

# Massachusetts Early Childhood Support Organization (ECSO)

## Year 4 Annual Evaluation Report



**December 2024**

**Submitted by:**

Kerry G. Hofer and Wendy Wei  
Abt Global  
6130 Executive Boulevard  
Rockville, MD 20852

**Submitted to:**

New Profit  
99 Bedford Street, Suite 500  
Boston, MA 02111

Massachusetts Department of Early Education & Care  
50 Milk Street, 14th Floor  
Boston, MA 02109



## About This Report

This report presents findings from Year 4 of Abt's evaluation of the implementation and impact of the ECSO initiative.



Abt Global LLC | 6130 Executive Boulevard | Rockville, MD 20852

## Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>1. Introduction to ECSO Initiative</b> .....	<b>1</b>
<b>2. Learnings to Date</b> .....	<b>5</b>
<b>3. Impact Evaluation Design</b> .....	<b>6</b>
Research Questions .....	6
Sample .....	7
Instructional Leaders .....	7
Educators .....	8
Data Sources in this Report .....	9
Instructional Leader Survey .....	9
Educator Survey .....	9
Implementation Fidelity Matrices .....	9
ECSO and BPS Support Delivery .....	9
Analysis .....	10
Statistical Power .....	11
<b>4. Impact Findings</b> .....	<b>12</b>
Instructional Leader Outcomes .....	12
RQ1. What is the impact of one year of ECSO initiative participation on instructional leader confidence compared to leaders in similar non-supported programs? .....	13
RQ2. What is the impact of one year of ECSO initiative participation on positive instructional leader practices compared to leaders in similar non-supported programs? .....	14
RQ7. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving leader knowledge, attitudes, and practices? .....	15
Educator Outcomes .....	16
RQ3. What is the impact of one year of ECSO initiative participation on educator support for instructional practices compared to educators in similar non-supported programs? .....	17
RQ4. What is the impact of one year of ECSO initiative participation on educator planning time compared to educators in similar non-supported programs? .....	18
RQ5. What is the impact of one year of ECSO initiative participation on educator use of curriculum and child assessment tools compared to educators in similar non-supported programs? .....	18
RQ6. What is the impact of one year of ECSO initiative participation on educator retention compared to educators in similar non-supported programs? .....	19
RQ8. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving educator knowledge, attitudes, practices, and child skills? .....	20
Moderators of Impact .....	21



RQ9. To what extent does the impact of the ECSO initiative vary by key program and participant characteristics? .....21

Subgroup Analysis.....22

    Impacts on posttest scores depending on cohort .....22

    Single-year gains depending on ECSO.....23

Baseline Equivalence .....23

**5. Implementation Findings .....24**

    RQ10. To what degree did ECSOs implement their model with intended fidelity?.....24

    RQ11. To what degree are program variations in supports dosage (overall support hours, coaching hours) associated with variations in program-level gains? .....28

**6. Implications and Next Steps .....30**

    Implications for the Initiative .....30

    Implications for State Policy.....31

    Implications for the Larger Community .....31

**7. APPENDICES ..... 1**

**Appendix A. Sample Details .....A-1**

**Appendix B. ECSO Fidelity Matrices, 2023-24..... B-3**

**Appendix C. Data Tables..... C-1**

**Appendix D. Delivered Supports by CLI and EEP ..... D-1**

**Appendix E. 2-Year Impacts in Cohort 3..... E-1**

**Appendix F. 3-Year Gains in Cohort 2 ..... F-6**



List of Exhibits

Exhibit 1. ECSO Initiative-Wide Theory of Change..... 2

Exhibit 2. ECSO Service Delivery Timeline, by Cohort..... 4

Exhibit 3. Research Questions and Primary Data Sources..... 6

Exhibit 4. Full QED Sample of EEPs That Were Active in Their First Year of Participation..... 7

Exhibit 5. ECSO EEP Leader Analytic Sample..... 8

Exhibit 6. ECSO EEP Educator Analytic Sample..... 9

Exhibit 7. Data Collection Activities Referenced in This Report .....10

Exhibit 8. Research Questions Regarding Instructional Leaders ..... 12

Exhibit 9. Effect Sizes for Impacts on Leader Outcomes ..... 13

Exhibit 10. Impacts on Leader Confidence ..... 14

Exhibit 11. Impacts on Positive Leader Practices ..... 15

Exhibit 12. Changes Attributed to ECSO by Treatment Group Leaders.....15

Exhibit 13. Research Questions Regarding Educators ..... 16

Exhibit 14. Effect Sizes for Impacts on Educator Outcomes ..... 17

Exhibit 15. Impacts on Educator Support for Continuous Quality Improvement..... 18

Exhibit 16. Impacts on Educator Planning Time ..... 18

Exhibit 17. Impacts on Educator Curriculum and Assessment Use ..... 19

Exhibit 18. Impacts on Educator Plans to Stay ..... 19

Exhibit 19. Changes Attributed to ECSO by Treatment Group Educators.....20

Exhibit 20. The Impact on Two Illustrative Leader Outcomes Moderated by Leader Tenure at Program<sup>1</sup> ..... 22

Exhibit 21. Implementation Fidelity by ECSO, Cohort, and Key Component .....24

Exhibit 22. Hours of Support Intended and Delivered to Participants in their First Year of Participation by ECSO and Cohort.....25

Exhibit 23. Average Monthly Hours of Support Delivered to an Individual EEP in Its First Year of Participation by ECSO and Cohort.....26

Exhibit 24. Format of Leader Supports by ECSO and Cohort.....27

Exhibit 25. Topics of Leader Supports by ECSO and Cohort.....28



# Massachusetts Early Childhood Support Organization (ECSO) Year 4 Annual Evaluation Report

## Executive Summary



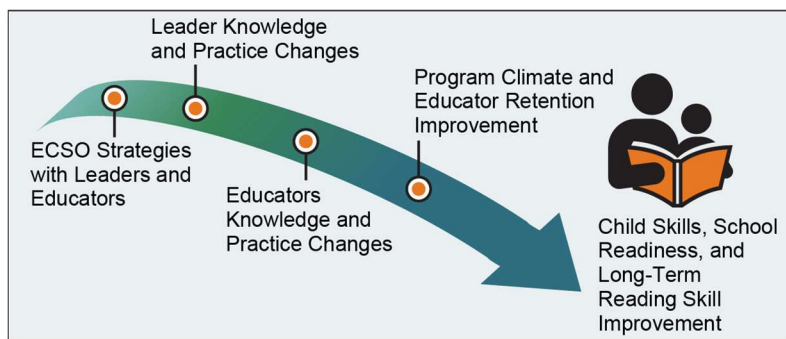
High-quality early education experiences can significantly improve student success in later schooling<sup>1</sup>. Early education programs

(EEPs) strive to enable their staff to deliver best practices to the children for whom they care; indeed, many initiatives focus on supporting educators with curriculum implementation, instructional improvements, data use, and other positive strategies to improve young children’s experiences. EEP leaders, however, tend to receive much less support despite being a more stable population than educators. Effective EEP leaders can drive meaningful improvements that benefit educators, children, and their families<sup>2</sup>.

Recognizing the need for more EEP leadership support *and* the potential for action at the leadership level to enact real program improvement, the

Massachusetts Department of Early Education and Care (EEC) together with New Profit, a venture philanthropy organization, launched a public-private partnership initiative in 2020. The Early Childhood Support Organization (ECSO) initiative aims to improve the quality of early education programming in Massachusetts by supporting leaders to strengthen their organizational climate, provide job-embedded professional learning (JEPL) opportunities for educators, support the use of curriculum and child assessments, and engage in continuous quality improvement. By strengthening leaders’ skills, the initiative aims to ultimately enhance educators’ provision of high-quality instruction that promotes positive outcomes for young children. The theory of change behind the initiative conceptualizes ultimate benefits for children as a cascade of improvements beginning with leaders.

Since 2021, EEC and New Profit have been contracting with three intermediary



<sup>1</sup> Gormley, W. T., Amadon, S. Magnuson, K., Claessens, A., & Hummel-Price, D. (2023). Universal Pre-K and College Enrollment: Is There a Link? *AERA Open*, 9 (1), 1-17.

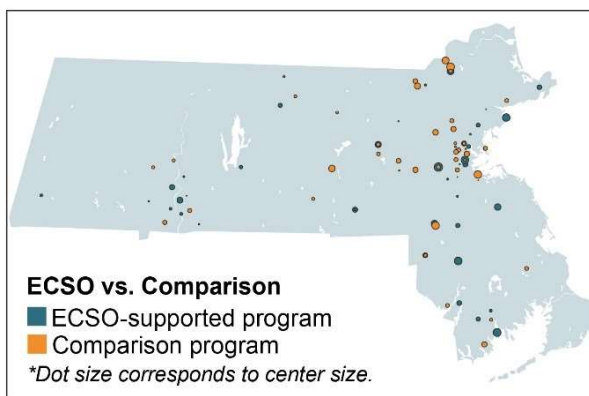
<sup>2</sup> Senge, P. M. (2006). *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Penguin Random House.

organizations – three ECSOs – to implement the initiative. These organizations include:

- The Children’s Literacy Initiative (CLI);
- Flamingo Learning (Flamingo) at the University of Florida’s Lastinger Center for Learning; and
- Early Education Leaders at UMass Boston (UMB) in partnership with Start Early.

The ECSOs have been providing four successive cohorts of licensed center-based EEPs across Massachusetts with two years of leader and educator supports, including coaching, professional learning opportunities, and communities of practice focused on continuous quality improvement, JEPL, curriculum implementation, child assessment use, and other evidence-based positive practices. Each ECSO implements a model of supports that aligns with EEC expectations and also includes ECSO-specific elements. For example, one ECSO provides specific and direct coaching for educators as well as leaders; another ECSO offers substantial online coursework for both leaders and educators to optimize learning potential.

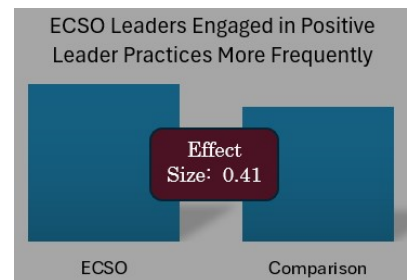
EEC and New Profit contracted with Abt Global, an independent research, evaluation, and technical assistance firm, to conduct an implementation and impact evaluation of the



ECSO initiative. This report specifically examines the implementation and impact of the first year of the two-year ECSO initiative, focusing on ECSO-supported EEPs in the third and fourth cohorts relative to a matched sample of non-participating (i.e., comparison) EEPs. Although these findings are preliminary and the impact evaluation will not be completed until after two years of initiative delivery, this report offers valuable insights into the early impacts of the ECSO initiative.

**Implementation.** During the first year of participation for Cohort 3 EEPs (2022-23) and Cohort 4 EEPs (2023-24), ECSOs provided programs with 3-12 hours of leader and educator supports per month, depending on ECSO model. Each ECSO came close to or exceeded their support dosage goals, and each implemented the majority of their individual model’s key components as intended.

**Leader Impact.** After the first year of participation, program leaders in



ECSO-supported EEPs had higher confidence in their ability to support their educators with data reflection and planning and engaged in more positive leadership practices than program leaders in similar EEPs that were not participating.

**Educator Impact.** Educators in ECSO-supported EEPs were observed by leadership more frequently, were more likely to use a curriculum, and were more likely to plan on staying in their EEP than educators in the comparison group. They were less likely than comparison educators to be provided with dedicated planning time and to receive support for child assessments.

**Preliminary two-year impacts for Cohort**

**3.** Early analyses of impacts on Cohort 3 after two full years of participation suggest even stronger program impacts on the described outcomes for the fully-powered impact evaluation, at which time we will also investigate the impact of the initiative on observed classroom instructional and interactional quality.

**Implications.** The interim results of this impact evaluation are informing state policy regarding the initiative’s future and other similar initiatives. Additionally, they offer insight into our understanding of the duration and intensity of leader supports needed to foster positive shifts in the delivery of services to young children.

*“Our work with [ECSO] has completed shifted us as leaders. It has provided us a protected space to really learn as leaders and then implement our new skills. It has also helped us define our vision and develop systems for sustainability.”*

-Program Leader in ECSO Site

*“Being a member of the ECSO has ignited a spark in me. I love doing this work and lately we’ve had some bumps but being a part of this community ensures that we have support and the tools for improvement.”*

-Program Leader in ECSO Site

*“Since our work with [ECSO], our observations, reviewing of data, and supporting staff collaboration have all increased and now have more sustainable systems around them. We have been able to align all that we do so everything is more connected and more fluid.”*

-Program Leader in ECSO Site

*“The ECSO has given staff the opportunity to work alongside each other and hear others’ points of view. It’s a great start to helping staff collaborate and learn from one another. It is nice to stop and reflect on how things work or might not work. It is also good to see what others do within the program.”*

-Educator in ECSO Site

*“I have been reminded of how important it is for my interactions to be more intentional when I enter play with the children in the classroom.”*

-Educator in ECSO Site

For more information on the ECSO evaluation, please contact: [ecsoeval@abtassoc.com](mailto:ecsoeval@abtassoc.com)



## 1. Introduction to ECSO Initiative

---

*“Most of the focus in this profession is on the teachers (which does need to happen); however, there is very little offered when it comes to administration. Working with our coach has been so helpful to not only learn and implement their strategies but to help with our own professional and programmatic goals. I feel this is finally filling in a large hole that has been empty for our admin team for sure!”*

– Program Leader in ECSO Site

---

In early care and education programs, educators who work intensively and directly with children every day to support their development are the primary agents of change for children and often the focus of new initiatives. However, the leaders who support those educators play an extremely critical role, as well, and often do not receive targeted supports for their practice. Recognizing that gap, in 2020 the Massachusetts Department of Early Education and Care (EEC), together with New Profit, launched the Early Childhood Support Organization (ECSO) initiative through a public-private partnership.

### Key Initiative Features

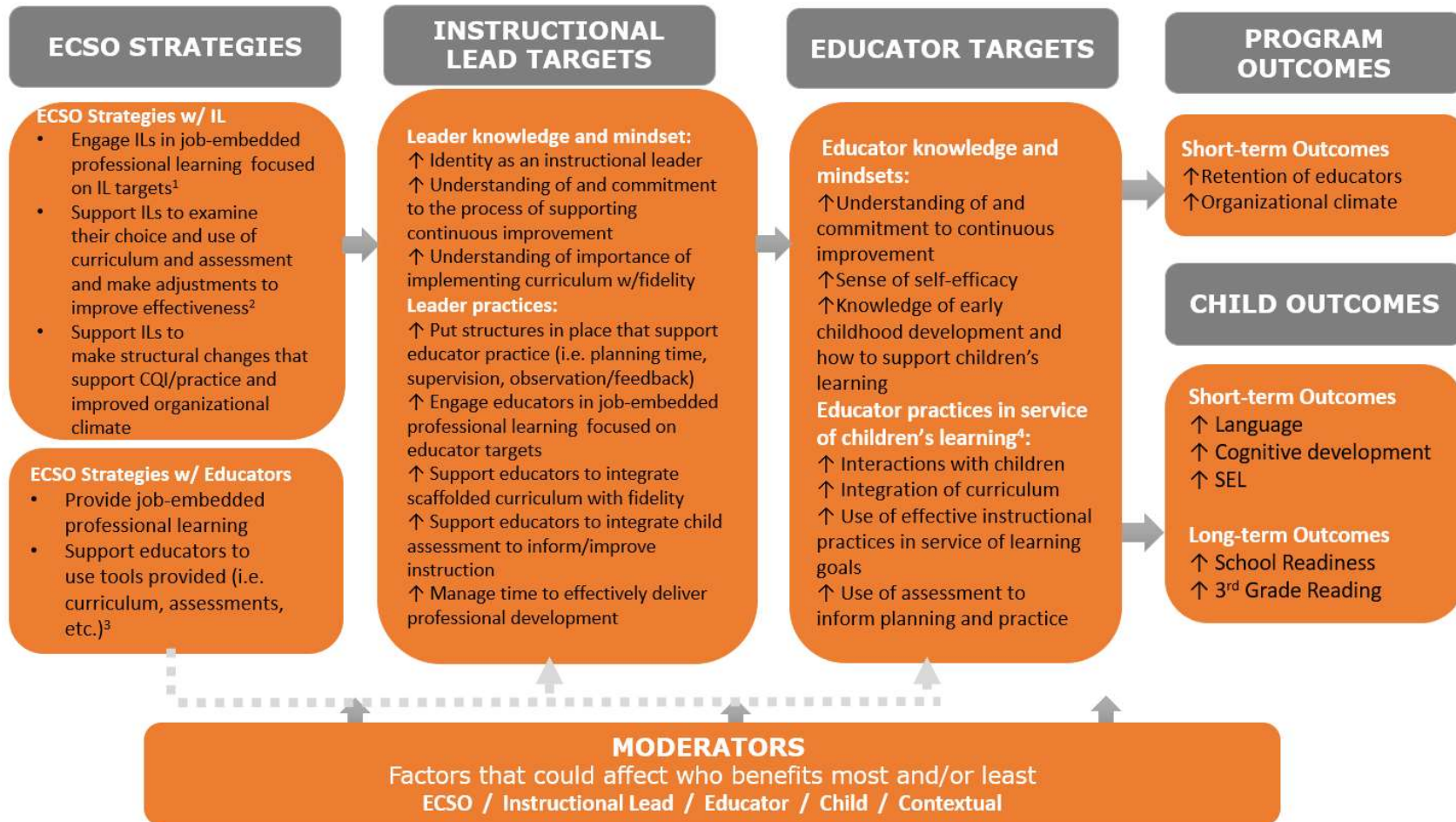
- 2 years of intensive support to licensed early education programs in MA
- Early education programs matched with 1 of 3 support providers
- Monthly one-on-one coaching and professional learning for leaders
- Supports focused on supporting leaders and educators around the process of data-driven continuous quality improvement

The ECSO initiative was designed to improve early education and care provider (EEP) quality primarily through strong support of program leaders. Three intermediary organizations, ECSOs, work with leadership teams at licensed EEPs across Massachusetts to help leaders strengthen their organizational climate, provide job-embedded professional learning (JEPL) opportunities for educators, support the use of instructional curriculum and child assessments in their program, and use continuous quality improvement to improve their programs. This focus on leaders, who tend to be more stable/less mobile than educators, can help sustain positive impacts for programs long after the initiative ends.

EEC and New Profit contracted with three organizations—the Children’s Literacy Initiative (CLI), Flamingo

Learning (Flamingo) at the University of Florida’s Lastinger Center for Learning, and the Early Education Leaders Institute at UMass Boston (UMB) in partnership with Start Early—each of which works in service of the initiative-wide goals and components but also brings unique perspectives and model facets to the leaders and EEPs they work with directly. EEC and the ECSOs provide programs with supports, resources, and financial incentives, as well as coaching and training, to help program leaders use tools in their practice. Four cohorts of EEPs have been supported to date. Ultimately, the initiative aims to empower EEP leaders to support educators in their provision of high-quality instruction that promotes positive outcomes for young children. The initiative-wide theory of change is in Exhibit 1 on the following page.

Exhibit 1. ECSO Initiative-Wide Theory of Change<sup>3</sup>



Source: Harvard Center on the Developing Child, version date 10/5/21.

<sup>3</sup> A revised version of the initiative-wide theory of change is currently being used for ECSO supports starting in the 2024-25 school year, but this Exhibit represents the working theory at the time of the findings in this report.

