/African American	6.7	0.0	24.5	12.9
Hispanic/Latino	0.0	0.0	2.0	1.0
White	93.3	98.5	66.3	82.4
Multi-racial	0.0	1.5	2.0	1.4
Other	0.0	0.0	4.1	1.9
Years in current role	10.9	9.9	8.7	9.6
Education (BA+), %	55.5	55.4	54.1	54.9
Credentials				
Infant and Toddler	7.8	6.5	8.8	7.8
Child Development Associate	35.3	32.5	32.4	33.0
P-3 Certificate	2.0	2.6	6.9	4.3
Other	21.6	19.5	29.4	24.3

Note: The total valid n for each variable on the left ranged from 211 to 228.

Appendix C. Findings on Baseline Child Assessments

Table C.1. Bayley cognitive standardize score by child & center characteristics, baseline 2021 scores

		COG Raw Score			COG Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		208	8.78	3.37	208	93.89	16.84
Gender	Female	96	9.19	3.01	96	95.94	15.03
	Male	112	8.43	3.63	112	92.14	18.13
Age	1	39	7.87	4.11	39	89.36	20.53
	2	82	8.84	3.14	82	94.21	15.72
	3 and 4	87	9.13	3.17	87	95.63	15.84
Facility Quality	1 and 2	51	8.43	3.23	51	92.16	16.13
	3	59	7.78	3.51	59	88.9	17.54
	4	68	9.09	3.48	68	95.44	17.4
Region	Non-Rate	30	10.63	2.09	30	103.17	10.46
	Mid-Sized	52	9.40	3.64	52	97.02	18.18
	Rural	69	7.87	3.12	69	89.35	15.58
Community Poverty	Urban	87	9.13	3.28	87	95.63	16.4
	Low	158	8.68	3.34	158	93.42	16.71
	High	50	9.08	3.46	50	95.4	17.32

Note: Group differences are statistically significant for raw and standard scores between children in non-rated programs in contrast to all other programs; for raw and standard scores between children in a rural area in contrast to children in mid-sized and urban areas.

Table C.2. Bayley language standardize score by child and center characteristics, baseline 2021 scores

		LANG Raw Score			LANG Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		206	16.29	6.57	206	89.60	18.29
Gender	Female	95	16.64	6.55	95	90.62	18.29
	Male	111	15.98	6.60	111	88.77	18.33
Age	1	39	16.79	5.23	39	91.13	14.38
	2	81	15.30	6.05	81	86.96	16.93
	3 and 4	86	16.99	7.47	86	91.45	20.81
Facility Quality	1 and 2	50	15.24	6.63	50	86.76	18.56
	3	59	14.93	6.50	59	85.95	18.13
	4	67	16.96	6.35	67	91.30	17.74
	Non-Rate	30	19.20	6.24	30	97.90	17.03
Region	Mid-Sized	51	17.49	6.65	51	92.94	18.01
	Rural	69	15.72	6.16	69	88.23	17.03
	Urban	86	16.02	6.82	86	88.78	19.36
Community Poverty	Low	156	16.26	6.66	156	89.60	18.49
	High	50	16.36	6.33	50	89.80	17.84

Note: Group differences are statistically significant for raw and standard scores between children in non-rated and programs rated 1, 2, and 3.

Table C.3. Bayley social-emotional standardize score by child and center characteristics, baseline 2021 scores

		SOEM Raw Score			SOEM Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		172	20.08	6.04	172	100.06	172.00
Gender	Female	98	8.85	4.48	98	94.23	22.38
	Male	99	9.15	4.16	99	95.76	20.80
Age	1	37	10.92	4.82	37	104.59	24.08
	2	73	8.29	4.13	73	91.44	20.66
	3 and 4	72	9.19	4.00	72	95.97	19.99
Facility Quality	1 and 2	48	10.02	4.94	48	100.10	24.68
	3	61	8.15	4.28	61	90.74	21.41
	4	58	9.78	3.70	58	98.88	18.50
Region	Non-Rate	30	7.60	3.86	30	88.00	19.28
	Mid-Sized	49	9.53	4.13	49	97.65	20.64
	Rural	71	9.79	4.69	71	98.94	23.47
Community Poverty	Urban	77	7.94	3.87	77	89.68	19.35
	Low	158	9.07	4.49	158	95.35	22.44
	High	39	8.72	3.55	39	93.59	17.73

Note: Group differences are statistically significant for raw and standard scores between children at age one in contrast to children at age two and three and four; for raw and standard scores between children in non-rated programs in contrast to children in programs rated 1, 2, and 4; for raw and standard scores between children in urban area in contrast to children in mid-sized and rural areas.

Table C.4. Bayley socialization standardize score by child and center characteristics, baseline 2021 scores

		SOC Raw Score			SOC Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		197	9.00	4.31	197	95.00	21.56
Gender	Female	87	20.40	6.43	87	100.91	17.86
	Male	85	19.75	5.63	85	99.19	14.96
Age	1	34	20.74	5.57	34	102.12	14.74
	2	62	19.69	5.74	62	98.85	15.41
	3 and 4	65	19.69	6.05	65	98.85	16.45
Facility Quality	1 and 2	47	21.21	7.25	47	103.36	20.29
	3	47	19.45	6.40	47	98.23	17.06
	4	55	19.93	5.26	55	99.65	14.05
	Non-Rate	23	19.43	3.95	23	98.00	10.83
Region	Mid-Sized	40	20.85	4.47	40	101.88	12.34
	Rural	67	19.73	5.62	67	99.28	14.95
	Urban	65	19.97	7.22	65	99.74	19.95
Community Poverty	Low	139	19.90	5.78	139	99.47	15.60
	High	33	20.85	7.05	33	102.52	19.77

Note: No statistically significant group differences were detected.

Table C.5. PPVT IV score means by child and center characteristics, baseline 2021 scores

		PPVT Raw Score			PPVT Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		484	76.42	22.56	752	101.24	16.48
Gender	Female	255	76.75	21.21	389	102.3	15.52
	Male	229	76.04	24.02	363	100.11	17.40
Age	Missing	5	78.80	31.71	77	95.97	14.09
	4 and younger	152	64.10	18.86	221	103.77	15.56
	5	265	81.58	21.81	369	102.1	17.19
	6 and older	62	84.32	21.62	85	95.72	15.61
Facility Quality	1 and 2	79	71.18	21.00	87	100.77	16.45
	3	215	77.37	22.43	333	101.06	16.84
	4	119	76.61	24.61	211	100.77	16.46
Region	Non-Rated	71	79.03	20.54	121	102.89	15.60
	Mid-Sized	125	81.09	22.33	219	103.49	15.62
	Rural	138	79.13	19.84	215	101.59	16.01
Community Poverty	Urban	221	72.08	23.57	318	99.46	17.20
	Low	366	77.83	22.80	579	101.57	16.89
	High	114	71.68	21.11	169	99.96	14.90

Note: Group differences are statistically significant for raw scores between age group four or younger versus age five and six; standard scores between children in age group four or younger versus children missing age information and children at age six; for raw and standard score between children in urban areas in contrast to mid-sized and rural areas; for raw scores between low poverty in contrast to high-poverty communities.

Table C.6. WJ IV-LW score means by child and center characteristics, baseline 2021 scores

		LW Raw Score			LW Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		756	6.29	4.62	750	91.73	13.71
Gender	Female	390	6.42	4.81	387	92.32	13.77
	Male	366	6.15	4.42	363	91.11	13.63
Age	Missing	81	5.99	4.85	76	88.43	14.90
	4 and younger	221	4.79	4.33	221	98.06	12.65
	5	369	6.95	4.66	368	90.80	12.77
	6 and older	85	7.61	3.97	85	82.25	11.64
Facility Quality	1 and 2	87	5.82	3.68	87	91.36	13.23
	3	336	6.55	5.03	332	92.59	13.88
	4	213	6.16	4.69	211	91.57	13.75
	Non-Rate	120	6.13	3.86	120	89.93	13.46
Region	Mid-Sized	220	6.36	4.61	218	91.83	12.89
	Rural	217	6.07	3.97	215	90.13	13.77
	Urban	319	6.39	5.04	317	92.75	14.15
Community Poverty	Low	582	6.06	4.41	577	90.88	13.64
	High	170	7.08	5.25	169	94.70	13.72

Note: Group differences are statistically significant for raw scores between age group four or younger versus all other age groups; standardized scores between children in age group four or younger versus all other age groups; for raw and standard scores between low poverty in contrast to high-poverty communities.