The three *ECSO-specific* models are described briefly in the text box on the right.

There are large model distinctions in how ECSOs directly support educators. CLI's model involves the provision of substantial hours of coaching and training/professional development directly to infant, toddler, and pre-k educators. In pre-k classrooms, CLI supports the use of their own *Blueprint for Early Learning* curriculum but also supports instruction/curriculum use in infant and toddler classrooms. Flamingo utilizes Boston Public Schools (BPS) support for a small sample of the pre-k classrooms in two of its Cohort 3 programs, and they also offer optional online coursework for educators in all of their EEPs; the majority of the BPS educator supports are geared towards pre-k classrooms as opposed to younger ages. UMB does not offer direct educator supports. BPS educator supports focus on implementing the *Focus on Pre-K/Focus on 3s* curricula.

New Profit contracted with Abt Global to evaluate the implementation and impact of the ECSO initiative. After a pandemic-related delay in the fall of 2020, the initiative began with a pilot year in March of 2021 (Exhibit 2). In the pilot year, the three ECSOs began supporting an initial cohort of 28 licensed center-based EEPs across Massachusetts. The ECSOs onboarded a second cohort of 27 EEPs in the summer of 2021, a third cohort of 26<sup>4</sup> EEPs in the summer of 2022, and a fourth cohort of 27<sup>5</sup> EEPs in the summer of 2023.

## Three ECSOs

### Children's Literacy Initiative (CLI)

CLI's model involves alternating monthly training and professional learning community meetings for instructional leaders as well as bi-monthly coaching for leaders and in-person coaching for educators. Leaders begin by covering leader identity, move to putting structures in place that support educator practice (like planning time, observation, etc.), then discuss supporting educators' curriculum implementation fidelity, making structural changes to support the use of continuous quality improvement and improved organizational climate, supporting professional learning for educators, and supporting the integration of child assessment data. Most of these topics are then revisited toward the end of the annual supports.

### Flamingo Learning (Flamingo)

Flamingo's model focuses on leadership *teams* and involves monthly community of practice meetings, a six-month online instructional leadership course, one-on-one coaching, and coaching certification for EEP leadership teams, as well as online coursework for educators. The content that is covered through these activities generally begins with focusing on leadership characteristics and effective leaders, moves to the role of curriculum and staff support around curriculum, next covers aspects of data reflection and use like observation, extending teacher thinking, and use of data, and finishes with supporting teachers' professional development.

### University of Massachusetts Boston (UMB)

UMB's model involves intensive coverage of the Essentials 0-5 Survey through five work sessions around getting to know the survey and data dialogue, root cause analysis, checking in on the plan-do-study-act cycle, and planning for sustainability along with end-of-year reflection and celebrations. UMB also supports leadership teams through monthly coaching sessions; topics for those sessions are tailored to suit individual team needs. Finally, UMB hosts monthly professional learning community meetings with leadership teams, culminating in an end-of-year Leadership Forum.

<sup>4</sup> 1 of these programs withdrew from the initiative during their first year of participation

<sup>5</sup> 2 of these programs withdrew from the initiative during their first year of participation



Exhibit 2. ECSO Service Delivery Timeline, by Cohort

	2021				2022				2023				2024			
	JFM	AMJ	JAS	OND	JFM	AMJ	JAS	OND	JFM	AMJ	JAS	OND	JFM	AMJ	JAS	OND
	2020-21 School Year		2021-22 School Year		2022-23 School Year				2023-24 School Year				2024-25 School Year			
Cohort 1																
Cohort 2																
Cohort 3																
Cohort 4																

Abt has been investigating the initiative’s implementation as well as gains made in supported programs since 2021. In the summer of 2022, Abt began an experimental investigation into the *impact* of the initiative, or the degree to which the ECSO initiative had positive impacts on supported programs and participants compared to a similar group of unsupported programs. To compare outcomes between the ECSO-supported EEPs and similar EEPs that did not have the benefit of ECSO supports, Abt recruited a group of 30<sup>6</sup> EEPs in the summer of 2022 to serve as a comparison sample to the third cohort of ECSO-supported EEPs, and another group of 33<sup>7</sup> EEPs in the summer of 2023 to serve as a comparison sample to the fourth cohort.

This report focuses on the **collective ECSO initiative implementation and impact for the combined sample of Cohort 3 and Cohort 4 treatment and comparison programs during their first of two years of participation** (2022-23 school year for Cohort 3 and 2023-24 school year for Cohort 4<sup>8</sup>). Where applicable, information on the impact for Cohort 3 after two years and the gains made in Cohort 2 after three years of participation is offered for context and to suggest what we might expect to see in the combined impact sample after the full two years of the intervention.

It is important to emphasize that this report focuses on **only the first year of a two-year intensive intervention**. This first year concentrates on shifting leader attitudes and mindsets. Early positive signs of improvement in key aspects of the theory of change as outlined in this report support promise for the long-term positive impact of the initiative. Findings from this interim report as well as the ultimate full impact evaluation will help underscore or adjust the theory of change to appropriately represent the levers responsible for expected change and when those changes begin to take shape.

<sup>6</sup> 2 of these programs withdrew from the evaluation during their first year of participation

<sup>7</sup> 8 of these programs withdrew from the evaluation during their first year of participation

<sup>8</sup> The Year 3 Annual Report also focused on a single year of the 2-year initiative, but it only included half of the full impact evaluation sample (Cohort 3 only).



## 2. Learnings to Date

Abt has been evaluating the implementation of the ECSO initiative since 2021. Since the start of the initiative, each ECSO has come very close to or has exceeded its goals for delivering supports to both instructional leaders and educators. In the first three years of the initiative,



<sup>1</sup> Because all 107 EEPs did not enter the initiative at the same time, the total hours of provided supports is differentially distributed across EEPs depending on their tenure with the initiative; put more simply, some of these 107 have received much more support from the ongoing initiative because they were among the earlier cohorts to be onboarded.

ECSOs provided over 17,000 hours of leader and educator supports to 107 EEPs (see infographic to the left).

In addition to examining the implementation of the ECSO initiative, Abt has also been evaluating the degree of change in desired outcomes for leaders, educators, and classrooms. Overall, we have seen gains over time on key outcomes of the initiative for EEP leaders and, to a lesser degree, educators. After multiple years of ECSO supports, program leaders are generally more confident in their roles, engaging in more positive leadership practices, supporting staff to collaboratively reflect on data, etc.

We have seen educators generally supported more by their leadership and, in some cases, having more dedicated planning time and supported on the curriculum they use, though we have not seen positive shifts in educator views of program climate or educator intentions to remain in the field. We have not yet seen strong improvements in observed quality of instruction and interactions in classrooms, though we do see larger improvements in infant and toddler classroom quality after more than one year of involvement in the initiative. It is important to note that in all of Abt’s learnings to date, we either (1) do not have a comparison group and so can only look at gains but not in relation to what would occur in the absence of the intervention, as in the case of Cohort 2, or (2) have only been able to look at a small sample or programs/participants that does not allow for robust investigations of impact, as in the case of Cohort 3. *This report* addresses both of those important caveats to what has been discussed in past publications for this project by offering early learnings from a full two-cohort experimental sample with a matched comparison group.



### 3. Impact Evaluation Design

Beginning in fall of 2022, Abt has been rigorously evaluating the impact of the initiative via a quasi-experimental design (QED) involving two cohorts of EEPs (Cohorts 3 and 4) and a set of matched EEPs that were not supported by the initiative. As earlier described, this report focuses on the interim impact of one year of supports for the full QED sample (Cohort 3 and 4 treatment and comparison programs). The full planned QED is designed to evaluate the impact of two years of ECSO supports (hence, we refer to findings in this report as *interim* because they reflect impact after only one year) and will include an examination of impact on observed classroom quality.

#### Research Questions

For this report, we investigated a specific set of research questions, outlined in Exhibit 3 below along with the data sources used to address each question, which are described more in a later section of this report.

**Exhibit 3. Research Questions and Primary Data Sources**

Research Question	ECSO Data	Leader Survey	Educator Survey
<b>Confirmatory Impact Questions</b>			
1. What is the impact of one year of ECSO initiative participation on <b>instructional leader confidence</b> compared to leaders in similar non-supported programs?		✓	
2. What is the impact of one year of ECSO initiative participation on <b>positive instructional leader practices</b> compared to leaders in similar non-supported programs?		✓	✓
3. What is the impact of one year of ECSO initiative participation on <b>educator support for instructional practices</b> compared to educators in similar non-supported programs?			✓
4. What is the impact of one year of ECSO initiative participation on <b>educator planning time</b> compared to educators in similar non-supported programs?			✓
5. What is the impact of one year of ECSO initiative participation on <b>educator use of curriculum and child assessment tools</b> compared to educators in similar non-supported programs?			✓
6. What is the impact of one year of ECSO initiative participation on <b>educator retention</b> compared to educators in similar non-supported programs?			✓
<b>Exploratory Growth Questions</b>			
7. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving <b>leader knowledge, attitudes, and practices</b> ?		✓	
8. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving <b>educator knowledge, attitudes, practices, and child skills</b> ?			✓
<b>Exploratory Moderation Questions</b>			
9. To what extent does the impact of the ECSO initiative <b>vary by key program and participant characteristics</b> ?		✓	✓
<b>Implementation Questions</b>			
10. To what degree did ECSOs implement their model with <b>intended fidelity</b> ?	✓		
11. To what degree are program variations in supports <b>dosage</b> (overall support hours, coaching hours) associated with <b>variations in program-level gains</b> ?	✓	✓	✓

**Sample**

Because EEPs in this impact study were not *randomly* assigned to be in the treatment or comparison conditions, we must ensure that the two groups of EEPs be as equivalent as possible on known variables at the beginning of the initiative so that any change seen can be attributed to the presence of the intervention and not other preexisting differences. For each cohort separately, we matched comparison programs to treatment programs based on three or four key variables<sup>9</sup> supplied by EEC: (1) capacity; a combination of (2) community need and (3) region; and (4) receipt of specific grant funding; each of which is defined below.

- *Capacity* is a categorization of the EEC ‘licensed capacity’ variable; we categorized the EEC information into programs that were *small* (less than 40 slots), *medium* (40-79 slots), *large* (80-120 slots), and *extra large* (more than 120 slots).
- *SVI x Region* is the combination of program Social Vulnerability Index (SVI, Zip) and Licensing Region. SVI (Zip) is the SVI score calculated by EEC using the program zip code. We categorized SVI into four groups: *low* (an SVI of 0.25 or less), *medium low* (between 0.26 and 0.50), *medium high* (between 0.51 and 0.75), and *high* (over 0.75) and combined that categorization with the five Licensing Regions (Central, Metro Boston, Western, Northeast, and Southeast and Cape).
- *C3 Funding* (Commonwealth Cares for Children/Child Care Stabilization Grants) is the average per-seat C3 funding provided by EEC. We categorized it into 4 groups. Note that the average C3 funding per seat is highly correlated with SVI (SVI is one of the key components of the C3 formula). It is also correlated with subsidy slots (a variable not used in this matching procedure), as providers can qualify for an equity bonus either through their SVI or the percent of children served who are receiving subsidies.

Cohort 3 matching/sample creation was done in the summer of 2022, and Cohort 4 was done in the summer of 2023. The number of programs is displayed in Exhibit 4, and the distribution of treatment and comparison programs across matching variables can be found in Appendix A.

**Exhibit 4. Full QED Sample of EEPs That Were Active in Their First Year of Participation**

Group	Treatment	Comparison	Total
Cohort 3	26	28	54
Cohort 4	25	25	50
Total	51	53	104

**Instructional Leaders**

The number and role(s) of the Instructional Leaders (referred to simply as ‘leaders’ throughout this report) differed by ECSO and EEP depending on structure, program size, ECSO model design, etc. Some EEPs only had a single leader, while others had several administrative staff and/or educators who shared responsibilities for staff supervision and management. Most leaders were center directors/administrators or assistant directors/administrators; a small percentage of leaders were educational coordinators or played other roles in the EEP but were involved in staff management/leadership. ECSO supports to leaders were applicable across classrooms with no specific focus on the age of children. There were approximately 170 leaders across cohorts and

<sup>9</sup> C3 funding was only used a matching variable for Cohort 3; Cohort 4 matching did not include this variable.

ECSOs, with an average of 1.7 leaders per EEP (range 1 – 7). Occasionally, an individual was part of the leadership team at more than one EEP. Most leaders identified as White Non-Hispanic (70-80%) female (~90%) English speakers (100%) with an average age of 48 years, and 80% had a bachelor’s degree or higher education degree. A full demographic table is included in Appendix A. This group of leaders is more diverse but more educated than the state as a whole; according to a [2020 report](#)<sup>9</sup> detailing the Massachusetts early care and education workforce (Douglass et al.), 98.5% of leaders in Massachusetts identify as female, 90% are White, 5% are Hispanic, 64% have 15 years or fewer years of program administrator experience, and 73.4% have at least a bachelor’s degree.

The analytic sample for leaders was limited to those who responded to the key survey questions of interest in *both* the fall and spring (i.e., complete case analysis). Sixty-one leaders were included in the final analytic sample (Exhibit 5), with 33 leaders from 27 ECSO EEPs and 28 leaders from 25 comparison EEPs. The majority of EEPs (83%) were represented by a single leader who responded at both baseline and follow-up. More details about the sample for the Leader Survey can be found in Appendix A.

**Exhibit 5. ECSO EEP Leader Analytic Sample**

	Programs Represented in Analytic Sample			Leaders in Analytic Sample		
	Treatment	Comparison	Total	Treatment	Comparison	Total
Cohort 3	13	11	24	16	12	28
Cohort 4	14	14	28	17	16	33
<b>Total</b>	<b>27</b>	<b>25</b>	<b>52</b>	<b>33</b>	<b>28</b>	<b>61</b>

**Educators**

There were approximately 990 educators (lead or co-educators, not counting assistant teachers, substitutes, floaters, etc.) across cohorts and ECSOs regardless of whether they received direct ECSO supports with an average of 10 educators per EEP (range 2 – 56). Of note, CLI provided direct educator coaching to all educators across child age groups; Flamingo *coaching* (provided by BPS) involved teachers of toddlers as well as preschoolers, and Flamingo offered online coursework to teachers across age groups.

Nearly all educators identified as female (95% or more in each cohort and experimental group), and two-thirds identified as White non-Hispanic individuals. Half of the educators held a bachelor’s degree or higher, and nearly all had an EEC professional teacher certification. The average years of experience in the early education field was around six years. This profile of educators is similar to the early childhood workforce in the state: 95.2% identify as a woman, 66% identify as White, 47% have five years of teaching experience or less, and 65% do not hold a bachelor’s degree<sup>10</sup>. A full demographic table is included in Appendix A.

The analytic sample for educators was limited to those who responded to the key survey questions of interest in *both* the fall and spring (i.e., complete case analysis). In the final analytic

<sup>10</sup> [Douglass, A., Kelleher, C., Zeng, S., Agarwal, V., Beauregard, B., Reyes, A., & Crandall, S. \(2020\). \*The Massachusetts Early Education and Care Workforce Survey 2019: Key Findings\*. Boston: University of Massachusetts Boston.](#)

sample shown in Exhibit 6, 279 educators were included, with 175 educators from 44 ECSO EEPs and 104 educators from 36 comparison EEPs. On average, approximately 8 educator responses (range 1 – 16) were included per ECSO EEP, and 4 educator responses (range 1 – 10) were included per comparison EEP. More details about the sample for the Educator Survey can be found in Appendix A.

**Exhibit 6. ECSO EEP Educator Analytic Sample**

	Programs Represented in Analytic Sample			Educators in Analytic Sample		
	Treatment	Comparison	Total	Treatment	Comparison	Total
Cohort 3	21	20	41	95	64	159
Cohort 4	23	16	39	80	410	120
<b>Total</b>	<b>44</b>	<b>36</b>	<b>80</b>	<b>175</b>	<b>104</b>	<b>279</b>

### Data Sources in this Report

The main body of this report describes findings on outcomes assessed with four measures. Along with the use of these measures, Abt also collected classroom observations; because we did not observe Cohort 4 classrooms at the end of their first year of implementation, we only present preliminary impact findings on classroom quality in Appendix E. The *final* report issued in the fall of 2025 will include findings on those measures.

#### Instructional Leader Survey

Abt administered an electronic survey to leaders in the fall and spring of the first year of each cohort’s participation in the initiative. The survey took less than 30 minutes to complete and asked questions about leaders’ experience with the ECSO initiative (treatment group only), perspectives as a leader, and supports received and provided to staff.

#### Educator Survey

Abt administered an electronic survey to all lead-/co-educators in the fall and spring of the first year of each cohort’s participation in the initiative. The survey took less than 30 minutes to complete and asked educators questions about their perspectives and experiences as an educator as well as supports they received from their program leadership. We provided a \$25 electronic gift card to each educator who completed the survey.

#### Implementation Fidelity Matrices

Abt supported each ECSO to complete a matrix assessing the degree to which they were able to put the initiative in place as they intended to in the first year of supports for Cohort 3 (2022-23) and Cohort 4 (2023-24). The matrices were developed with Abt in Year 2 of the initiative and adapted by the ECSOs each year as their models were refined.

#### ECSO and BPS Support Delivery

ECSOs and Boston Public School (BPS) recorded the hours of support they provided to leaders/leadership teams and, where applicable, directly to educators, in monthly worksheets they shared with Abt. Worksheets included information about how many hours were *planned/intended*, how many hours were *delivered*, and what the format and topic(s) of those supports were.

Exhibit 7 describes the data sources and collection methods. Full data tables for Cohort 2 after three years are provided in Appendix F, and Cohort 3 two-year data tables are in Appendix E.

**Exhibit 7. Data Collection Activities Referenced in This Report**

Data Collection Activity	Participants	Timeline
<b>Abt-Led Activities</b>		
Instructional Leader Surveys	ECSO- and EEP-identified leadership teams at each EEP	Cohort 3: Fall 2022 and Spring 2023 Cohort 4: Fall 2023 and Spring 2024
Educator Surveys	ECSO- and EEP-identified lead/co-educators at each EEP	Cohort 3: Fall 2022 and Spring 2023 Cohort 4: Fall 2023 and Spring 2024
Implementation Fidelity Matrices	ECSO leadership	Cohort 3: August 2023 Cohort 4: August 2024
<b>ECSO-Supplied Data</b>		
ECSO Support Delivery	Monthly ECSO-provided supports data	Cohort 3: July 2022 – June 2023 Cohort 4: July 2023 – June 2024
Boston Public Schools (BPS) Support Delivery	Monthly BPS-provided supports data	Cohort 3: July 2022 – June 2023 Cohort 4: N/A

**Analysis**

We present two main types of analyses throughout this report:

- We use **descriptive analyses** to provide covariate-adjusted average outcomes by condition (treatment and comparison) and to look at differential patterns by ECSO and cohort.
- We use **regression analyses** to test whether differences in leader or educator outcomes at the end of the first year of the initiative emerged based on condition (treatment versus comparison). Impacts on leaders were analyzed in single-level regression models reflecting the near 1:1 leader: program structure; impacts on educators were analyzed in multi-level regression models with educators nested within EEPs. In all regression analyses, we controlled for the following variables: baseline scores, SVI, program licensed capacity, and cohort. Additionally, in leader analyses, we controlled for leaders’ years of experience in their current program, whereas in educator analyses, we controlled for educators’ years of experience in ECE broadly.