Table C.7. WJ IV-AP score means by child and center characteristics, baseline 2021 scores

		AP Raw Score			AP Standard Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		755	9.55	4.09	744	94.08	14.95
Gender	Female	390	9.75	4.04	387	94.86	14.94
	Male	365	9.35	4.14	357	93.24	14.95
Age	Missing	80	9.40	3.68	75	91.35	14.71
	4 and younger	221	7.30	3.61	221	96.67	15.51
	5	369	10.55	3.96	364	94.65	14.30
Facility Quality	6 and older	85	11.22	3.77	84	87.25	14.25
	1 and 2	87	8.53	3.51	84	91.92	12.40
	3	336	9.50	4.32	332	93.75	15.75
Region	4	213	9.68	3.80	210	94.63	15.07
	Non-Rate	119	10.23	4.19	118	95.57	14.05
	Mid-Sized	220	10.20	3.96	217	96.5	14.11
Community Poverty	Rural	216	9.82	4.27	213	94.07	14.31
	Urban	319	8.93	3.98	314	92.42	15.75
Community Poverty	Low	581	9.53	4.19	573	93.69	15.22
	High	170	9.61	3.77	167	95.41	14.14

Note: Group differences are statistically significant for raw scores between age group four or younger versus all other age groups; for standard scores between children in age group four or younger versus children missing age information and children in age six group; for raw scores between children in programs rated 1 and 2 in contrast to all other programs; for raw and standard score between children in urban areas in contrast to mid-sized and rural areas.

Table C.8. DCCS score means by child and center characteristics, baseline 2021 scores

		DCCS Raw Score			DCCS Scaled Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		476	13.37	6.11	744	1.65	0.78
Gender	Female	250	13.95	5.88	384	1.73	0.89
	Male	226	12.73	6.3	360	1.56	0.63
Age	Missing	5	15.60	4.39	81	1.88	1.57
	4 and younger	152	11.26	5.97	219	1.42	0.61
	5	262	14.13	5.98	364	1.70	0.60
	6 and older	57	15.30	5.76	80	1.79	0.54
Facility Quality	1 and 2	79	12.27	6.2	87	1.55	0.61
	3	211	13.53	6.12	331	1.60	0.63
	4	118	12.56	6.03	209	1.64	0.55
Region	Non-Rate	68	15.57	5.57	117	1.85	1.38
	Mid-Sized	122	13.34	6.08	215	1.70	1.08
	Rural	134	14.02	5.79	212	1.68	0.60
Community Poverty	Urban	220	12.99	6.3	317	1.59	0.63
	Low	358	13.38	5.95	570	1.64	0.82
	High	114	13.37	6.59	170	1.68	0.64

Note: Group differences are statistically significant for raw and scaled scores between boys and girls; for raw score between age four group versus age five and six groups; for scaled score between age four and all other age groups; for raw and scaled score between children in non-rated programs in contrast to children in all other programs.

Table C.9. PT score means by child & center characteristics, baseline 2021 scores

		PT Score		
		Valid N	Mean	St.Dev.
Total		753	7.47	6.32
Gender	Female	389	7.85	6.34
	Male	364	7.07	6.28
Age	Missing	81	6.43	6.65
	4 and younger	220	4.65	5.65
	5	367	8.87	6.11
	6 and older	85	9.75	5.81
Facility Quality	1 and 2	87	6.49	6.08
	3	333	7.66	6.23
	4	213	7.49	6.33
Region	Non-Rate	120	7.63	6.73
	Mid-Sized	219	7.75	6.34
	Rural	216	7.54	6.32
Community Poverty	Urban	318	7.24	6.32
	Low	580	7.46	6.31
	High	169	7.47	6.38

Note: Group differences are statistically significant for raw scores between for children in age four or younger group versus all other age groups.

Table C.10. C-TRF Total Problems score by child and center characteristics, baseline 2021 scores

		C-TRF TP Raw Score			C-TRF TP T Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		411	18.52	20.76	411	49.01	10.95
Gender	Missing	3	14.00	11.53	3	48.67	8.08
	Female	218	16.28	17.37	218	48.04	10.45
	Male	190	21.15	23.96	190	50.13	11.47
Age	Missing	11	12.91	11.29	11	46.18	10.28
	4 and younger	138	18.43	18.90	138	49.41	10.35
	5	224	18.54	20.68	224	49.06	10.84
Facility Quality	6 and older	38	20.29	28.78	38	48.08	13.80
	1 and 2	72	15.21	20.26	72	46.78	11.24
	3	177	21.49	22.27	177	50.80	10.87
Region	4	105	16.73	18.82	105	48.26	10.45
	Non-Rate	57	16.77	19.14	57	47.67	11.11
	Mid-Sized	102	20.63	24.54	102	49.94	11.49
Community Poverty	Rural	120	18.58	17.17	120	49.67	10.08
	Urban	189	17.34	20.63	189	48.08	11.16
	Low	317	19.23	21.22	317	49.44	10.96
	High	87	16.22	19.58	87	47.39	11.10

Note: Group differences are statistically significant for T scores between for children in programs rated 1 and 2 in contrast to children in programs rated 3.

Table C.11. C-TRF Internalizing Problems by child and center characteristics, baseline 2021 scores

		C-TRF IP Raw Score			C-TRF IP T Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		411	4.96	6.46	411	47.15	10.3
Gender	Missing	3	2.00	1.00	3	44.00	3.00
	Female	218	4.47	5.23	218	46.56	9.51
	Male	190	5.58	7.64	190	47.88	11.18
Age	Missing	11	2.18	2.09	11	42.91	6.63
	4 and younger	138	4.57	6.06	138	46.91	9.69
	5	224	5.17	6.39	224	47.52	10.31
Facility Quality	6 and older	38	5.95	8.64	38	47.08	12.99
	1 and 2	72	4.24	6.34	72	45.64	10.28
	3	177	5.76	7.41	177	48.62	10.72
Region	4	105	4.50	5.38	105	46.44	9.64
	Non-Rate	57	4.26	4.94	57	45.82	9.82
	Mid-Sized	102	6.34	8.98	102	48.79	12.25
Community Poverty	Rural	120	4.87	5.14	120	47.38	9.37
	Urban	189	4.28	5.42	189	46.12	9.62
	Low	317	5.16	6.90	317	47.41	10.57
	High	87	4.26	4.74	87	46.10	9.54

Note: Group differences are statistically significant for raw scores between children in mid-sized and urban areas.

Table C.12. C-TRF Externalizing Problems by child and center characteristics, baseline 2021 scores

		C-TRF EP Raw Score			C-TRF EP T Score		
		Valid N	Mean	St.Dev.	Valid N	Mean	St.Dev.
Total		411	8.91	10.98	411	50.79	10.31
Gender	Missing	3	9.33	9.02	3	51.67	12.10
	Female	218	7.55	9.31	218	49.59	9.56
	Male	190	10.46	12.51	190	52.15	10.97
Age	Missing	11	8.27	7.81	11	50.36	10.24
	4 and younger	138	9.31	10.53	138	51.48	9.73
	5	224	8.67	10.91	224	50.66	10.30
Facility Quality	6 and older	38	9.00	13.81	38	49.13	12.42
	1 and 2	72	7.22	10.31	72	49.14	10.04
	3	177	10.42	11.59	177	52.44	10.29
Region	4	105	8.11	10.17	105	50.23	10.01
	Non-Rate	57	7.77	10.95	57	48.77	10.69
	Mid-Sized	102	9.47	11.65	102	51.31	10.51
Community Poverty	Rural	120	8.71	9.66	120	51.14	9.36
	Urban	189	8.72	11.43	189	50.28	10.79
	Low	317	9.18	10.83	317	51.13	10.08
	High	87	8.08	11.74	87	49.77	11.08

Note: Group differences are statistically significant for raw scores between boys and girls; for T scores between children in programs rated 3 in contrast to children in programs rated 2 and non-rated programs.