As stated earlier in this report, analyses of survey data were limited to the sample of individuals who responded to the survey in *both* the fall and spring of their first year of participation; no key outcome or baseline data were imputed. Covariate data were nearly complete for all leaders and educators. For a very small number of leaders and educators (1 and 15, respectively, equivalent to < 5% of each sample), we used multiple imputation to estimate missing values for leaders’ or educators’ years of experience, which maximized the size of our final sample.

In addition to the overall impact of the initiative, we also investigated which contextual variables may be correlated with outcomes in ECSO EEPs and/or may be moderating the impact of ECSO supports. Within the treatment group, we considered dosage, or the amount of leader and educator supports per program, and how those amounts relate to changes we saw in key outcomes in ECSO-supported EEPs. However, dosage is highly related to ECSO so as to be nearly duplicative and did not vary much within ECSO. As such, the descriptive look at changes by ECSO can be thought of as equivalent to changes by dosage. We also looked specifically at EEP SVI, EEP subsidy rate, and EEP capacity as potential moderators for all outcomes, leader



years of experience at their current program (individual-level moderator) for leader outcomes, and teacher years of experience (individual-level moderator) for educator outcomes.

Finally, we compared leaders and educators in the treatment and comparison on key demographics and survey variables at baseline (fall) before the initiative began. Because participants were not randomly assigned to be in the treatment or comparison condition in this study, establishing baseline equivalence is critical so that any observed differences in the outcomes (spring) can be attributed to the initiative, rather than other preexisting differences. We examined the effect size of the difference in outcomes between the treatment and comparison conditions, where an effect size of less than 0.25 indicated equivalence for that variable between conditions.

### **Statistical Power**

A Minimum Detectable Effect, or MDE, is the smallest impact that an evaluation (with a given sample size, structure, etc.) can detect; in other words, the size of the actual impact that a given evaluation is designed to reliably estimate given an assumed level of chance probability. We present *effect sizes* for each analytic impact finding which allows us to compare the size of the effect for each outcome regardless of the scale with which it was measured. We have very little, if any, scientific evidence to suggest how large impacts on early educational leaders might be when interventions are designed specifically to support them<sup>11</sup>, though we do have some suggestions of the size of impacts for more general educational interventions. The What Works Clearinghouse, a federal source of evidence reviews of educational programs, has suggested that effect sizes of 0.25 or larger are “substantively important”<sup>12</sup> (p.77), though most of those impacts are on students. We used *PowerUp!*<sup>13</sup>, a popular study design power estimation tool, to estimate the MDE that our study was powered to detect using a set of informed parameter assumptions. For impacts on leaders, our study was powered to detect an MDE of ~.43, and for impacts on educators, our study was powered to detect an MDE of ~.28.

---

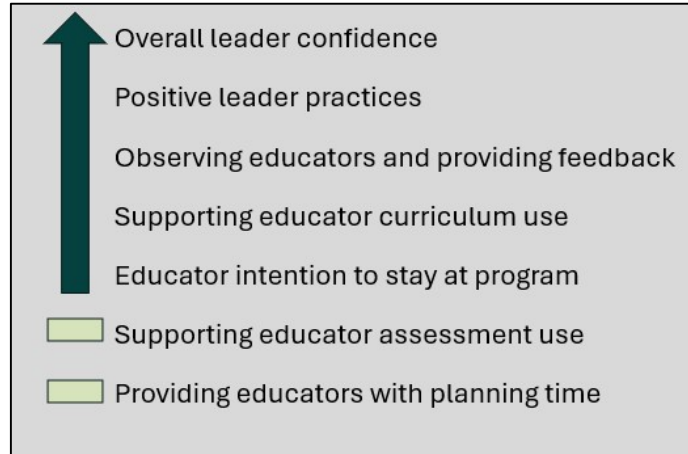
<sup>11</sup> [Douglass and G. Kirby. “Evaluating Leadership Development in Early Care and Education.” OPRE Brief #2022-141. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, US. Department of Health and Human Services, 2022.](#)

<sup>12</sup> [U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse \(2017\). \*What Works Clearinghouse Standards Handbook: Version 4.0.\*](#)

<sup>13</sup> [Nianbo Dong & Rebecca Maynard \(2013\) PowerUp!: A Tool for Calculating Minimum Detectable Effect Sizes and Minimum Required Sample Sizes for Experimental and Quasi-Experimental Design Studies, Journal of Research on Educational Effectiveness, 6:1, 24-67, DOI: 10.1080/19345747.2012.673143](#)

## 4. Impact Findings

The first year of implementation of the ECSO initiative across the full QED sample had positive impacts on both leaders and educators. Impacts were larger for leader outcomes than for educators, which aligns with expectations based on the theory of change. The graphic to the right summarizes findings on key constructs at a high-level. Each subsection of this chapter includes a summary graphic along with a narrative description of and analysis results for findings by contrast. Where appropriate, reference to impacts on Cohort 3 after two years highlights what we might expect to see once the full QED is complete.



### Instructional Leader Outcomes

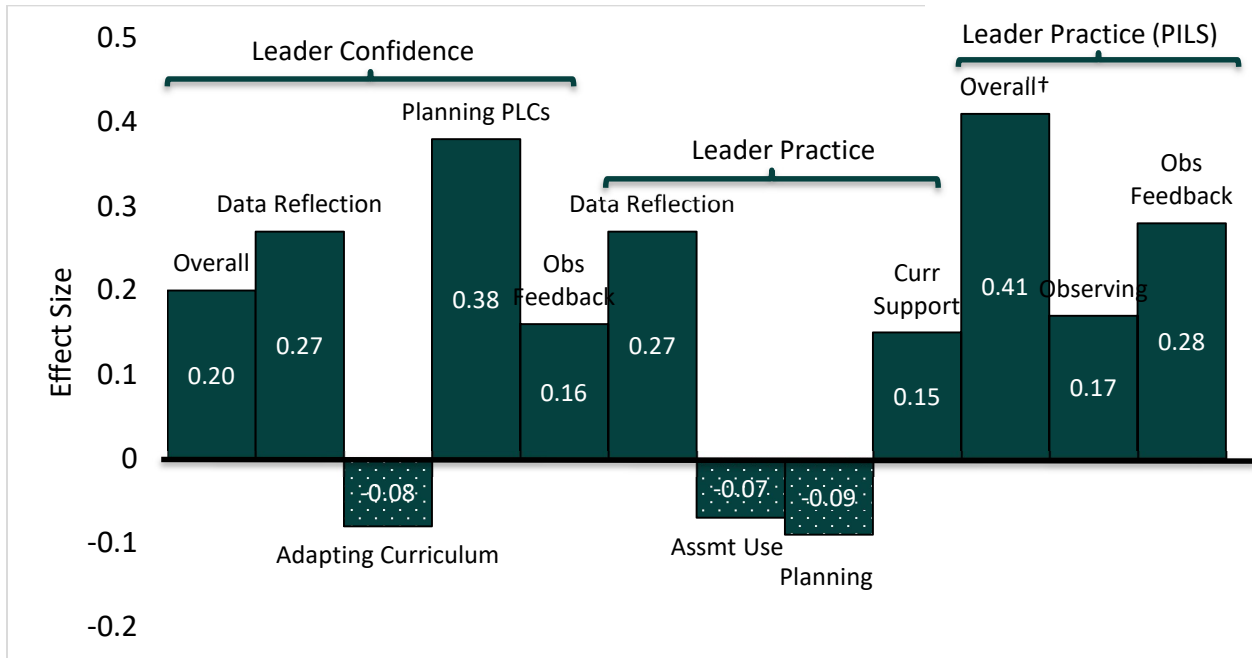
Exhibit 8 lists the research questions and then the specific contrasts/outcome measures analyzed to answer each question about impacts on leaders.

#### Exhibit 8. Research Questions Regarding Instructional Leaders

<b>What is the impact of one year of ECSO initiative participation on instructional leader confidence compared to leaders in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>Overall confidence as an instructional leader</li> <li>Confidence reflecting on data collaboratively with staff</li> <li>Confidence supporting educators to scaffold/adapt their curriculum to the needs of their classroom/individuals</li> <li>Confidence in planning/implementing professional learning communities for staff</li> <li>Confidence in providing constructive feedback based on observation</li> </ul>
<b>What is the impact of one year of ECSO initiative participation on positive instructional leader practices compared to leaders in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>Frequency of reflecting on data collaboratively with educators (leader-reported)</li> <li>Frequency of meeting with educators to establish and revise planning goals (leader-reported)</li> <li>Frequency of supporting educator curriculum implementation (leader-reported)</li> <li>Frequency of supporting educators to use and reflect on child assessment data (leader-reported)</li> <li>Frequency of observing educators (leader-reported)</li> <li>Frequency of providing educators with feedback from observations (leader-reported)</li> <li>Leader-reported PILS score</li> </ul>
<b>WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving leader knowledge, attitudes, and practices?</b>
<ul style="list-style-type: none"> <li>This will come from the spring-only question set towards the end of the leader survey about how much certain things have changed, asked only of treatment group.</li> </ul>

One year of the ECSO initiative had a positive impact on leaders’ overall and task-specific confidence and frequency of engagement in positive leadership practices such as engaging with their staff around collaborative data reflection, supporting their educators’ curriculum use, and providing feedback to educators following direct observation of their practices. Exhibit 9 below displays standardized effect sizes for all examined leader outcomes.

**Exhibit 9. Effect Sizes for Impacts on Leader Outcomes**



† $p \leq .10$

**RQ1. What is the impact of one year of ECSO initiative participation on instructional leader confidence compared to leaders in similar non-supported programs?**

*“The program has helped me become more confident as a mentor for my program.”* – ECSO EEP Leader

*“My confidence in my leadership abilities has increased as it provides the system and structure I needed, leading to a more structured approach to problem solving and effectiveness of coaching and teaching.”* – ECSO EEP Leader

The ECSO initiative had a positive impact on leader confidence, both overall and specific to tasks. We asked leaders to indicate their confidence as a leader across 21 practices on a 5-point scale ranging from 1 (not at all confident) to 5 (extremely confident). Practices included many central to the ECSO initiative’s theory; supporting educators to use observation data, supporting educators in their use of curriculum and providing constructive feedback to staff based on observations, etc.

Overall confidence was scored as the average rating across all 21 practices. Confidence in specific practices like reflecting on data collaboratively with staff and supporting educators to adapt their curriculum were 4 of the 21 practices we wanted to focus on specifically because of their alignment with initiative targets. Exhibit 10 shows the findings across these three constructs. We saw even larger positive impacts on Cohort 3 leader confidence after experiencing the full two years of the initiative.

*“My confidence, intentionality, and delegation skills have improved through this partnership.”* – ECSO EEP Leader

*“I feel more confident in my leadership abilities. I have learned more strategies to build a positive community throughout the center. I have learned and refined skills related to observing and giving feedback in a positive constructive way to promote growth. Before this ECSO I had some skills but they were not developed fully.”* – ECSO EEP Leader

**Exhibit 10. Impacts on Leader Confidence**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Average Leader Confidence	4.15	4.03	0.12	0.16	0.20	0.47
Confidence reflecting on data collaboratively with staff	4.07	3.82	0.25	0.22	0.27	0.26
Confidence supporting educators to adapt curriculum	4.23	4.28	-0.05	0.20	-0.08	0.80
Confidence planning PLC's for educators	4.22	3.85	0.37	0.26	0.38	0.17
Confidence providing constructive feedback from observations	4.31	4.17	0.14	0.24	0.16	0.54
Sample Size	30-31	29				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

**RQ2. What is the impact of one year of ECSO initiative participation on positive instructional leader practices compared to leaders in similar non-supported programs?**

The ECSO initiative had a positive impact on leader practice. We asked leaders several questions about how much they engaged in positive leadership practices including how often they engaged in collaborative data reflection with their staff, supported educators' use of child assessments/screeners, supported educators to establish/revise planning goals, and supported educator curriculum implementation. We also asked leaders to complete the Preschool Instructional Leadership Scale (PILS<sup>14</sup>) which inquired about the frequency with which they engaged in other positive leader practices like talking with teachers about developments in the field, observing instruction in classrooms, spending time helping teachers understand the value of professional standards, and making time for teachers to reflect together on classroom assessment data. The PILS was scored as the average rating across 17 practices [each item was rated from 1 (Never) to 5 (Every day)]. Observing educators and providing feedback based on observations were 2 of the 17 practices we wanted to focus on

*"I am doing more classroom observations and am less fearful to dive into situations headfirst instead of waiting."*  
 – ECSO EEP Leader

specifically. Leaders in ECSO-supported programs engaged in positive leader practices (except for supporting screening/assessment data use and planning goals) more frequently than similar leaders in comparison programs. Exhibit 11 shows the findings across these constructs. We also saw positive impacts on leader practices in Cohort 3 after two years of ECSO supports,

though the largest impacts tended to be across different practices than what Exhibit 11 shows for the full QED (Cohort 3 2-year impacts were larger for supporting assessment data use, educator planning meetings, and curriculum implementation support).

*"I know more about what I am looking for now than before. I have a clear view of what the environment should look like and what the teachers are supposed to be doing."*  
 – ECSO EEP Leader

<sup>14</sup> Horsley, H.L. & Fong, K. (2017). Preschool Instructional Leadership Survey. Unpublished measure.

**Exhibit 11. Impacts on Positive Leader Practices**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Collaborative data reflection with educators	2.64	2.40	0.24	0.22	0.27	0.27
Educator child assessment data use support	2.42	2.46	-0.04	0.27	-0.07	0.88
Educator planning meetings	2.42	2.50	-0.08	0.28	-0.09	0.77
Educator curriculum implementation support	3.16	3.00	0.16	0.34	0.15	0.64
Observations of educators	3.21	3.04	0.17	0.35	0.17	0.63
Provision of observation feedback to educators	2.69	2.44	0.25	0.28	0.28	0.37
PILS	2.67	2.43	0.24	0.14	0.41	0.10
<b>Sample Size</b>	26-27	26-28				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

**RQ7. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving leader knowledge, attitudes, and practices?**

To get a more nuanced understanding of the things that ECSO participants perceive as a real-life benefit of participation in the initiative, we asked *treatment group* leaders *in spring (end of their 1<sup>st</sup> year of participation) only* about whether certain practices had changed as a result of ECSO, and how much change they experienced (on a scale from 1 to 4). See Exhibit 12 for the full findings. Nearly all leaders (88%) experienced change on at least one outcome *because of* the

*"[ECSO] has helped me see that developing these skills for myself helps my work with teachers which creates a higher quality center environment all around."*  
 – ECSO EEP Leader

ECSO initiative. On average, leaders attributed change to the ECSOs for five outcomes, and one-third of leaders indicated that they both experienced change and attributed that change to the ECSOs for all eight outcomes.

**Group Leaders**

**Exhibit 12. Changes Attributed to ECSO by Treatment**

Outcome	# Attributing Change to ECSO	% Attributing Change to ECSO	How Much Change (if attributed change to ECSO)
My understanding of and commitment to the process of supporting continuous improvement has improved	24	73%	3.54
My identity as an instructional leader has improved	23	70%	3.48
I have engaged my educators more in job-embedded professional learning focused on their self-efficacy, knowledge of best practices, understanding of CQI, etc.	22	67%	3.73
I have gotten better at supporting my educators to integrate child assessment data to inform/improve their instruction	22	67%	3.36
I have gotten better at putting structures into place that support educator practice (like planning time, supervision, observation and feedback)	21	64%	3.62
My understanding of the importance of implementing a curriculum with fidelity has improved	19	58%	3.63
I have gotten better at supporting my educators to integrate scaffolded curriculum with fidelity	19	58%	3.58
I am better able to manage my time to effectively deliver professional development to my staff	19	58%	3.58
<b>Sample Size</b>	33		



**Educator Outcomes**

Exhibit 13 lists the research questions and then the specific contrasts/outcome measures analyzed to answer each question about impacts on educators.

**Exhibit 13. Research Questions Regarding Educators**

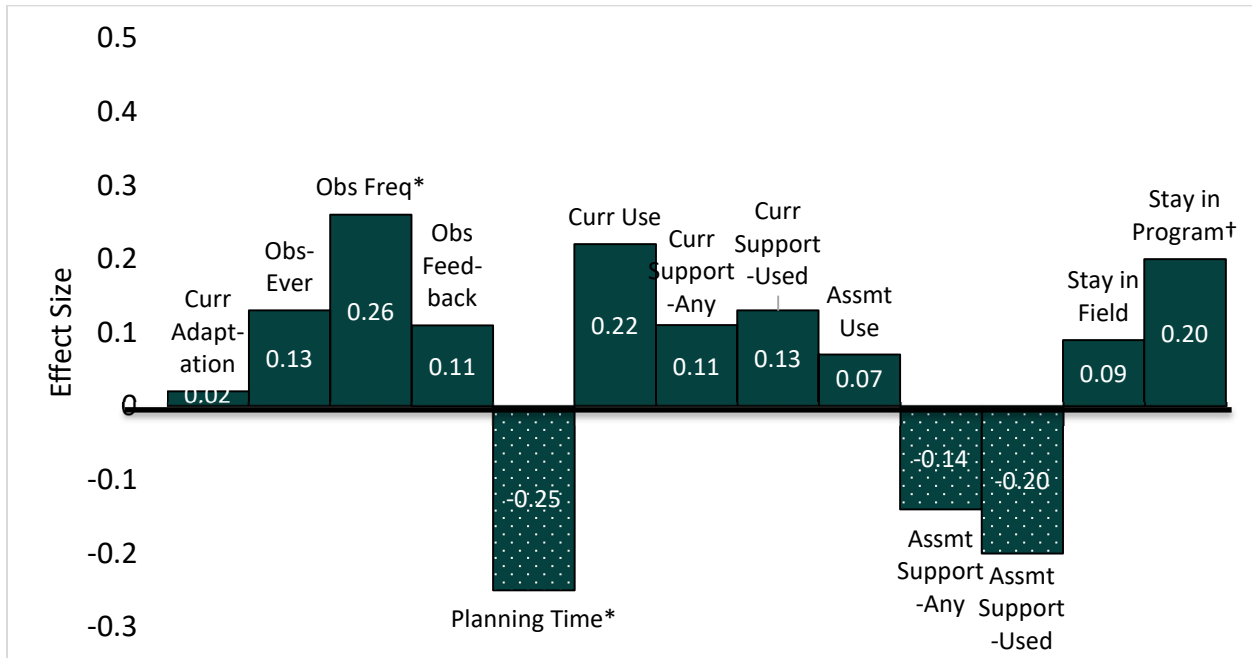
<b>What is the impact of one year of ECSO initiative participation on educator support for instructional practices compared to educators in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>• Receipt of support for curriculum adaptation (educator-reported)</li> <li>• Being observed by a leader (educator-reported)</li> <li>• Frequency of observation by a leader (educator-reported)</li> <li>• Receipt of feedback from observations (educator-reported)</li> </ul>
<b>What is the impact of one year of ECSO initiative participation on educator planning time compared to educators in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>• Receipt of planning time during regular work day</li> </ul>
<b>What is the impact of one year of ECSO initiative participation on educator use of curriculum and child assessment tools compared to educators in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>• Use of a curriculum (educator-reported)</li> <li>• Receiving support on curriculum (educator-reported)</li> <li>• Receiving support on a curriculum they use (educator-reported)</li> <li>• Use of an assessment/screener tool (educator-reported)</li> <li>• Receiving support on assessment/screener tool (educator-reported)</li> <li>• Receiving support on assessment/screener tool they use (educator-reported)</li> </ul>
<b>What is the impact of one year of ECSO initiative participation on educator retention compared to educators in similar non-supported programs?</b>
<ul style="list-style-type: none"> <li>• Intent to stay in program (educator-reported)</li> <li>• Intent to stay in field (educator-reported)</li> </ul>
<b>WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving educator knowledge, attitudes, practices, and child skills?</b>
<ul style="list-style-type: none"> <li>• This will come from the spring-only question set towards the end of the educator survey about how much certain things have changed, asked only of treatment group.</li> </ul>

One year of the ECSO initiative had a positive impact on educators’ likelihood of being observed (statistically significant), curriculum use and receipt of curriculum support, and intentions to stay in their program. We saw fairly large negative impacts on educator receipt of planning time (statistically significant) and support for assessment use. Exhibit 14 below displays standardized effect sizes for all examined educator outcomes.

*“The most helpful support [ECSO involvement] has been comprehensive professional development, structured evidence-based curriculum regular peer learning communities, and a focus on reflective teaching practices. These have enhanced my confidence, competence, and ability to meet each child’s needs effectively.” – ECSO EEP Educator*

*“Being part of the ECSO initiative allows the educators to be on the same page and share similar beliefs in our approaches etc.” – ECSO EEP Educator*

Exhibit 14. Effect Sizes for Impacts on Educator Outcomes



\*  $p \leq .05$ ; †  $p \leq .10$

**RQ3. What is the impact of one year of ECSO initiative participation on educator support for instructional practices compared to educators in similar non-supported programs?**

The ECSO initiative had a positive impact on how supported educators are around their instructional practices. Educators said they were observed more and *significantly* more often (on a scale of 1-5 with 1 meaning ‘never’ and 5 meaning ‘every day’) by leadership and were provided with observation visit feedback from their program leaders more than educators in the comparison group; however, there was no substantial impact on educator receipt of support for curriculum adaption. Exhibit 15 shows the findings across the four constructs examined as part of this research question. We saw this same pattern for Cohort 3 after two years of supports though effects were larger across constructs.

*“I think being part of creating the supports for our center has helped me become a better educator and I feel appreciated by the other members of our staff when I provide assistance that they ask for.”*  
 – ECSO EEP Educator

*“Now my teaching team meets twice a month to plan and discuss classroom concerns. This has been great for our curriculum planning, our team building, and our interactions with students..”*  
 – ECSO EEP Educator

**Exhibit 15. Impacts on Educator Support for Continuous Quality Improvement**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Support for curriculum adaptation (yes/no)	65%	64%	0.01	0.06	0.02	0.86
Observation by program leader (yes/no)	85%	80%	0.05	0.06	0.13	0.37
Frequency of observation by program leader	2.83	2.34	0.49	0.25	0.26	0.05
Provision of feedback by program leader (yes/no)	91%	88%	0.03	0.05	0.11	0.46
<b>Sample Size</b>	167-175	99-104				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

**RQ4. What is the impact of one year of ECSO initiative participation on educator planning time compared to educators in similar non-supported programs?**

Though a specific facet of the ECSO initiative is to encourage leaders to provide their educators with dedicated time for planning during their regular work day, educators in the treatment group were significantly less likely after one year of ECSO participation to have such a resource than educators in the comparison group (see Exhibit 16). After two years of ECSO supports, Cohort 3 educators also received less planning time than comparison educators, though the effect size was close to zero.

**Exhibit 16. Impacts on Educator Planning Time**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Received planning time	71%	82%	-0.11	0.05	-0.25	0.03
<b>Sample Size</b>	165	100				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

**RQ5. What is the impact of one year of ECSO initiative participation on educator use of curriculum and child assessment tools compared to educators in similar non-supported programs?**

One year of ECSO participation had a positive impact on educators' use of and support for the use of curriculum (not significantly so), though had a negative impact on their support for the use of child assessments/screeners (see Exhibit 17). Notably, the receipt of support on the curriculum used is more general than the question addressed in Research Question 3 about support on the *adaptation and implementation* of a curriculum. We saw the same pattern of impacts for Cohort 3 after two years of the intervention, though effects tended to be larger.

*"I am more socially and emotionally aware of my students needs and am able to cater to their needs even better now!"*  
 – ECSO EEP Educator

**Exhibit 17. Impacts on Educator Curriculum and Assessment Use**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Used any curriculum	95%	89%	0.06	0.03	0.22	0.11
Received support on any curriculum	81%	76%	0.05	0.06	0.11	0.43
Received support on curriculum used	70%	64%	0.06	0.06	0.13	0.31
Used any assessment/screener	90%	88%	0.02	0.04	0.07	0.56
Received support on any assessment/screener	74%	80%	-0.06	0.06	-0.14	0.33
Received support on assessment/screener used	61%	71%	-0.1	0.07	-0.20	0.14
Sample Size	164-166	99				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

**RQ6. What is the impact of one year of ECSO initiative participation on educator retention compared to educators in similar non-supported programs?**

Educators who had been a part of the ECSO initiative for a year were significantly more likely to want to remain at their EEP than educators in the comparison sample (Exhibit 18).

**Exhibit 18. Impacts on Educator Plans to Stay**

Outcome	Treatment Group Mean <sup>1</sup>	Comparison Group Mean <sup>1</sup>	Impact Estimate <sup>2</sup>	Standard Error <sup>3</sup>	Effect Size <sup>4</sup>	p-Value <sup>5</sup>
Intent to stay in ECE field	69%	65%	0.04	0.05	0.09	0.46
Intent to stay in ECE program	67%	57%	0.10	0.06	0.20	0.10
Sample Size	156-161	93-95				

<sup>1</sup> Covariate-adjusted group averages

<sup>2</sup> Estimated value of the treatment impact from the regression model (difference between the adjusted treatment mean and the adjusted comparison mean)

<sup>3</sup> Standard error of the impact estimate

<sup>4</sup> Cohen's d standardized effect size (impact estimate in standard deviation units)

<sup>5</sup> Statistical significance of the impact estimate

There was no substantial impact on their intentions to stay in the ECE field more generally. The impact on Cohort 3 educator intentions to stay after two years of supports was smaller.

We did not examine the impact of the initiative on classroom quality in this report because we did not conduct observations in Cohort 4 classrooms after their first year of the initiative and so cannot yet analyze this outcome for the full QED sample. However, we did look at the impact on *program level* classroom/instructional quality in Cohort 3 programs *after two years* of supports. On the Classroom Assessment Scoring System (CLASS™) measures (CLASS is a registered trademark of [Teachstone, Inc.](https://www.teachstone.com)), we saw a very large positive impact on EEP infant classroom quality but smaller *negative* impacts on EEP toddler and pre-k classroom quality. On more nuanced behaviors in pre-k classrooms (from the Child Observation in Preschool<sup>15</sup>/Teacher

<sup>15</sup> Farran, D. C., Plummer, C., Kang, S., Bilbrey, C., & Shufelt, S. (2006). *Child Observation in Preschool*. Peabody Research Institute, Vanderbilt University.

Observation in Preschool<sup>16</sup>), we saw large positive impacts on EEP-level teacher tone and child cooperation. At the conclusion of the QED, we will examine initiative impacts on the quality of instruction and interactions in the classroom with the full sample.

**RQ8. WITHIN THE TREATMENT GROUP ONLY, to what extent has participation in the ECSO initiative been successful at improving educator knowledge, attitudes, practices, and child skills?**

As we did with leaders, we asked *treatment group* educators in spring (end of their 1<sup>st</sup> year of participation) only about whether certain practices had changed as a result of ECSO, and how much change they experienced on a scale from 1 to 4 (Exhibit 19). The majority of educators (82%) experienced change on at least one outcome *because* of the ECSO initiative. On average, educators attributed change to the ECSOs for nine outcomes, and one-third of educators indicated that they both experienced change and attributed that change to the ECSOs for all fourteen outcomes.

“I’ve been able to talk more openly about the curriculum or any challenges.”  
– ECSO EEP Educator

“Since ECSO has taken effect, I’ve seen staff communicate more and collaborate with staff they don’t particularly speak to.”  
– ECSO EEP Educator

“The structured support and resources provided by ECSO have enabled us to enhance our programs, empower our educators, and create a more enriching and supportive environment for the children we serve. ECSO also ensures that we are better equipped to foster the growth and development of every child in our care.”  
–ECSO EEP Educator

**Exhibit 19. Changes Attributed to ECSO by Treatment Group Educators**

Outcome	# Attributing Change to ECSO	% Attributing Change to ECSO	How Much Change (if attributed change to ECSO)
I improved my knowledge of early childhood development and how to best support children’s learning	150	69%	3.61
The children I teach have improved their cognitive development/thinking skills	146	67%	3.60
I improved my use of effective teaching/care practices	145	67%	3.57
The children I teach have improved their language skills	145	67%	3.61
The children I teach have improved their social-emotional skills	142	65%	3.58
I now have higher-quality interactions with children	141	65%	3.62
I collaborate more with my peers/other educators at my program.	139	64%	3.48
I have a better sense of self-efficacy (in other words, I now have more confidence in my ability to be a good teacher)	139	64%	3.54
I improved the integration of curriculum in my instruction	138	63%	3.51
I make better use of assessment/screening data to inform planning and practice	137	63%	3.50
I have a better understanding of and commitment to continuous quality improvement	133	61%	3.47
I am more likely to want to keep teaching at this program	127	58%	3.65
I feel more supported by my leader/program director.	122	56%	3.55
The climate of this program has improved	120	55%	3.54
<b>Sample Size</b>	218		

<sup>16</sup> Billbre, C., Vorhaus, E., Farran, D., & Shufelt, S. (2007). *Teacher Observation in Preschool*. Peabody Research Institute, Vanderbilt University.



### ***Moderators of Impact***

It is reasonable to hypothesize, based on prior findings as part of this evaluation effort, that the initiative impacts might be different for different types of programs and/or for different types of participants. To that end, we investigated the following variables as potential moderators of program impact:

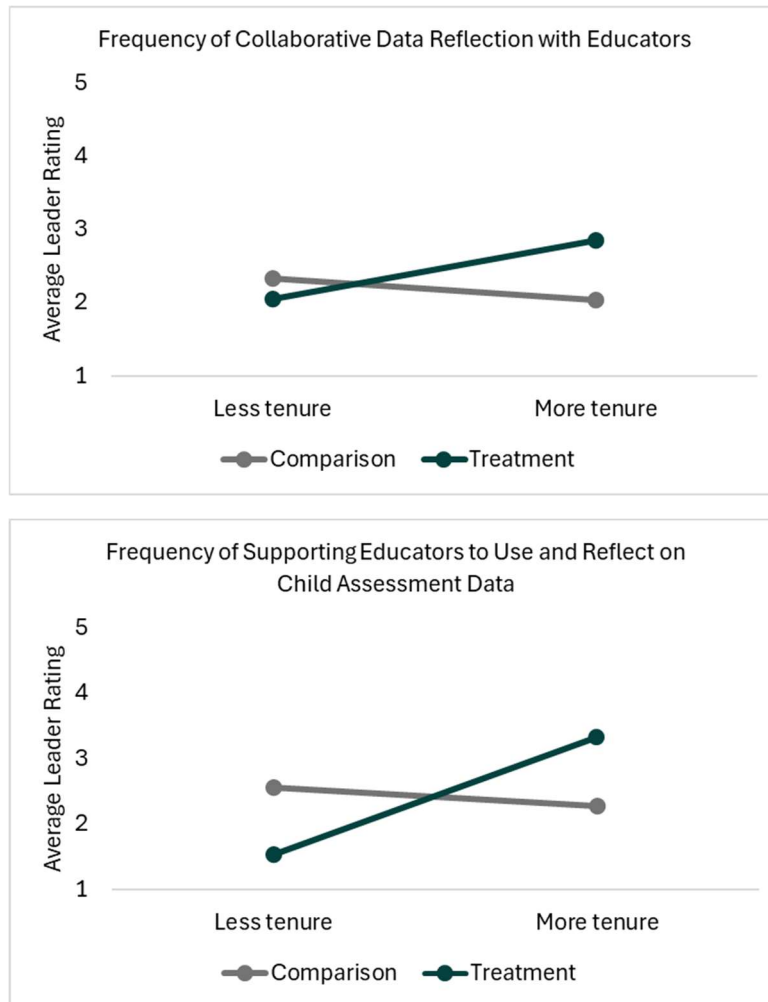
- Program Characteristics
  - EEP Capacity
  - EEP SVI
  - EEP Subsidy Rate
- Participant Characteristics
  - Leader years of tenure at current program (for leader outcomes)
  - Educator years of experience overall (for educator outcomes)

Each potential moderator was analyzed as an interaction with treatment (along with main effects of treatment and of the moderator) in separate regression models with each outcome of interest in Research Questions 1-2 and 3-6.

#### ***RQ9. To what extent does the impact of the ECSO initiative vary by key program and participant characteristics?***

We did not see evidence of *patterns* of differential impact by key program characteristics *or* educator experience; this suggests that the impact of the ECSO intervention was largely similar across programs of different sizes and subsidy arrangements and across novice and experienced educators. However, impacts on leaders did tend to differ depending on leader tenure. We ran 48 moderator analyses for leader outcomes and 52 moderator analyses for educator outcomes. For almost all of the leader outcomes we analyzed, the positive impact of the ECSO intervention was larger among leaders with more years of tenure at their current program. For some outcomes like the first graph in Exhibit 20, the impact among leaders with fewer years of tenure at their program was virtually zero while the impact among leaders with more tenure was substantial and positive; for other outcomes like the second graph in Exhibit 20, the impact among leaders with less tenure was *negative* while the impact among leaders with more tenure was positive.

**Exhibit 20. The Impact on Two Illustrative Leader Outcomes Moderated by Leader Tenure at Program<sup>1</sup>**



<sup>1</sup> In these figures, a leader with a low number of years of experience in the current program is new to the program (i.e., 0 years of experience at current program; -1 SD from the mean), whereas a leader with a high number of years of experience in the current program has 15 years of experience at that program (+1 SD from the mean).

<sup>2</sup> Covariate-adjusted group averages

### Subgroup Analysis

Though the power of the QED relies on the analysis of the full sample, we took an exploratory look at how initiative impacts and single-year gains in the treatment group differed by ECSO and cohort.

#### Impacts on posttest scores depending on cohort

The impact of the initiative on leader outcomes tended to be larger in Cohort 4 than in Cohort 3. For example, growth in leader’s overall confidence was close to zero in the Cohort 3 treatment group but was substantial for the Cohort 3 comparison group; in contrast, there was decent positive growth in leader confidence in Cohort 4 treatment leaders, though there was also growth in Cohort 4 comparison programs.

Differential gains by cohort were mixed for educator outcomes. Many outcomes saw similar growth for both cohorts, both in terms of gain and of improvement relative to the comparison growth. Some outcomes tended to favor Cohort 3 over Cohort 4, like assessment use; in other areas like intention to stay in their program, we saw larger improvement in Cohort 4 than in Cohort 3.

### **Single-year gains depending on ECSO**

The relationship between change over the year in key outcomes and ECSO model was inconsistent. We saw differences in gains by ECSO, but no single ECSO emerged as consistently being associated with larger or smaller improvements in either leader or educator outcomes.

We also looked at gains in Cohort 2 participants after 3 years of supports compared to gains in Cohort 3 participants after 2 years of support. Though there were differences in the two groups at baseline, we did tend to see larger gains for Cohort 3 than for Cohort 2 for outcomes like leader confidence, educator use of curriculum and child assessment tools, and educator retention. For other outcomes like positive leader practices, educator support for instructional practices, and educator planning time, we saw larger gains in Cohort 2 than Cohort 3. It is worth noting that patterns can be very different by ECSO. For example, CLI tended to see bigger gains for Cohort 2 than Cohort 3, and UMB tended to see bigger gains for Cohort 3 than Cohort 2.

Appendix C includes tables of descriptives for each outcome of interest disaggregated by ECSO and cohort.

### **Baseline Equivalence**

We matched our treatment and comparison EEPs based on EEP-level characteristics and not individual characteristics. While leaders and educators were indeed similar on many of the key variables of interest, there were several outcomes for which the difference in leaders and educators at baseline was larger than optimal, particularly for measures of positive leader practice. While we did not see a large difference *overall* (i.e. the PILS measure), we did see differences for some of the specific positive practices we examined, like supporting educators to use child assessment data (for which we saw no real overall initiative impact) and supporting educators to implement a curriculum (for which we saw an overall positive initiative impact). Educators tended to be more similar between groups at baseline; larger baseline differences for educators were related to receiving support for curriculum adaptation and receiving support on child assessment/screeners, mostly in-line with the larger baseline *leader* differences. While we controlled for preexisting differences in our outcome models by including baseline measures and key demographics, some of these differences make us less confident that impacts we see are solely due to the intervention and not to any differences prior to participation in ECSO. A complete table of baseline differences is provided in Appendix A.

## 5. Implementation Findings

Coinciding with the investigation of program impacts is an evaluative look at model implementation by ECSOs during the years in which the impact evaluation is taking place.

### RQ10. To what degree did ECSOs implement their model with intended fidelity?

For several years, Abt has supported ECSOs in assessing the degree to which they put the key/support components of their model into place as intended. Each ECSO independently identified the key components of their model and, at the end of the year, used their own collected data to reflect on implementation fidelity. Though no ECSO delivered all of their key components with expected fidelity (see Exhibit 21), each ECSO was able to implement the majority of their key components with each cohort as expected. Implementation fidelity was lower, generally, in Cohort 4 than Cohort 3. Each ECSO’s full fidelity matrix from the 2023-24 year is included in Appendix B.