Appendix D. Draft Memo February 2022

State Leaders Reflect on the Impact of COVID-19 on ECE in Indiana and Share Their Recommendations

Lori Connors-Tadros, Erin Harmeyer, Milagros Nores, Carol Contreras, NIEER

DRAFT- February 10, 2022

NIEER staff interviewed selected state early childhood leaders to understand the current context for supporting quality in early care and education programs in Indiana. From January 24, 2022 through February 10, 2022, we interviewed the following:

1. Nicole Norvell, Director, Office of Early Childhood and Out of School Learning, Family and Social Services Administration (FSSA)
2. Sarah Parks-Reese, Early Learning Specialist, Indiana Department of Education (DOE)
3. Louise Stoney, Opportunities Exchange, Consultant
4. Amanda Lopez, President, Transform Consulting Group
5. Diana Wallace, Executive Director, Indiana Association for the Education of Young Children (INAEYC)
6. Mike Bachman, Technical Assistance Director, IN SPARK and Charlie Geier, VP, Shine Advance
7. Tonia Carriger, Indiana Head Start Collaboration Director
8. Aleisha Sheridan, Chief Executive Officer, Building Blocks

The following are preliminary themes and considerations based on the interviews conducted.

All Early Care and Education Programs are Experiencing Extreme Stress. Nicole reported that child care programs and providers were suffering but weathering the impact of COVID through December 2021. The major surge of the Omicron variant in January has resulted in providers being “beyond exhausted” and “angry/frustrated.” Some are admittedly not complying with safety regulations, while others have had to close because of staffing shortages, and many are just throwing in the towel on ECE. This is particularly true for family child care (FCC) providers, many of whom were older and have decided to retire. A unique anomaly in the FCC licensing regulations also allows FCC providers to provide care in another home (not their own) and so, some have closed because homes have been sold to take advantage of the increase in real estate prices. Diana reported that the industry was hit very hard in January and went from 200 closures before January 2022 to 400 in January. Mike reported that more FCC programs are closing, and community-based centers entering the system.

Similarly, Sarah reported that school-based and On My Way Pre-K programs, which require a degreed teacher, were experiencing staffing challenges and a lack of available substitutes. They were trying to recruit ‘special’ teachers to serve as teachers in the classroom. Most districts have cancelled their peer-learning communities, so opportunities for support among teachers and reflecting on data to improve instruction are not available. Indiana is not collecting data on the impact of COVID on school-based preschools right now, but they did just sign an agreement

with a researcher at Michigan State University to participate in a study. They are still collecting Kindergarten Readiness data (at four time points) with I-SPROUT.

Tonia also reported staffing challenges are greatly impacting Head Start and Early Head Start programs. Most are operating at 60-65% of capacity due to staffing shortages. This is due to multiple factors, including poor wages (e.g., teachers can work at Amazon and make more money) and a vaccine mandate for staff by the federal Office of Head Start that was to go in effect by January 31, 2022. One program had seven staff quit because they refused to get vaccinated. Staff quality is a big concern to maintain program standards, and programs are experiencing a dearth of candidates applying with any/appropriate credentials. Tonia reported that program directors are in a difficult place because they lose families if they can't staff a classroom with a highly qualified candidate. Indiana Head Start is also part of the national lawsuit against the Office of Head Start (OHS) regarding the vaccine mandate.