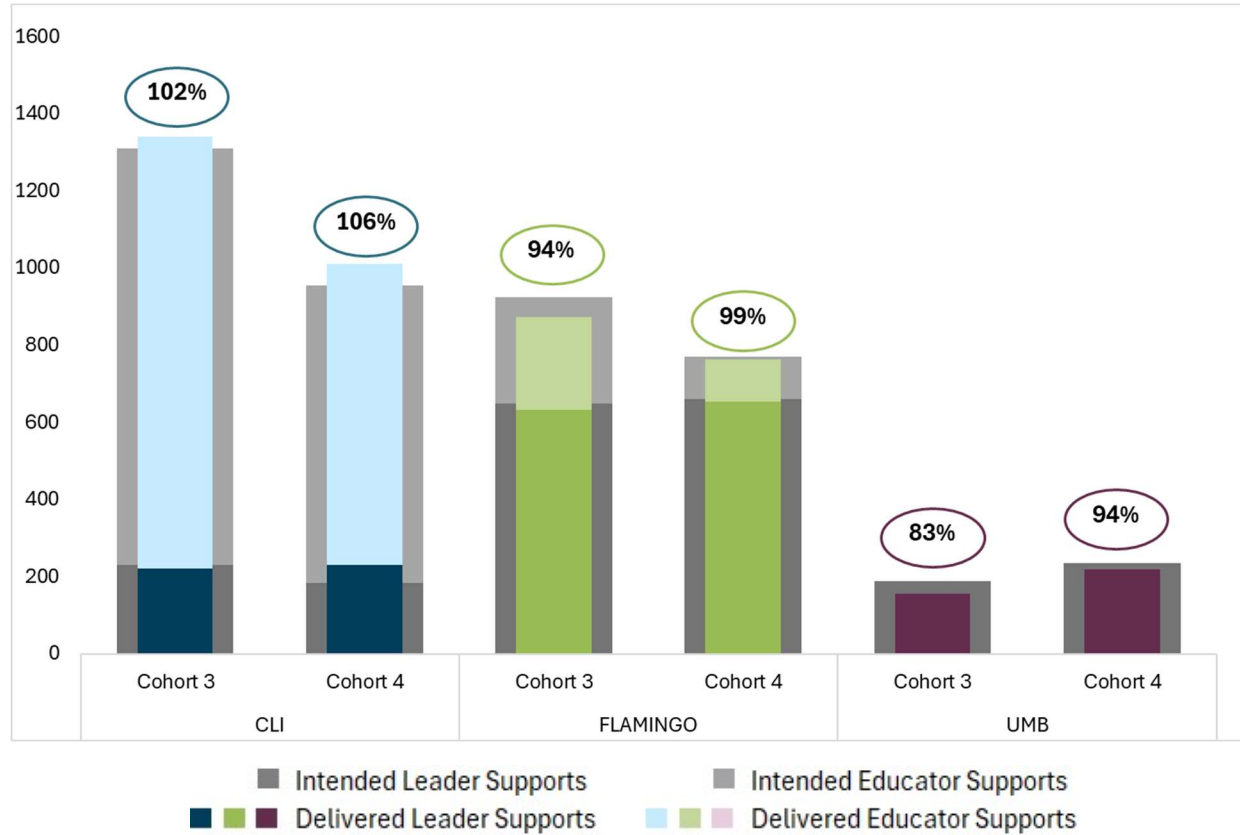
**Exhibit 21. Implementation Fidelity by ECSO, Cohort, and Key Component**

Key Component	Implemented with Fidelity in Cohort 3's 1st Year	Implemented with Fidelity in Cohort 4's 1st Year
<b>CLI</b>		
Core Service Model Components ( <i>intake meetings, learning walks, strategic planning meetings, data analysis/stepback meetings</i> )	N/A	Yes
Leader Coaching	No	Yes
Leader Professional Learning Communities and Critical Friends	No	No
Teacher Coaching	Yes	Yes
Teacher Training	Yes	No
Financial Incentives/Materials ( <i>training stipends + literacy materials + curricular materials</i> )	Yes	Yes
Leader Coaching Logs	N/A	No
<b>Flamingo</b>		
Community of Practice Sessions ( <i>frequency and fidelity</i> )	No	No
One-to-one Leader coaching	Yes	Yes
Leader development course ( <i>access and mastery</i> )	Yes	Yes
System of data collection and analysis ( <i>sharing and discussing classroom observations</i> )	Yes	Yes
ECSO connection between programs and BPS-provided teacher training	Yes	N/A
Educator coursework	Yes	Yes
<b>UMB</b>		
Essentials 0-5 Survey Use Training ( <i>introduction, orientation, webinar, and work sessions</i> )	Yes	Yes
Survey Administration ( <i>educator and parent survey participation</i> )	Yes	No
Training ( <i>ELM Training modules</i> )	N/A	Yes
Coaching (Technical Assistance)	Yes	No
Peer Learning Communities	Yes	Yes
Transfer to Practice ( <i>ELM Implementation</i> )	N/A	No

As has been true in previous years of the initiative, all three ECSOs came very close to or even exceeded their goals in terms of the *amount of support* they intended to provide leaders and educators. Exhibit 22 shows the number of leader and educator supports delivered and intended/planned in the 2022-23 school year for Cohort 3 and in the 2023-24 school year for Cohort 4. Overall, an average of 98% of intended leader and educator supports was delivered to Cohort 3 EEPs and 102% of intended supports was delivered to Cohort 4 EEPs in their first year of participation in the initiative; that percentage ranged from 83 to 102% depending on ECSO for Cohort 3 (102% for CLI, 94% for Flamingo, and 83% for UMB) and from 94 to 106% for Cohort 4 (106% for CLI, 99% for Flamingo, and 94% for UMB). Of note along with the

percentages is the variation in total hours of support provided by ECSO, reflecting model differences described earlier in this report.

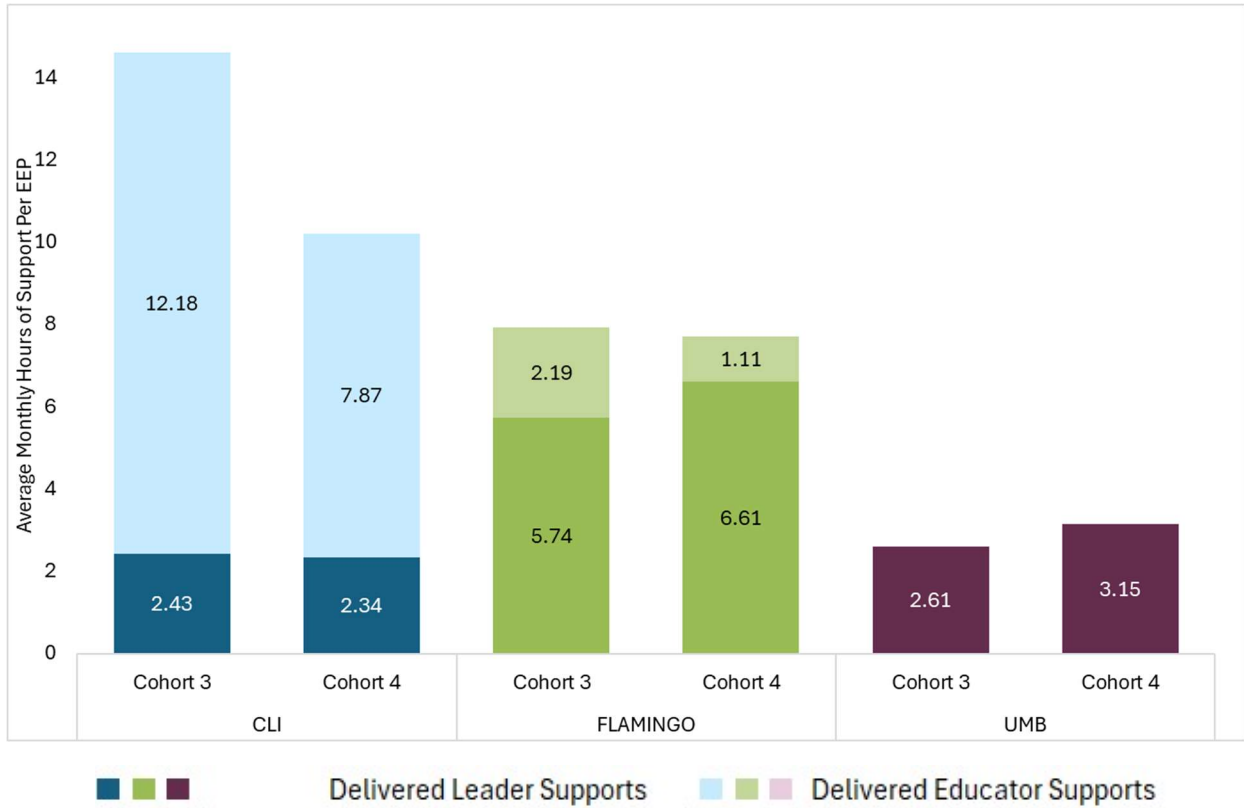
**Exhibit 22. Hours of Support Intended and Delivered to Participants in their First Year of Participation by ECSO and Cohort**



Along with overall dosage, we considered the average amount of supports each EEP received. On average, EEPs in CLI received ~12 hours of support per month; EEPs in Flamingo received ~7 hours of support per month; and EEPs in UMB received ~3 hours of support per month. Exhibit 23 shows the average number of leader and educator supports delivered to a single EEP in a single month. Appendix D includes a table of total leader hours, leader coaching hours, total educator hours, and educator coaching hours provided to each EEP in their first year of participation.

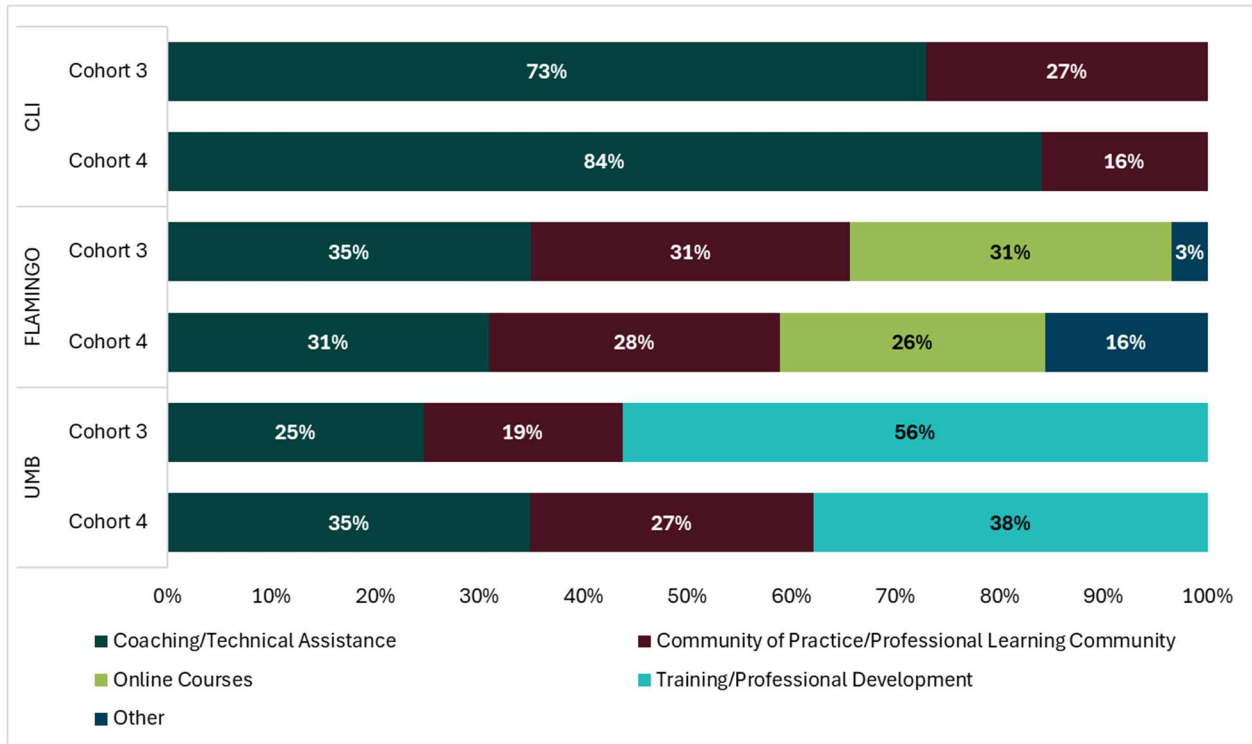


**Exhibit 23. Average Monthly Hours of Support Delivered to an Individual EEP in Its First Year of Participation by ECSO and Cohort**



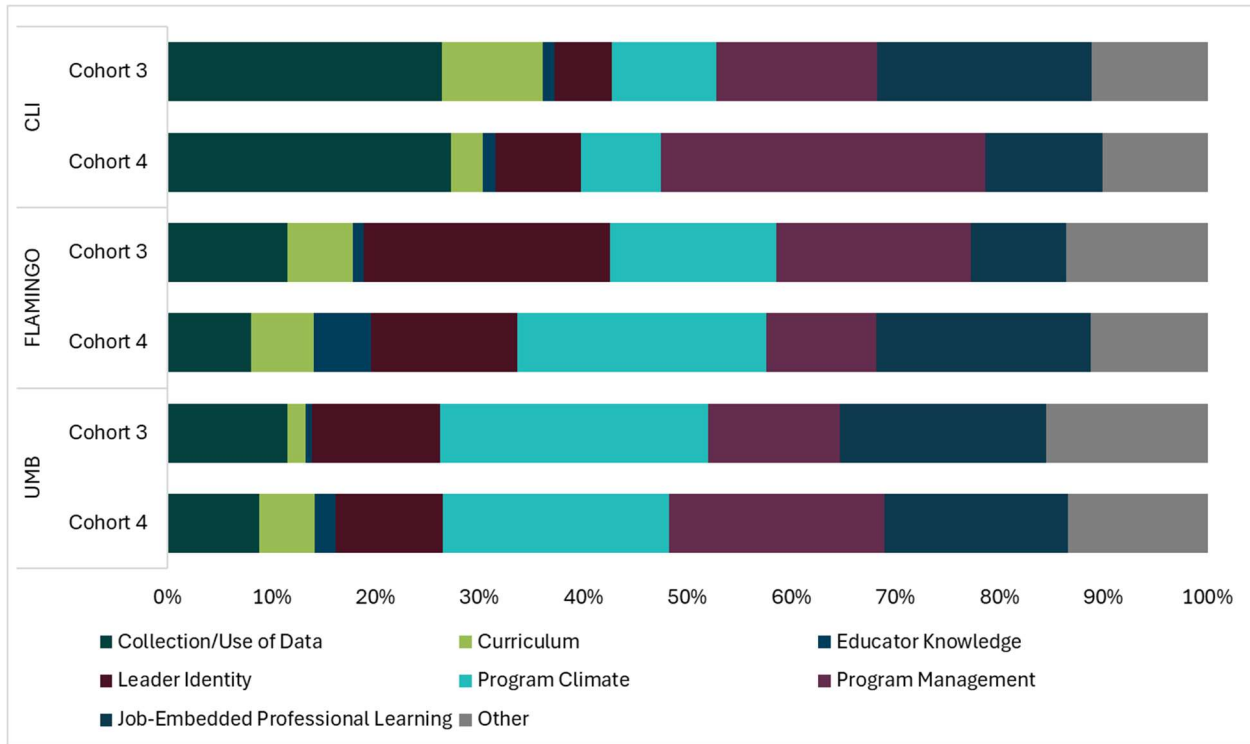
All three ECSOs delivered leader supports via coaching/technical assistance and/or communities of practice/professional learning communities (Exhibit 24), though UMB also heavily utilized training/professional development/workshops while Flamingo supplemented with online coursework and ‘other’ onboarding activities.

**Exhibit 24. Format of Leader Supports by ECSO and Cohort**



All three ECSOs focused their leader supports around a variety of topics important to the initiative (Exhibit 25) and focused on similar topics with each of the two cohorts in their first year of participation. Notably, CLI focused more on the collection/use of data and less on leader identity and program climate than Flamingo or UMB.

**Exhibit 25. Topics of Leader Supports by ECSO and Cohort**



**RQ11. To what degree are program variations in supports dosage (overall support hours, coaching hours) associated with variations in program-level gains?**

Similar to the analyses of potential moderators of impact (Research Question 9), it is reasonable to hypothesize that gains made during the impact year might be larger for programs that received more ECSO support and, specifically, more direct leader coaching<sup>17</sup>. We investigated total hours of leader support and total hours of leader coaching as predictors of gains within the treatment group for each leader and educator outcome in Research Questions 1-2 and 3-6 in separate regression models.

There were some suggestions of positive relationships between dosage and gains. Leaders who received more support overall and/or more coaching specifically had bigger improvement in how frequently they provided curriculum implementation support to their staff (significantly so, for coaching hours) and how frequently they planned with and engaged in collaborative data reflection with educators.

However, there were more suggestions of negative relationships between dosage and gains. Leaders who received more support overall and/or more coaching had decreases in the frequency with which they observed educators. Further, educators in programs with leaders who received

<sup>17</sup> We did not look at overall educator support hours or educator coaching hours as predictors of gain because they are essentially colinear with ECSO (CLI was the only ECSO to provide substantial and varying hours of educator coaching) and very dependent on the number of educators in each EEP.



more hours of overall support were less likely to report using a curriculum and receiving support on a curriculum and/or a child assessment/screener. These negative relationships might be due to program leaders relying on their ECSO staff to conduct classroom observations rather than themselves but might also be an artifact of time allocation; leaders who spend more time engaged in ECSO supports might have less time to engage with and support staff on some of these key initiative aspects. Notably, we did not see the suggestion of a threshold of minimal hours leading to positive outcomes, nor did we see what looked like a limit where too many hours of supports begin to lead to negative outcomes.

## 6. Implications and Next Steps

### *Implications for the Initiative*

The interim findings presented in this report have implications for the future of the ECSO initiative in Massachusetts. The initiative *does appear to be working* to improve outcomes for leaders and educators. Leaders in ECSO-supported programs have higher confidence in how they support educators and engage in positive leader practices more frequently after one year of participation than leaders in comparison programs. Educators in ECSO-supported EEPs are observed more and more frequently by leaders, facilitating leader support of positive data-driven changes in instructional practices. Importantly, the ECSO initiative has evolved over the years of its life, and we see larger gains in important outcomes with each subsequent cohort of EEPs. Drawing on information collected from Abt’s evaluation as well as EEC’s and New Profit’s learnings from direct and frequent communication with ECSOs, the scope and intensity of the program has developed in response to real-life implementation. The result appears to be a program that is increasingly more effective at impacting desired outcomes. The ECSO initiative is operationalized as a cascade of improvements beginning with leaders; as leaders make positive shifts in both mindset and practice, educators improve both knowledge and practice as well which can, in turn, facilitate program climate and educator satisfaction improvement and ultimately more positive classroom practices and experiences for children. Interim impact results suggest that this cascade is playing out in supported EEPs across the Commonwealth.

More support might be dedicated to the provision of planning time for educators and the use of assessment/screening data incorporated into individualized instruction given the negative impact on both outcomes. Further, because data suggest that leaders who received more support were challenged to juggle their professional development with the provision of support to educators, ECSOs might consider ways to support leader time/responsibility management along with other key facets of the initiative. Similarly, given that educators were less likely to receive planning time at the end of the first year than comparison educators, engagement in ECSO activities may have also hindered educators’ abilities to dedicate planning time during the work day. Some of the leader supports might be adapted to focus on time management, staffing, use of shared services networks, and other ways that could free up time to accomplish both their professional development and supporting educators in the critical areas of curriculum and assessment implementation.

We learned qualitatively that a particularly challenging aspect for some programs has been when there are shifts in leadership within a program. One educator noted that, “Most challenging is having new upper management that is unaware of what our program is about and how and why we do things the way we do.” Relatedly, we found suggestions that leaders with more tenure at their program were able to make bigger improvements in positive outcomes than leaders with less tenure, relative to comparison leaders. ECSOs might consider strategies for onboarding new leader and educator staff to encourage uptake of key initiative strategies and approaches as well as supporting newer leadership to allocate time to fully participate in the initiative’s features. Additionally, as EEPs transition out of the program, ECSOs might want to focus on program maintenance – ensuring that leaders know what they need to do to support educators through observation, curriculum support, and other activities while the initiative is still ongoing so that they can sustain those positive practices after supports end.



### ***Implications for State Policy***

These interim findings support an approach to providing increased resources to early childhood program leaders as a means of facilitating comprehensive program development and improvement. The ECSO initiative, which has evolved in intensity, frequency, and targets of supports and resources based on qualitative and quantitative learnings across several years and with a large number of licensed providers, sheds light on important agents of change for EEC's consideration in planning how to best support program improvement. As EEC continues to support and introduce new initiatives to improve the quality of early childhood programming for children and families in the Commonwealth, there may be ways in which EEC could provide nonregulatory guidance to early childhood programs to sustain improvements and address areas where interim findings suggest programs might need more support. For example, the evaluation found that educators are not consistently receiving dedicated planning time during the work day. Optimally, this is paid planning time that is built into the program day when they do not need to supervise children or take care of other responsibilities in tandem. EEC might create/refine nonregulatory guidance for best practices in providing time and support for individual and collaborative planning during a program day, including ways to provide coverage and compensation for the time.

The Commonwealth Cares for Children (C3) grant is an important source of data for EEC. The C3 application asks programs to check off a variety of benefits offered to staff, such as paid time off. If not already addressed, the C3 application could be amended to add "paid staff planning/collaboration time" which would produce two benefits: (1) greater awareness that funds can be used for paying staff for the time spent on planning and collaboration and (2) important data for the state on how this important staff provision is utilized.

### ***Implications for the Larger Community***

The interim findings presented in this report offer insight into how long an initiative might need to be in place and implemented before having measurable, meaningful positive impacts on classrooms and children. The findings also speak to the critical role that ECE leader supports can play in the progression of positive program changes. Importantly, just as the initiative centers around the facilitation of data-driven continuous quality improvement in participating programs, the initiative itself has continuously evolved in response to ongoing learnings; this is a strong feature of the implementation of the ECSO model that can inform how similar initiatives in other localities might develop and grow.

The next year of the evaluation (2024-25), which will conclude data collection for the fully-powered two-year two-cohort QED, will further illuminate the full strength of the ECSO initiative for EEPs across Massachusetts. Studying the impact of two consecutive years of intensive leader and educator supports in over 100 licensed child care centers in Massachusetts will allow for the more sophisticated matching of leaders and educators at baseline and, importantly, the investigation of initiative impacts on classroom practices. The theory of change and the scope of delivered supports focuses first on leaders, then on educators, and on to classrooms; we anticipate that we will see two-year impacts support this cascade.



## 7. APPENDICES

## Appendix A. Sample Details

*Distribution of Treatment and Comparison Programs across Matching Variables*

**Exhibit A-1. Matching Treatment and Comparison EEPs on Program-Level Characteristics**

	ECOSO Treatment EEPs	Comparison EEPs
Number	51	53
Capacity (Categorized)		
Small (<40)	11	11
Medium (40-79)	11	25
Large (80-120)	16	9
Extra Large (>120)	13	8
Region x SVI		
Central; high	4	8
Central; medium high	2	6
Metro Boston; high	11	5
Metro Boston; medium high	3	8
Northeast; high	7	6
Northeast; medium high	1	4
Southeast and Cape; high	7	2
Southeast and Cape; low	1	0
Southeast and Cape; medium high	1	4
Southeast and Cape; medium low	1	0
Western; high	10	6
Western; medium high	2	4
Western; medium low	1	0



## APPENDIX A. SAMPLE DETAILS

### Leader and Educator Survey Samples: Size and Demographics

**Exhibit A-2. ECSO EEP Instructional Leader Demographic and Professional Characteristics (N = 60)<sup>18</sup>**

	ECSO Overall	Comparison Overall	CLI		Lastinger		UMB		ECSO Overall		Comparison	
			C3	C4	C3	C4	C3	C4	C3	C4	C3	C4
<b>Sample Size</b>	<b>31</b>	<b>29</b>	<b>3</b>	<b>2</b>	<b>8</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>14</b>	<b>17</b>	<b>13</b>	<b>16</b>
Mean Age (years)	47.86	48.11	56.00	40.00	57.50	53.17	55.50	37.50	56.29	43.93	48.00	48.20
Female	87%	100%	100%	50%	88%	86%	67%	100%	86%	88%	100%	100%
Race/Ethnicity <sup>19</sup>												
Hispanic/Latinx	21%	18%	0%	0%	0%	43%	0%	38%	0%	38%	17%	19%
White Non-Hispanic	68%	79%	100%	100%	86%	43%	100%	50%	92%	50%	75%	81%
Black Non-Hispanic	4%	4%	0%	0%	14%	0%	0%	0%	8%	0%	8%	0%
Asian Non-Hispanic	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Multiracial Non-Hispanic	7%	0%	0%	0%	0%	14%	0%	12%	0%	12%	0%	0%
Other Non-Hispanic	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Language(s) spoken <sup>20</sup>												
English	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Spanish	10%	7%	0%	0%	0%	14%	0%	25%	0%	18%	0%	12%
Other languages	0%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12%
Highest level of education completed												
High School diploma or GED	10%	7%	0%	50%	25%	0%	0%	0%	14%	6%	0%	12%
Associate's degree/technical/vocational degree	10%	14%	0%	0%	0%	43%	0%	0%	0%	18%	15%	12%
Bachelor's degree	61%	41%	0%	50%	75%	29%	67%	100%	57%	65%	46%	38%
Master's degree	13%	38%	67%	0%	0%	29%	0%	0%	14%	12%	38%	38%
Doctoral degree	6%	0%	33%	0%	0%	0%	33%	0%	14%	0%	0%	0%
Major <sup>3</sup>												
Any education-related major	84%	83%	67%	100%	88%	86%	100%	75%	86%	82%	85%	81%
Early childhood education	65%	62%	33%	50%	50%	71%	100%	75%	57%	71%	62%	62%
Elementary education	6%	0%	33%	0%	12%	0%	0%	0%	14%	0%	0%	0%
Special education	6%	3%	0%	0%	0%	14%	33%	0%	7%	6%	0%	6%
Child development	13%	7%	0%	0%	25%	14%	0%	12%	14%	12%	8%	6%
Curriculum and instruction	0%	3%	0%	0%	0%	0%	0%	0%	100%	100%	0%	6%
Other education-related major (e.g., educ. psychology)	6%	10%	0%	50%	0%	14%	0%	0%	0%	12%	23%	0%
Professional certifications <sup>3</sup>												

<sup>18</sup> Summary statistics of instructional leader characteristics include any instructional leaders who responded in both the fall and spring of their first year of participation.

<sup>19</sup> Race/ethnicity was recoded from two questions in the Educator Survey: (1) Which of the following best describes your race? (2) Are you of Hispanic, Latino, or Spanish origin or descent? All race/ethnicity categories are mutually exclusive.

<sup>20</sup> Respondents could select more than one option. Percentages within each column will not add up to 100%.



## APPENDIX A. SAMPLE DETAILS

Child Development Associate (CDA)	10%	10%	0%	0%	0%	14%	0%	25%	0%	18%	8%	12%
EEC professional certification	94%	97%	100%	50%	100%	86%	100%	100%	100%	88%	100%	94%
Infant-toddler Teacher	45%	54%	67%	0%	25%	67%	67%	38%	43%	47%	54%	53%
Infant-toddler Lead Teacher	48%	50%	67%	0%	50%	83%	0%	38%	43%	53%	38%	60%
Preschool Teacher	48%	50%	100%	0%	38%	67%	33%	38%	50%	47%	46%	53%
Preschool Lead Teacher	76%	89%	100%	0%	75%	100%	67%	62%	79%	73%	85%	93%
Director I	59%	75%	100%	0%	38%	83%	33%	62%	50%	67%	62%	87%
Director II	90%	79%	100%	100%	88%	83%	100%	88%	93%	87%	92%	67%
Prek-2 teaching license	6%	3%	33%	0%	0%	0%	33%	0%	14%	0%	8%	0%
Post Master's certificate	6%	7%	0%	0%	0%	14%	0%	12%	0%	12%	0%	12%
Other	13%	7%	0%	50%	25%	0%	33%	0%	21%	6%	8%	6%
Number of years of experience in this program	5.48	8.32	11.33	4.50	8.75	4.00	3.00	2.50	8.07	3.35	7.58	8.88

**Exhibit A-3. ECSO EEP Educator Demographic and Professional Characteristics (N = 288)<sup>21</sup>**

	ECSO Overall	Comparison Overall	CLI		Lastinger		UMB		ECSO Overall		Comparison	
			C3	C4	C3	C4	C3	C4	C3	C4	C3	C4
<b>Sample Size</b>	<b>182</b>	<b>106</b>	<b>33</b>	<b>21</b>	<b>36</b>	<b>22</b>	<b>33</b>	<b>37</b>	<b>102</b>	<b>80</b>	<b>66</b>	<b>40</b>
Mean Age (years)	40.12	42.02	40.94	35.80	44.97	40.86	42.03	35.05	42.70	36.81	40.73	44.08
Female	96%	98%	97%	100%	94%	91%	94%	100%	95%	98%	98%	98%
Race/Ethnicity <sup>22</sup>												
Hispanic/Latinx	21%	14%	9%	19%	9%	41%	6%	44%	8%	37%	18%	8%
White Non-Hispanic	63%	70%	76%	62%	74%	41%	73%	44%	74%	48%	71%	69%
Black Non-Hispanic	9%	5%	6%	10%	15%	14%	6%	6%	9%	9%	3%	8%
Asian Non-Hispanic	4%	8%	9%	0%	3%	0%	3%	6%	5%	3%	3%	15%
Multiracial Non-Hispanic	2%	2%	0%	0%	0%	5%	9%	0%	3%	1%	3%	0%
Other Non-Hispanic	2%	1%	0%	10%	0%	0%	3%	0%	1%	3%	2%	0%
Language(s) spoken <sup>23</sup>												
English	97%	92%	100%	100%	97%	91%	100%	95%	99%	95%	95%	88%
Spanish	18%	11%	12%	14%	9%	32%	6%	38%	9%	30%	15%	5%
Other languages	12%	15%	18%	19%	8%	9%	15%	5%	14%	10%	12%	20%
Highest level of education completed												
High School diploma or GED	32%	27%	6%	52%	40%	48%	9%	47%	19%	49%	29%	25%
Associate's degree/technical/vocational degree	20%	24%	15%	29%	20%	29%	15%	19%	17%	24%	20%	30%
Bachelor's degree	32%	39%	48%	14%	23%	10%	52%	31%	41%	21%	41%	35%

<sup>21</sup> Summary statistics of educator characteristics include any educators who responded in both the fall and spring of their first year of participation.

<sup>22</sup> Race/ethnicity was recoded from two questions in the Educator Survey: (1) Which of the following best describes your race? (2) Are you of Hispanic, Latino, or Spanish origin or descent? All race/ethnicity categories are mutually exclusive.

<sup>23</sup> Respondents could select more than one option. Percentages within each column will not add up to 100%.





## APPENDIX A. SAMPLE DETAILS

Master's degree	16%	9%	30%	5%	17%	14%	24%	3%	24%	6%	9%	10%
Doctoral degree	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%
Major <sup>6</sup>												
Any education-related major	77%	86%	61%	81%	83%	86%	85%	73%	76%	79%	83%	90%
Early childhood education	62%	73%	36%	76%	71%	73%	64%	62%	57%	69%	70%	78%
Elementary education	7%	9%	9%	0%	11%	9%	9%	0%	10%	2%	11%	8%
Special education	1%	1%	3%	0%	0%	0%	0%	3%	1%	1%	0%	2%
Child development	11%	9%	6%	29%	11%	9%	6%	11%	8%	15%	9%	10%
Curriculum and instruction	4%	0%	9%	10%	0%	9%	0%	0%	3%	5%	0%	0%
Other education-related major (e.g., educ. psychology)	6%	6%	12%	5%	3%	5%	9%	0%	8%	2%	6%	5%
Professional certifications <sup>6</sup>												
Child Development Associate (CDA)	16%	16%	16%	16%	12%	14%	14%	14%	13%	20%	13%	20%
EEC professional certification	93%	90%	93%	90%	100%	90%	94%	91%	98%	86%	97%	84%
Infant-toddler Teacher	59%	52%	59%	52%	52%	58%	52%	60%	59%	59%	56%	56%
Infant-toddler Lead Teacher	39%	42%	39%	42%	30%	37%	36%	70%	31%	51%	34%	50%
Preschool Teacher	61%	55%	61%	55%	55%	74%	55%	60%	61%	61%	58%	59%
Preschool Lead Teacher	48%	69%	48%	69%	48%	37%	52%	60%	52%	42%	56%	54%
Director I	15%	31%	15%	31%	18%	0%	18%	15%	19%	10%	22%	19%
Director II	14%	20%	14%	20%	12%	5%	21%	15%	17%	10%	17%	15%
Prek-2 teaching license	2%	9%	2%	9%	6%	0%	6%	0%	4%	0%	5%	4%
Post Master's Certificate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	7%	7%	7%	7%	9%	5%	11%	5%	9%	4%	7%	6%
Number of years of experience...												
as educator in this program	11.48	13.31	10.09	12.47	16.62	11.76	10.72	7.59	12.59	10.03	12.72	14.28
in early education field overall	6.38	7.63	5.22	4.8	8.12	7.59	7.94	4.54	7.12	5.46	7.89	7.2
Works with...												
Infants	18%	19%	6%	29%	12%	33%	10%	27%	9%	29%	20%	18%
Toddlers	50%	25%	55%	43%	32%	62%	61%	51%	49%	52%	25%	25%
Preschoolers	62%	72%	71%	67%	68%	48%	68%	49%	69%	53%	63%	85%
School-age children	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%

*Baseline Equivalence of Analytic Samples***Exhibit A-4. Baseline Equivalence for Key Leader Outcomes (N = 60)**

	ECSO Overall	Comparison	ES
<b>Confidence</b>			
Average leader confidence	3.92	3.98	-0.08
Confidence in reflecting on data collaboratively with staff	3.80	3.71	0.08
Confidence in supporting educators to adapt curriculum	3.88	4.18	-0.30
Confidence in planning PLCs for educators	3.58	3.79	-0.19
Confidence in providing constructive feedback from observations	4.30	4.11	0.20
<b>Frequency in Leadership Practices</b>			
Collaborative data reflection with educators	1.77	2.01	-0.28
Educator child assessment data use support	2.31	1.96	0.35
Educator planning meetings	2.24	2.20	0.04
Educator curriculum implementation support	3.17	2.45	0.59
Observations of educators	2.71	3.26	-0.49
Provision of observation feedback to educators	2.37	2.45	-0.09
PILS	2.21	2.35	-0.22

**Exhibit A-5. Baseline Equivalence for Key Educator Outcomes (N = 288)**

	ECSO Overall	Comparison	ES
<b>Educator Support for Continuous Quality Improvement</b>			
Support for curriculum adaptation	57%	72%	-0.32
Observation by program leader	82%	86%	-0.11
Frequency of observation by program leader	2.41	2.44	-0.02
Provision of feedback by program leader	13%	8%	0.15
<b>Educator Planning Time</b>			
Received planning time	77%	78%	-0.03
<b>Educator Curriculum and Screener/Assessment Use</b>			
Used any curriculum	91%	89%	0.06
Received support on any curriculum	80%	71%	0.21
Received support on curriculum used	65%	62%	0.06



## APPENDIX A. SAMPLE DETAILS

Used any assessment/screener	86%	92%	-0.19
Received support on any assessment/screener	67%	79%	-0.27
Received support on assessment/screener used	57%	66%	-0.19
<b>Educator Plans to Stay</b>			
Intent to stay in ECE field	66%	77%	-0.24
Intent to stay in ECE program	61%	70%	-0.18



## Appendix B. ECSO Fidelity Matrices, 2023-24

Exhibit B-1. CLI Fidelity Matrix, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
<b>Strategy 1: Core Service Model Components</b>								
<b>Intake Meetings</b>	1 hour meeting with PIM, LIL and center leadership at beginning of year, prior to service	Site	CLI Records	PIM and PM Collected upon completion in first quarter	0 = No, Intake meeting was not held 1 = Yes, Intake meeting was held	Adequate implementation at site level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"	All Cohort D sites (9)	<b>Site/EEP Level:</b> Cohort D: 0/9: SCORE OF 0 9/9: SCORE OF 1
<b>Learning Walks</b>	3 hour classroom visit engagement with PIM, LIL, and center leadership	Site	CLI Records	PIM and PM Collected upon completion in first quarter	0 = No, Learning Walk meeting was not conducted 1 = Yes, Learning Walk meeting was conducted	Adequate implementation at site level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 0/9: SCORE OF 0 9/9: SCORE OF 1  Cohort D: 0/9: SCORE OF 0 9/9: SCORE OF 1



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

<b>Strategic Planning Meetings</b>	3 hour engagement with PIM, LIL, and center leadership for root cause analysis and action planning	Site	CLI Records	PIM and PM Collected upon completion in first quarter	0 = No, Strategic Planning meeting was not conducted 1 = Yes, Strategic Planning meeting was conducted	Adequate implementation at site level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 0/9: SCORE OF 0 9/9: SCORE OF 1  Cohort D: 0/9: SCORE OF 0 9/9: SCORE OF 1
<b>Data Analysis/Stepback Meetings</b>	3 hour engagements with PIM, LIL, and center leadership 2 times each year (Mid and End of Year)	Site	CLI Records	PIM and PM Collected upon completion by end of year	0 = No, Stepback meeting was not conducted 1 = Yes, Stepback meeting was conducted	Adequate implementation at site level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 0/9: SCORE OF 0 9/9: SCORE OF 1  Cohort D: 0/9: SCORE OF 0 9/9: SCORE OF 1
<b>Strategy 2: Leader Coaching</b>								
<b>Instructional Lead Coaching</b>	Direct coaching from the PIM and LIL to center leadership	Site	CLI Records (coaching year-to-date reports)	PIM, LIL, and PM Collected Weekly during coaching sessions	1 = Site leadership (at least one leader per site) receives less than 75% of expected coaching hours 2 = Site leadership (at least one leader per site) receives 76-95% of expected coaching hours	Adequate implementation at site lead level = score of "2"  0 = Less than 100% of programs have a score of "2" 1=100% of programs have at least a score of "2"	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 0/9: SCORE OF 1 0/9: SCORE OF 2 9/9: SCORE OF 3  Cohort D:



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

					3 = Site leadership (at least one leader per site) receives 95% or more of expected coaching hours	Adequate implementation at program level=score of "1"		0/9: SCORE OF 1 1/9: SCORE OF 2 8/9: SCORE OF 3
<b>Strategy 3: Leader PLC and Critical Friends</b>								
<b>Professional Learning Community (PLC) Director Meetings</b>	Participation in ten PLC meetings per school year 1 Hours Each * Instructional Lead Trainings were integrated into PLCs for leaders.	Site	CLI Records (sign-in sheets; system data entry)	PIM and PM Collected quarterly (1 week after a PLC is held)	1 = Site leadership (at least one leader per site) attends 0-6 PLC Meetings 2 = Site leadership (at least one leader per site) attends 7-9 PLC Meetings 3 = Site leadership (at least one leader per site) attends 10 PLC Meetings	Adequate implementation at site level = score of "2"  0 = Less than 100% of programs have a score of "2" 1=100% of programs have a score of "2"  Adequate implementation at program level=score of "1"	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 4/9: SCORE OF 1 4/9: SCORE OF 2 1/9: SCORE OF 3  Cohort D: 7/9: SCORE OF 1 2/9: SCORE OF 2 0/9: SCORE OF 3
<b>Critical Friends Site Visits</b>	Host or go on collegial visits to other sites	Site	CLI Records (sign-in sheets)	PIM and PM Collected at CF/SV	0 = No, Site Leadership (at least one leader per site) did not go on or host a visit 1 = Yes, Site leadership (at least one leader per site) went on or hosted a visit	Adequate implementation at site level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"  Adequate implementation at	All Cohort C and D sites (18)	<b>Site/EEP Level:</b> Cohort C: 2/9: SCORE OF 0 7/9: SCORE OF 1  Cohort D: 2/9: SCORE OF 0 7/9: SCORE OF 1





APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Strategy 4: Teacher Coaching							
<b>Teacher Coaching</b>	Direct coaching from a CLI LIL	Classroom	CLI Records (coaching year-to-date reports)	LIL and PM Collected weekly	<p>1 = Classroom representative receives less than 74% of expected coaching hours or less of expected coaching hours</p> <p>2 = Classroom representative receives 75-95% of expected coaching hours</p> <p>3 = Classroom representative receives over 95% of expected coaching hours of expected coaching hours</p>	<p>Adequate implementation at classroom level = score of "2"</p> <p>0 = Less than 90% of a program's classrooms have a score of "2"</p> <p>1= 90% or more of program's classrooms have a score of "2"</p> <p>Adequate implementation at program level=score of "1"</p>	<p>All classrooms across cohort C and D programs (95)</p> <p><b>Classroom Level:</b>  <i>Cohort C:</i>            0/54: SCORE OF 1            3/54: SCORE OF 2            51/54: SCORE OF 3</p> <p><i>Cohort D:</i>            0/39: SCORE OF 1            2/39: SCORE OF 2            37/39: SCORE OF 3</p> <p><b>Site/EEP Level:</b>  <i>Cohort C: 9/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i>  <i>Cohort D: 9/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i></p>
Strategy 5: Teacher Trainings							



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

<p><b>Teacher Training</b></p>	<p>2-hour workshop (per age group track) 4 sessions per age group; 8 topics total</p>	<p>Classroom</p>	<p>CLI Records (sign-in sheets; system data entry)</p>	<p>PIM, LIL, PM  Collected quarterly</p>	<p>1 = Classroom representative attends 0-2 sessions 2 = Classroom representative attends 3-4 sessions</p>	<p>Adequate implementation at classroom level = score of "2"  0 = Less than 90% of program's classrooms have a score of "2" 1=90% or more of program's classrooms have a score of "2"  Adequate implementation at program level=score of "1"</p>	<p>All classrooms across cohort C and D programs (95)</p>	<p><b>Classroom Level:</b> <i>Cohort C:</i> 11/54: SCORE OF 1 43/54: SCORE OF 2 <i>Cohort D:</i> 14/39: SCORE OF 1 25/39: SCORE OF 2  <b>Site/EEP Level:</b> <i>Cohort C:</i> 4/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2) <i>Cohort D:</i> 1/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2)</p>
<b>Strategy 6: Financial Incentives/Materials</b>								
<p><b>Training Stipends</b></p>	<p>Receipt of personal use stipend for attending trainings</p>	<p>Teacher</p>	<p>CLI Records (tracker used by project team, expense reports can be requested from business office accounting) FY24 Stipend Tracker.xlsx</p>	<p>PM  Collected within one week of mailing</p>	<p>0 = No, ECSO did not disperse eligible stipends to all teachers 1 = Yes, ECSO dispersed eligible stipends to all teachers</p>	<p>Adequate implementation at ECSO level = score of "1"</p>	<p>Teachers in Cohort C and D Sites who attended the trainings</p>	<p>ECSO Level: <i>Cohort C:</i> YES <i>Cohort D:</i> YES</p>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

<p><b>Literacy Materials</b></p>	<p>Stipend expenditures on classroom resources and materials</p>	<p>Classroom</p>	<p>Lakeshore Order Tracking FY24.xlsx</p>	<p>PM Collected upon order completion</p>	<p>0 = Classroom representatives spent less than received stipend 1 = Classroom representatives spent all of received stipend</p>	<p>Adequate implementation at classroom level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"  Adequate implementation at program level=score of "1"</p>	<p>All classrooms across cohort C and D programs (95)</p>	<p><b>Cohort C:</b> 0/54: SCORE OF 0 54 /54: SCORE OF 1  <b>Cohort D:</b> 0/39: SCORE OF 0 39/39: SCORE OF 1  <b>Site/EEP Level:</b> <i>Cohort C:9/9 sites with a score of 1 (had 100% of classrooms with a score of 1)</i> <i>Cohort D: 9/9 sites with a score of 1 (had a 100% of classrooms with a score of 1)</i></p>
<p><b>Materials</b></p>	<p>One Book Collection (Blueprint or Infant Toddler, and sometimes a 3 YO supplemental collection) to each classroom in Cohorts D</p>	<p>Classroom</p>	<p>Inventory reports from distribution team Fidelity Matrix Data Record.xlsx</p>	<p>PM As shipments are received (on a rolling basis)</p>	<p>0 = No, classroom did not receive materials 1 = Yes, classroom did receive materials</p>	<p>Adequate implementation at classroom level = score of "1"  0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"  Adequate implementation at</p>	<p>All classrooms across cohort D programs</p>	<p><b>Classroom Level:</b> <i>Cohort D:</i> 0 /39: SCORE OF 0 39 /39: SCORE OF 1  <b>Site/EEP Level:</b> <i>Cohort D: 9/9 sites with a score of 1 (100% of</i></p>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

						program level=score of "1"		classrooms with a score of 1)
<b>Strategy 7: Leader Coaching Logs</b>								
<b>Leader Coaching Logs</b>	All leadership teams access a Leader Coaching Log to track coaching efforts through Support and Capacity building phase	Classroom	Touchpoint Counts	Leader, PIM Collected weekly	1 = Classroom representative receives 0-6 coaching touchpoints 2 = Classroom representative receives 7-10 coaching touchpoints 3 = Classroom representative receives 11-15 coaching touchpoints	Adequate implementation at classroom level = score of "2"  0 = Less than 90% of program's classrooms have a score of "2" 1=90% or more of program's classrooms have a score of "2"  Adequate implementation at program level=score of "1"	All classrooms across cohort C and D programs (95)	<b>Classroom Level:</b> <i>Cohort C:</i> 30/54: SCORE OF 1 2/54: SCORE OF 2 22/54: SCORE OF 3  <i>Cohort D:</i> 36/39: SCORE OF 1 0/39: SCORE OF 2 3/39: SCORE OF 3  <b>Site/EEP Level:</b> <i>Cohort C: 2/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i> <i>Cohort D: 1/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i>
<b>Strategy 8: Consultancy</b>								



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

<p><b>Instructional Lead Coaching (Consultancy)</b></p>	<p>Direct coaching from the PIM and LIL to center leadership</p>	<p>Site</p>	<p>CLI Records (coaching year-to-date reports)</p>	<p>PIM and PM  Collected Weekly during coaching sessions</p>	<p>1 = Site leadership (at least one leader per site) receives less than 50% of expected coaching hours 2 = Site leadership (at least one leader per site) receives 50-99% of expected coaching hours 3 = Site leadership (at least one leader per site) receives 100% or more of expected coaching hours</p>	<p>Adequate implementation at site lead level = score of "2"  0 = Less than 90% of programs have a score of "2" 1=90% of programs have at least a score of "2"  Adequate implementation at program level=score of "1"</p>	<p>All Cohort A and B sites (15)</p>	<p><b>Site/EEP Level:</b> <i>Cohort A: 4/6 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i> <i>Cohort B: 6/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i></p>
<p><b>Professional Learning Community (PLC) Director Meetings (Consultancy)</b></p>	<p>Participation in 6 PLC meetings per school year 1 Hours Each * Instructional Lead Trainings were integrated into PLCs for leaders.</p>	<p>Site</p>	<p>CLI Records (sign-in sheets; system data entry)</p>	<p>PIM and PM Collected quarterly (1 week after a PLC is held)</p>	<p>1 = Site leadership (at least one leader per site) attends 0-2 PLC Meetings 2 = Site leadership (at least one leader per site) attends 3-5 PLC Meetings 3 = Site leadership (at least one leader per site) attends 6 PLC Meetings</p>	<p>Adequate implementation at site level = score of "2"  0 = Less than 90% of programs have a score of "2" 1=90% of programs have a score of "2"  Adequate implementation at program level=score of "1"</p>	<p>All Cohort A and B sites (15)</p>	<p><b>Site/EEP Level:</b> <i>Cohort A: 2/6 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i> <i>Cohort B: 3/9 sites with a score of 1 (had at least 90% of classrooms with a score of 2 or 3)</i></p>
<p><b>Literacy Materials (Consultancy)</b></p>	<p>Stipend expenditures on classroom resources and materials</p>	<p>Classroom</p>	<p>Reports from supply partner (Lakeshore Learning) Lakeshore Order Tracking FY24.xlsx</p>	<p>PM  Collected upon order completion</p>	<p>0 = Classroom representatives spent less than received stipend 1 = Classroom representatives</p>	<p>Adequate implementation at classroom level = score of "1"</p>	<p>All classrooms across cohort A and B programs</p>	<p><b>Site/EEP Level:</b> <i>Cohort A: 63/63 classrooms with a score of 1</i></p>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

					spent all of received stipend	0 = Less than 100% of programs have a score of "1" 1=100% of programs have a score of "1"  Adequate implementation at program level=score of "1"		<i>Cohort B: 43/43 classrooms with a score of 1</i>
<b>Leader Coaching Logs (Consultancy)</b>	All leadership teams access a Leader Coaching Log to track coaching efforts through Support and Capacity building phase	Classroom	Touchpoint Counts	Leader, PIM  Collected weekly	1 = Classroom representative receives 0-3 coaching touchpoints 2 = Classroom representative receives 4-8 coaching touchpoints 3 = Classroom representative receives 8-10 coaching touchpoints	Adequate implementation at classroom level = score of "2"  0 = Less than 90% of program's classrooms have a score of "2" 1=90% or more of program's classrooms have a score of "2"  Adequate implementation at program level=score of "1"	All classrooms across Cohort A and B	<b>Classroom Level:</b> <i>Cohort A:</i> 63/63: SCORE OF 1 0/63: SCORE OF 2 0/63: SCORE OF 3  <i>Cohort B:</i> 41/43: SCORE OF 1 1/43: SCORE OF 2 1/43: SCORE OF 3  <b>Site/EEP Level:</b> <i>Cohort A: 0/6 sites with a score of 2 (had at least 90% of classrooms with a score of 2)</i> <i>Cohort B: 0/ sites with a score of 1 (had at least 90% of</i>





APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

								classrooms with a score of 2)
--	--	--	--	--	--	--	--	-------------------------------

Exhibit B-2. Flamingo Fidelity Matrix, 2023-24

Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
<b>Strategy 1: Community of Practice Sessions</b>								
<b>1.1 CoP Sessions – Instructional Lead-Led</b>	CoP Sessions with educators that are Instructional Leader led.  IL = Instructional Leaders	IL team (program level)	Recording through SWIVL and copied to UF Dropbox. Coded with CoP fidelity tool.  LeaderCoPFidelity.AcrossTime.xlsx (note: Lastinger access only at this time)	UF Lastinger Implementation Specialists collect CoP Session recording at least once annually.	1 = The team’s videoed sessions achieved an average of 60% fidelity to model using fidelity tool; 0 = The team’s videoed sessions achieved less than an average of 60% fidelity to model using fidelity tool;	1 = At least 85% of IL Teams scored 1; 0 = <85% of IL Teams scored 1	All Instructional Leaders Teams	Overall: YES, 93% (25 out of 27 programs) Cohort 1: YES, 89% (8 out of 9 programs) Cohort 2: YES, 88% (7 out of 8 programs) Cohort 3: YES, 100% (10 out of 10) Cohort 4: NA (only collected baseline this year)
<b>1.2 CoP Session Frequency</b>	Number of expected sessions	IL team (program level)	Data Collection support log	Monthly sessions (where applicable) recorded monthly on Abt Data Collection	1 = IL team participated in 80% of sessions offered, or for programs on consult, IL team attended at least 4 times Cohorts 1 and 2 on consults 0 = IL team did not participate in 80%	1 = At least 80% of IL Teams scored 1; 0 = <80% of IL Teams scored 1	All IL Teams	Overall: YES, 80% (28 out of 35 programs) Cohort 1: NO, 67% (6 out of 9 programs) Cohort 2: NO, 75% (6 out of 8 programs)



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
					of sessions offered, or IL team on consult did not attend once a quarter			Cohort 3: YES, 100% (9 out of 9) Cohort 4: NO, 78% (7 out of 9)
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-3	Adequate implementation = 2		Overall: YES Cohort 1: NO Cohort 2: NO Cohort 3: YES Cohort 4: NO
<b>Strategy 2: One-to-one coaching (to ILs)</b>								
<b>2.1 Individualized coaching sessions</b>	Monthly coaching sessions between UF Lastinger Implementation Specialists and each IL Team	IL Teams	Coaching logs found on the Abt Data Reporting Shell	UF Implementation Specialists submitted logs 1x per program monthly	1= IL Teams attended 80% of monthly coaching sessions offered, or IL team on consult attended at least 4 times. 0= IL Teams attended less than 80% of monthly coaching sessions offered, or IL team on consult did not attend at least 4 times	1 = 90% of IL Teams scored a 1; 0 = <90% of IL Teams scored 1	All ILTeams	Overall: NO, 71% (25 out of 35 programs) Cohort 1:NO, 44% (4 out of 9) Cohort 2: NO, 38% (3 out of 8) Cohort 3: YES, 100% (9 out of 9) Cohort 4: YES, 100% (9 out of 9)
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-2	Adequate implementation = 1		Overall: NO Cohort 1: NO Cohort 2: NO Cohort 3: YES Cohort 4: YES
<b>Strategy 3: Leadership development course</b>								
<b>3.1 Access and Enrollment in Instructional Leadership</b>	UF Lastinger Staff provide access to program leaders	UF Flamingo Early Learning Team	Flamingo Early Learning Platform	Flamingo Early Learning platform captures	<b>Only applicable for Cohort 3</b>	Adequate implementation=Score of 1	All Programs	Overall: YES: 100% (9 out of 9)



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

for Early Childhood Education Course				enrollment and participant progress	1 = At least one Instructional Leader per program is given access to course; 0 = Not all programs are given access to course			9) achieved fidelity. Cohort 1: NA (already taken) Cohort 2: NA (already taken) Cohort 3: NA (already taken) Cohort 4: 100% (9 out of 9)
<b>3.2 Mastery of Instructional Leadership for Early Childhood Education courses</b>	Instructional Leaders mastery in Flamingo Early Learning Instructional Leadership Course	Instructional Leader Teams (programs)	Flamingo Early Learning Platform	Flamingo Early Learning platform capture participation and overall mastery in course	<b>Only applicable for Cohort 3</b> 1 = At least one Instructional Leader per program demonstrates mastery in course; if program has already achieved mastery this does not apply 0 = No Instructional Leader in a program demonstrates mastery in course	1 = At least 85% of programs scored 1;  0 = <85% of programs scored 1	All Programs	Overall: YES: 89% (8 out of 9) achieved fidelity. Cohort 1: NA (already taken) Cohort 2: NA (already taken) Cohort 3: NA (already taken) Cohort 4: 89% (8 out of 9)
	N/A	N/A	N/A	N/A	0-2	Adequate implementation = 2		Overall: YES Cohorts 1 – 3: NA Cohort 4: yes, 89%
<b>Strategy 4: System of data collection and analysis</b>								
<b>4.1 Classroom Observation Data report shared with program</b>	Periodic sharing of classroom observation scores to programs	Instructional Leader Teams (programs)	Emailed CLASS Assessment documentation (in-person or zoom documents)	Flamingo Early Learning Team at least 1x a year.	1 = IL/program received at least one CLASS observation reports; 0= IL/program received fewer than 1 report	1= At least 60% of ILs/programs scored 1; (Not applicable for Cohort 1 0 = Less than 60% ILs/programs scored 1	All programs	Overall: YES: 100% (9 out of 9) achieved fidelity. Cohort 1: NA Cohort 2: NA Cohort 3: NA Cohort 4: 100% (9 out of 9)



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

4.2 Classroom Observation Data Conversation	Periodic conversations about classroom observation between ECSO coaches and ILs	Instructional Leader Teams (programs)	Coaching conversation tracking (captured on Abt Data Reporting Shell)	UF Lastinger Implementation Specialist at least 1x a year.	1 = IL/program engaged in at least one CLASS observation conversation; 0= IL/program engaged in <1 conversations	1= 100% ILs/programs that were provided a data report scored 1; 0 = < 100% that were provided a data report ILs/programs scored 1	All programs	Overall: YES: 100% (9 out of 9) achieved fidelity. Cohort 1: NA Cohort 2: NA Cohort 3: NA Cohort 4: 100% (9 out of 9)
All indicators	N/A	N/A	N/A	N/A	0-2	Adequate implementation = 2		Overall: YES Cohorts 1 – 3: NA Cohort 4: YES, 100%
<b>Strategy 5: Facilitation of IL's UF Certified Coaching certification</b>								
5.1 Access and Enrollment in UF Lastinger Online Coaching Certification Program	Instructional Leaders are provided access to UF Lastinger Online coaching certification modules	Instructional Leader Teams (programs)	Flamingo Early Learning Platform (poll data)	Flamingo Early Learning platform captures enrollment and participant progress	<b>Only applicable for Cohort 2</b>  1 = At least one Instructional Leader per program is given access to course; 0 = No instructional Leader in a program is given access to course	1 = 100% of programs scored 1;  0 = <100% of programs scored 1	All Programs	Overall: YES: 100% (8 out of 8) achieved fidelity. Cohort 1: NA (already taken) Cohort 2: NA (already taken) Cohort 3: YES, 100% (9 out of 9) Cohort 4: NA
5.2 Participation in UF Lastinger Online Coaching Certification Program	Instructional Leaders participate in UF Lastinger Online coaching certification modules	Instructional Leader Teams (programs)	Flamingo Early Learning platform	Flamingo Early Learning platform captures participation and overall mastery in certification modules	<b>Only applicable for Cohort 2</b>  1 = At least one Instructional Leader per program completes UF Lastinger Coaching Certification; 0 = No Instructional Leader in a program	1 = At least 80% of programs scored 1; 0 = <80% of programs scored 1	All Programs	Overall: YES: 100% (8 out of 8) achieved fidelity. Cohort 1: NA (already taken) Cohort 2: NA (already taken) Cohort 3: YES, 100% (9 out of 9)



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

					completes UF Lastinger Coaching Certification			Cohort 4: NA
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-2	2		Overall: YES Cohorts 1, 2, 4: NA Cohort 3: YES, 100%
<b>Strategy 6: ECSO connection between programs and BPS-provided teacher training</b>								
6.1 UF Implementation specialists attend all BPS PD	6 hours of BPS intro and subsequent spring sessions	UF Lastinger Implementation Specialists	Attendance confirmation via email (from BPS)	Implementation specialists communicate to Ron	1 = At least one UF Lastinger Implementation Specialist attends BPS intro and sessions; 0 = At least one UF Lastinger Implementation Specialist does NOT attend BPS intro and all sessions	1 = At least one UF Lastinger Implementation Specialists scored 1; 0 = At least one Lastinger Implementation Specialists did not score a 1	At least one Lastinger Implementation Specialists	YES: 100% (1 out of 1) of UF Lastinger Implementation Specialists attended six hours of BPS introductory training.
6.2 UF implementation specialists meet with BPS coach	Monthly meetings and/or communication between BPS coaches and Implementation specialists	BPS coaches/ UF Lastinger Implementation Specialists	Attendance and/or communication confirmation via email	Implementation specialists communicate to Ron	1 = At least one UF Lastinger Implementation Specialist attends all meetings/calls and/or communicates w/ BPS; 0 = At least UF Lastinger Implementation Specialist does NOT attend all meetings/calls and/or communicate w/ BPS	1 = At least one UF Lastinger Implementation Specialists scored 1; 0 = At least one Lastinger Implementation Specialists did not score a 1	At least one Lastinger Implementation Specialists	YES: 100% (1 out of 1) of UF Lastinger Implementation Specialists have attended or communicated with BPS, although we note this has been limited by BPS availability.
6.3 ECSO provides support to IL to support teachers using the BPS model	UF Implementation specialists discuss BPS coaching during IL coaching sessions	UF Lastinger Implementation Specialist	Supports log	UF Lastinger Implementation Specialists submit information of the coaching	1 = UF Lastinger Implementation Specialist relays BPS coaching updates each IL coaching session	1 = At least one of UF Lastinger Implementation Specialists scored 1; 0 = Fewer than one UF Lastinger	UF Lastinger Implementation Specialist (Theresa)	YES: 100% (1 out of 1) of UF Lastinger Implementation Specialists has provided BPS-related coaching updates as