Quick Stats:

- Nicole reported that 32 programs that received child care stabilization grants closed from 12/1/2021-1/20/2022 and had to return the federal dollars.
- Amanda reported that approximately 700 programs closed in 2021. Pre-pandemic, the ELAC annual report identified 5,000 early care and education programs, and most recent data to be released mid-February in the Early Learning Advisory Committee (ELAC) annual report identified 4,200 programs.
- Amanda reported that the upcoming annual report/needs assessment that The Community Group (TCG) produces for ELAC found that there were 113K children in child care in 2019, and just 83K in 2022, representing a “loss” of about 30K children from child care. Where did they go? Most likely to Family, Friend, and Neighbor (FFN) care, unregulated care, or home with parents.
- Mike reported recent data indicates 160 FCCs closed in 2021. Including previous years, about 400 FCC programs have closed since 2018.
- Diana reported that of the \$800M that Indiana put towards two-week closure grants, \$795M was spent just in the month of January.
- Tonia shared federal Head Start data on programs that were open during COVID, and Indiana had about 69% report being open. When programs close, they are trying to maintain touchpoints with the child and family to provide resources and keep an eye on the well-being of children.

Key Reports:

- [Executive Summary](#) of ELAC report on impact of COVID through June 30, 2021, and recommendations on how to strengthen system of supports.
- Story of impact especially [in rural areas](#) on families and child care.

Staffing Crisis is at Historic Levels and Greatest Barrier to Access to Quality. As it has nationally, the pandemic has brought into stark relief the fundamental problems with creating a high-quality system of early care and education. All things related to staffing - wages, preparation, capacity, supply, retention—are basically decimating the early care and education system. Indiana has some data on the workforce, and the Department of Education is launching a

new staff recruitment portal so there will be one statewide access point for educators' birth through grade 12. Mike noted that, *"the one thing that Indiana has never had, and that COVID has only exacerbated, is an educated, professionalized workforce. We wouldn't be talking about instructional quality if we had people in the classroom who truly understood what that meant, and now those people that are educated and are strong instructional teachers are so mired in sanitizing, masks, and all the issues and mental health - they do not have time to do that. They don't have time to do instructional things – the biggest barrier to quality is the workforce, and that was true five years ago."*

Indiana has not yet engaged in a strategic, comprehensive planning process to ensure there is sufficient, adequately prepared, culturally diverse and compensated, highly qualified staff for all early care and education programs to meet the needs of children and families. Maybe the time is now for a serious study of the ECE workforce in Indiana?

A few bright spots that are emerging in Indiana:

Increased investments in business supports and mental health to boost providers out of crisis mode. Providers are having trouble thinking about the future when they are so steeped in crisis. Mental health of providers and children is an ongoing concern. Nicole is investing federal dollars in group sessions for providers with licensed clinicians. The state is creating an Employee Assistance Program for all child care workers, and increased funding to SHINE to offer group sessions of 12 weeks with licensed clinicians.

On the flip side, providers have access to significant federal dollars. Though these are one-time, short-term funding, this creates a great need for better business capacity and planning. Nicole also noted that her staff is dealing with increased cases of fraud because of the additional dollars. SPARK is partnering with Civitas Early Learning and First Children's Finance to offer increased business management and capacity building to support providers and help them see the future - how can they sustain their program after 2023 when federal relief funding ends? SHINE saw some movement in quality because of their technical assistance (which is all voluntary). For example, 5% of programs enrolled in SHINE increased at least one level on PTQ and they have seen about a 1% increase in programs enrolling in PTQ.

Louise Stoney is working with Nicole on a "contracts-based" financing for child care that will require the provider to use a child assessment that is built into the online management system. They are considering three approved child assessments: Teaching Strategies Gold, [Cognitive Toybox](#), and [Kaymbu](#) from HighScope. This will be a huge shift for providers; however, this is in the planning stage right now. It is expected to be piloted in a few months with an urban provider(s) serving at least 100 children and rural provider(s) serving 50 children. Early Learning Indiana will also launch a child care marketplace, shared services model shortly.

Governor created Office of Kindergarten Readiness in INDOE and other pending bills impacting state ECE system. INDOE is currently interviewing for a Director of the Office of Kindergarten Readiness, which may provide more capacity for the department. Sarah reported that the focus on quality has increased and there has been talk of identifying a common quality assessment for all programs (this is much needed, especially with the results of the longitudinal study of On My Way PreK, which found low instructional quality scores even in 3 and 4 staff PTQ settings).

New legislation amended membership and revised the duties of the Early Learning Advisory Council, and others related to funding, study of cost of quality, and waiver of co-pays.

The state has a strong network of local community foundations. Amanda shared that because of earlier Lilly Endowment funding, all 92 counties have a community foundation, more than half with strategic plans focused on early care and education. Many are attracting other local funds, including United Way and philanthropic funding to support goals, such as the Wellborn Baptist Foundation funds - Aleisha's program. TCG convenes some of the community foundations monthly and some have received funding through Early Learning Indiana to create shared services model.

Quick Stats:

- See the ELAC, 2020 Annual Report [Interactive Database on Workforce](#), and other issues.
- [Early Learning Access Map](#) and Interactive database provides good data on access and opportunities to improve quality across Indiana.
- Diana reported that INAEYC had 1,300 teachers in the TEACH program and within this cohort, there was less turnover than other teachers not receiving the supports.

Key Reports:

- Longitudinal Study of On My Way PreK and NORC study of Kindergarten Readiness are [here](#). Read the "fine print," see page 11 on scores on sub-scales of CLASS in OMW and comparison.
- SPARK is entering its third year of operations. See Annual Reports from 2019-20 and 2020-2021 [here](#).

Considerations and Opportunities for a Path Forward for Indiana's Early Care and Education System

Nicole provided a good frame for considering the path forward in Indiana to improve access to quality given the status of early care and education system - *"How can the state and other leaders embed strategies to improve quality, so they feel like a lifeline rather than a burden while addressing the chaos, to offer hope to programs, providers, and parents."*

Diana and Charlie emphasized the need to build/strengthen the system of Indiana's ECE system. Diana's advice was, *"Projects are not silver bullets; those days are gone. We need to address the systemic barriers of quality."*

Based on our interviews, the following priorities represent opportunities for a new path forward for Indiana:

- Historically underserved communities, including families of color, poor, immigrants, and programs offering nontraditional working hours. Often, these families rely on family child care, registered ministries, or FFN, and due to the pandemic, parents seem to increasingly prefer this type of care; at the same time, data indicates the (licensed) family child care programs are closing at a greater number than center care.
- Understanding the true cost of quality care and funding programs/providers sufficiently, including adequate compensation. Nicole is gathering data on costs through the child care stabilization grants and pending legislation that, if passed, could help to study cost of

care. It would be needed for all ages 0-5 and in all settings. Indiana piloted a cost of quality study in 2017, supported by NIEER's Cost of Preschool Quality Tool. See page 28 of the [ELAC Annual Report](#) for the findings. The data was never used intentionally to improve funding for quality. This study could be updated/revised.

- A long-term strategy for keeping great people in the classroom with kids and building a pipeline of great leaders at the local level. Indiana had hoped to receive a PDG B5 Grant to address this with a 3-5 ten-year plan but did not receive the renewal grant. There may be another opportunity if some version of the federal Build Back Better legislation passes, or with a re-direction and leveraging on existing projects/funding toward a true, comprehensive plan for the early care and education workforce.
- Two-generation models and comprehensive local solutions to respond to the needs of families. Indiana, as other states across the country, are seriously addressing the mental health, economic, and health needs of families of young children due to and resulting from the pandemic, and instability of family life and child care. It seems that the network of community foundations, some of which have successfully brought key partners and public and private funders together to support families of young children, could be leveraged and connected more directly to and between the state ECE system. This is what other states such as Louisiana, Oregon, Virginia, and North Carolina have done to create strong local infrastructure that both informs state policy and drives quality practice locally.

To sum up, the interviews confirmed what we are hearing and know - the early care and education system (workforce) is in peril. But given the stark impact on families, businesses, and children that has now become quite visible to policymakers, there may be an opportunity for Indiana to make significant systemic change. To conclude, to paraphrase Charlie, *“The local driving of change is important if connected to an infrastructure. But it is not connected to a bigger, state-wide vision, and so we throw away a lot of money and spend a lot of time and resources where it would be better spent if it was going toward something. This is not how to make comprehensive long-term change - it is a small burst of change, without fundamental shifts and changes.”*