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

				session onto the ABT Data Reporting Shell	0 = UF Lastinger Implementation Specialist does NOT relay BPS coaching updates each IL coaching session	Implementation Specialists scored 1		they have been made available.
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-3	3		YES
<b>Strategy 7: Flamingo early learning courses (for educators) - EDUCATOR SPECIFIC SUPPORTS</b>								
<b>Educator courses information shared with program</b>	Information provided to programs by Flamingo team	Program	Information shared as announcement on educator group page on Flamingo platform; poll data about interest in course	Collected by Implement Specialist (same as above) on Abt data shell	1 = Program was provided course information; 0 = Program was not provided course information	1 = At least 90% of programs scored 1; 0 = <90% of programs scored 1	All educators	Overall: YES: 100% (18 out of 18) achieved fidelity. Cohort 1: NA Cohort 2: NA Cohort 3: 100% (9 out of 9) Cohort 4: 100% (9 out of 9)
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-1	1		Overall: YES Cohorts 1, 2: NA Cohort 3: YES, 100% Cohort 4: YES, 100%

Exhibit B-3. UMB Fidelity Matrix, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
<b>Strategy 1: Essentials 0-5 Survey Use Training (Cohort 4)</b>								





APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
<b>Survey Administration and Report Trainings</b>	1. Survey introduction and orientation (1 hour) 2. Survey Report Webinar (2 hours)	Program (ILs)	Smartsheet – Attendance logs	1. Oct 2023 2. January 2024	0= program misses one or more trainings 1= program participates in both trainings	0= fewer than 6 (of 8) programs scored 1. 1 = at least 6 (of 8) programs scored 1.	All Cohort 4 programs	7 of 8 programs scored 1  <b>YES</b>
<b>Work Session Delivery (ECSO to ILs)</b>	6 hours delivered at one in-person training session	Program (ILs)	Smartsheet – Attendance logs	January 2024	0= program did not complete training 1= program did complete training	0= fewer than 6 (of 8) programs scored 1. 1 = at least 6 (of 8) programs scored 1.	All Cohort 4 programs	7 of 8 programs scored 1  <b>YES</b>
<b>All indicators</b>	N/A	N/A	N/A	N/A	Possible score: 0-2 Adequate implementation=score of 2	At least 6 (of 8) programs scored a 2	All Cohort 4 programs	<b>6 of 8 programs scored 2</b>  <b>YES</b>
<b>Strategy 2: Survey Administration (All Cohorts)</b>								
<b>Educator participation</b>	Educator respondents submission of survey	Program (educ)	Survey dashboard linked to roster	One time; Fall/winter	0= program doesn't meet benchmark; 1= program does meet benchmark  *Reporting threshold: At least 50% of all eligible teachers and staff and at least 6 completed teacher/staff surveys	<u>Cohort 1:</u> 0= fewer than 8 (of 11) programs scored 1. 1 = at least 8 (of 11) programs scored 1.  <u>Cohort 2:</u> 0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.  <u>Cohort 3:</u> 0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.	All programs	<b>Programs meeting benchmark</b>  Cohort 1: 9 of 11 Cohort 2: 3 of 5 Cohort 3: 4 of 5 Cohort 4: 5 of 8  All Cohorts: 21 of 29  <b>NO</b>
<b>Parent participation</b>	Parent respondents submission of survey	Program (parents)	Survey dashboard (based on enrollment)	One time; Fall/winter	0= program doesn't meet benchmark;	0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.	All programs	<b>Programs meeting benchmark</b>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
					1= program does meet benchmark  *Reporting threshold: At least 25% of all eligible parents or guardians and at least 15 completed parent surveys	<u>Cohort 4:</u> 0= fewer than 6 (of 8) programs scored 1. 1 = at least 6 (of 8) programs scored 1.  <b>C1-C4 Combined:</b> 0= fewer than 22 (of 29) programs scored 1. 1 = at least 22 (of 29) programs scored 1.		Cohort 1: 7 of 11 Cohort 2: 3 of 5 Cohort 3: 3 of 5 Cohort 4: 4 of 8  All Cohorts: 17 of 29  <b>NO</b>
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-2	2		
<b>Strategy 3: ELM Training (Cohorts 3 and 4)</b>								
<b>ELM Training Modules</b>	2 hours of ELM training (December 2023)	Program (1 or more ILs per program)	Smartsheets completed monthly	Coaches enter, monthly	0= program did not participate 1= program did participate	<u>Cohort 3:</u> 0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.  <u>Cohort 4:</u> 0= fewer than 6 (of 8) programs scored 1. 1 = at least 6 (of 8) programs scored 1.  <b>C3-C4 Combined:</b> 0= fewer than 10 (of 13) programs scored 1.  1 = at least 10 (of 13) programs scored 1.	All Programs	Cohort 3: 4 of 5 programs scored 1  Cohort 4: 7 of 8 programs scored 1  All Cohorts: 11 of 13 scored 1  <b>YES</b>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
All indicators	N/A	N/A	N/A	N/A	0-1	1		
<b>Strategy 4: Coaching (TA) Cohorts 3 and 4</b>								
Coaching Sessions	<p><b>One-hour monthly coaching sessions – full year for cohort 3 and October start for cohort 4</b></p> <p>Leadership coaches deliver TA sessions monthly to assigned program Instructional Leaders.</p> <p>Since it is a responsive model, topics vary based on where leaders are at with their learning and implementation of model specific activities.</p>	Program (1 or more ILs per program)	Smartsheets completed monthly	Coaches enter, monthly	<p><u>Cohort 3</u></p> <p>0= program participates in fewer than 9 (of 12) Sessions;</p> <p>1= program participates in at least 9 (of 12) sessions</p> <p><u>Cohort 4</u></p> <p>0= program participates in fewer than 7 (of 9) Sessions;</p> <p>1= program participates in at least 7 (of 9) sessions</p>	<p><u>Cohort 3:</u></p> <p>0= fewer than 4 (of 5) programs scored 1.</p> <p>1 = at least 4 (of 5) programs scored 1.</p> <p><u>Cohort 4:</u></p> <p>0= fewer than 6 (of 8) programs scored 1.</p> <p>1 = at least 6 (of 8) programs scored 1.</p> <p><b>C3-C4 Combined:</b></p> <p>0= fewer than 10 (of 13) programs scored 1.</p> <p>1 = at least 10 (of 13) programs scored 1.</p>	All Programs	<p>Cohort 3: 2 of 5 programs scored 1</p> <p>Cohort 4: 5 of 8 programs scored 1</p> <p>All Cohorts: 7 of 13 programs scored 1</p> <p><b>NO</b></p>
All indicators	N/A	N/A	N/A	N/A	0-1	1		
<b>Strategy 5: PLCs All Cohorts</b>								
Peer Learning Communities	<p><b>1.5 hour sessions – “quarterly” for cohorts 1-2 and “monthly” for cohorts 3-4. PLCs for Cohort 4 began in October.</b></p>	<p>Program (1 or more ILs per program)</p> <p>* For PLCs we considered a program to have participated if they</p>	Smartsheets completed monthly	Coaches enter, monthly	<p><u>Cohorts 1 and 2</u></p> <p>0= program participates in fewer than 2 (of 3) Sessions;</p> <p>1= program participates in at least 2 (of 3) sessions</p>	<p><u>Cohort 1:</u></p> <p>0= fewer than 8 (of 11) programs scored 1.</p> <p>1 = at least 8 (of 11) programs scored 1.</p> <p><u>Cohort 2:</u></p>	All programs	<p>Cohort 1: 7 of 11 scored 1</p> <p>Cohort 2: 4 of 5 scored 1</p> <p>Cohort 3: 3 of 5 scored 1</p>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
	Instructional Leaders and Leadership Coaches collaborate in a responsive manner to topics relevant to current implementation activities in programs. Instructional Leaders present on their implementation activities and receive feedback as well as celebrate accomplishments and potentially gain support with problems of practice to make program improvements.	attended the session for at least an hour.			<p><u>Cohort 3</u> 0= program participates in fewer than 7 (of 9) Sessions; 1= program participates in at least 7 (of 9) sessions</p> <p><u>Cohort 4</u> 0= program participates in fewer than 5 (of 6) Sessions; 1= program participates in at least 5 (of 6) sessions</p>	<p>0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.</p> <p><u>Cohort 3:</u> 0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.</p> <p><u>Cohort 4:</u> 0= fewer than 6 (of 8) programs scored 1. 1 = at least 6 (of 8) programs scored 1.</p> <p><b>C1-C4 Combined:</b> 0= fewer than 22 (of 29) programs scored 1. 1 = at least 22 (of 29) programs scored 1.</p>		<p>Cohort 4: 6 of 8 scored 1</p> <p>All Cohorts: 20 of 29 scored 1</p> <p><b>NO</b></p>
<b>All indicators</b>	N/A	N/A	N/A	N/A	0-1	1		
<b>Strategy 6: Transfer to Practice (Cohorts 3 and 4)</b>								
<b>Implementation of ELM Routines</b>	By end of year, programs are at least “starting to” implement the three key ELM routines with their educators: <ul style="list-style-type: none"> <li>Data Dialogues</li> <li>Peer Learning Communities</li> </ul>	Program (1 or more ILs per program)	Coaching reflection forms provide implementation ratings on the following scale: <i>Exploring/understanding</i> <i>Planning to</i> <i>Starting to</i> <i>Doing regularly</i>	Completed by coaches after each program coaching session	0= program <b>starting to</b> implement less than 2 routines 1= program <b>starting to</b> implement 2 or 3 routines	<p><u>Cohort 3:</u> 0= fewer than 4 (of 5) programs scored 1. 1 = at least 4 (of 5) programs scored 1.</p> <p><u>Cohort 4:</u> 0= fewer than 6 (of 8) programs scored 1.</p>	All programs	<p>Cohort 3: 2 of 5 programs scored 1</p> <p>Cohort 4: 0 of 8 programs scored 1</p>



APPENDIX B. ECSO FIDELITY MATRICES, 2023-24

Year 4 (2023-2024)								
Indicators	Definition	Unit of Implementation	Data Source(s)	Data Collection (who, when)	Score for levels of implementation at unit level	Threshold for adequate implementation at unit level	Expected sample for fidelity measure	Determination of Fidelity (Yes/No)
	<ul style="list-style-type: none"> <li>Team Lesson Planning</li> </ul>		<i>Reviewing and adapting</i>			1 = at least 6 (of 8) programs scored 1.  <b>C3-C4 Combined:</b> 0= fewer than 10 (of 13) programs scored 1.  1 = at least 10 (of 13) programs scored 1.		All Cohorts: 2 of 13 programs scored 1  <b>NO</b>
All indicators	N/A	N/A	N/A	N/A	0-1	1		



## Appendix C. Data Tables

Exhibit C-1. Adjusted Descriptives<sup>24</sup> for Leader Outcomes by ECSO and Cohort

		Cohort 3 + 4 Combined			Cohort 3			Cohort 4		
		Fall (Baseline)	Spring (Outcome)	Pre-Post Difference	Fall (Baseline)	Spring (Outcome)	Pre-Post Difference	Fall (Baseline)	Spring (Outcome)	Pre-Post Difference
<b>Confidence</b>										
Average Leader Confidence	Treatment	3.93	4.12	0.19	4.06	4.00	-0.07	3.76	4.02	0.26
	CLI	4.10	4.06	-0.05	4.06	3.78	-0.29	4.03	4.20	0.18
	Flamingo	3.93	4.20	0.27	4.08	4.18	0.11	3.72	3.92	0.21
	UMB	3.85	4.03	0.18	4.01	3.63	-0.38	3.74	4.06	0.33
	Comparison	3.88	4.00	0.13	3.57	3.76	0.19	4.17	4.40	0.23
Confidence in reflecting on data collaboratively with staff	Treatment	3.82	3.81	-0.01	3.84	4.00	0.16	3.80	4.01	0.21
	CLI	4.05	4.07	0.02	3.68	4.19	0.51	4.43	4.31	-0.12
	Flamingo	3.91	4.33	0.42	3.91	4.05	0.14	3.88	3.81	-0.07
	UMB	3.53	4.02	0.49	3.78	3.61	-0.18	3.53	4.15	0.63
	Comparison	3.65	4.02	0.37	2.86	3.44	0.57	4.24	4.22	-0.02
Confidence in supporting educators to adapt curriculum	Treatment	3.91	3.82	-0.10	4.10	4.19	0.09	3.72	4.18	0.46
	CLI	4.59	4.23	-0.36	4.74	4.07	-0.67	4.35	4.43	0.07
	Flamingo	3.77	4.32	0.56	3.78	4.26	0.47	3.70	4.16	0.46
	UMB	3.79	4.26	0.47	4.42	4.12	-0.30	3.54	4.12	0.58
	Comparison	4.07	4.11	0.05	3.86	4.03	0.18	4.25	4.57	0.31
Confidence in planning PLCs for educators	Treatment	3.61	4.29	0.68	3.77	4.22	0.44	3.38	3.98	0.60
	CLI	3.55	4.16	0.61	3.64	3.96	0.32	3.29	4.00	0.72
	Flamingo	3.75	4.04	0.29	3.92	4.38	0.47	3.49	4.02	0.53
	UMB	3.39	4.28	0.88	3.46	3.98	0.53	3.28	3.92	0.64
	Comparison	3.70	4.00	0.30	3.45	3.43	-0.02	3.98	4.22	0.23
Confidence in providing constructive feedback from observations	Treatment	4.30	3.81	-0.50	4.45	4.15	-0.29	4.15	4.23	0.08
	CLI	4.38	4.31	-0.07	4.26	3.81	-0.45	4.42	4.89	0.47
	Flamingo	4.20	4.35	0.15	4.61	4.39	-0.22	3.88	3.96	0.08
	UMB	4.45	4.34	-0.10	4.20	3.93	-0.27	4.36	4.33	-0.04
	Comparison	3.98	4.23	0.25	3.70	4.09	0.39	4.26	4.43	0.17
<b>Practices</b>										
Collaborative data reflection with educators	Treatment	1.73	2.41	0.68	1.66	2.18	0.52	1.87	2.50	0.63
	CLI	1.98	2.93	0.94	2.13	2.17	0.03	1.94	3.42	1.49
	Flamingo	1.56	2.26	0.70	1.55	2.01	0.46	1.71	2.27	0.56
	UMB	1.89	2.38	0.49	1.61	2.63	1.01	2.02	2.42	0.41
	Comparison	2.12	2.17	0.05	2.07	2.01	-0.06	2.07	2.39	0.32
Educator child assessment data use support	Treatment	2.32	2.33	0.02	2.04	2.11	0.08	2.48	2.37	-0.11

<sup>24</sup> ‘Adjusted’ means that spring outcome means were calculated controlling for fall scores along with individual- and program-level covariates where applicable; fall baseline means were calculated controlling for covariates.





## APPENDIX C. DATA TABLES

	CLI	2.30	2.44	0.14	1.64	2.43	0.79	2.91	2.30	-0.61
	Flamingo	2.53	2.17	-0.36	2.22	1.76	-0.47	2.61	2.16	-0.45
	UMB	1.97	2.55	0.58	1.85	2.83	0.98	2.20	2.59	0.40
	Comparison	1.99	2.37	0.38	1.87	2.16	0.29	2.13	2.68	0.55
Educator planning meetings	Treatment	2.23	2.40	0.17	1.98	2.12	0.14	2.38	2.63	0.25
	CLI	2.78	2.90	0.13	2.56	2.37	-0.19	2.83	3.35	0.52
	Flamingo	2.24	2.32	0.08	1.95	2.24	0.28	2.48	2.40	-0.08
	UMB	1.94	2.29	0.35	1.61	1.55	-0.06	2.14	2.62	0.48
	Comparison	2.19	2.49	0.30	2.02	2.41	0.39	2.37	2.54	0.16
Educator curriculum implementation support	Treatment	3.14	3.12	-0.03	3.12	2.76	-0.35	3.04	3.30	0.26
	CLI	3.26	3.95	0.69	3.55	3.23	-0.32	2.81	4.40	1.59
	Flamingo	3.53	3.22	-0.31	3.42	2.96	-0.45	3.55	3.35	-0.20
	UMB	2.39	2.56	0.17	1.78	1.91	0.13	2.59	2.87	0.28
	Comparison	2.57	2.95	0.39	2.42	2.71	0.29	2.82	3.25	0.44
Observations of educators	Treatment	2.72	3.24	0.52	2.88	3.29	0.41	2.51	3.02	0.51
	CLI	3.51	3.78	0.27	3.16	2.93	-0.23	3.77	4.76	0.99
	Flamingo	2.71	2.90	0.19	2.45	3.32	0.88	2.74	2.28	-0.46
	UMB	2.32	3.52	1.20	3.94	3.46	-0.49	1.85	3.00	1.15
	Comparison	3.32	3.10	-0.22	2.87	2.46	-0.41	3.75	3.78	0.02
Provision of observation feedback to educators	Treatment	2.36	2.70	0.34	2.44	3.01	0.56	2.08	2.29	0.21
	CLI	2.70	2.72	0.02	2.49	2.40	-0.10	2.64	3.08	0.44
	Flamingo	2.57	2.73	0.16	2.55	3.06	0.51	2.28	2.13	-0.16
	UMB	1.81	2.62	0.81	2.10	3.29	1.19	1.69	2.15	0.46
	Comparison	2.46	2.45	-0.01	2.06	2.16	0.10	2.98	2.84	-0.14
PILS	Treatment	2.22	2.61	0.40	2.29	2.41	0.11	2.03	2.82	0.79
	CLI	2.55	2.47	-0.09	2.60	2.00	-0.60	2.43	2.86	0.43
	Flamingo	2.29	2.57	0.28	2.27	2.43	0.16	2.10	2.70	0.59
	UMB	1.91	2.76	0.86	2.14	2.61	0.47	1.83	2.95	1.12
	Comparison	2.36	2.37	0.01	2.03	2.18	0.15	2.74	2.49	-0.26



APPENDIX C. DATA TABLES

Exhibit C-1. Adjusted Descriptives<sup>25</sup> for Educator Outcomes by ECSO and Cohort

		Cohort 3 + 4 Combined			Cohort 3			Cohort 4		
		Fall (Baseline)	Spring (Outcome)	Pre-Post Difference	Fall (Baseline)	Spring (Outcome)	Pre-Post Difference	Fall (Baseline)	Spring (Outcome)	Pre-Post Difference
<b>Educator Support for Continuous Quality Improvement</b>										
Support for curriculum adaptation	Treatment	58%	65%	0.07	42%	55%	0.14	80%	78%	-0.02
	CLI	64%	72%	0.08	48%	64%	0.16	86%	86%	0.00
	Flamingo	44%	63%	0.19	25%	47%	0.22	73%	85%	0.12
	UMB	67%	59%	-0.08	58%	58%	0.00	82%	64%	-0.19
	Comparison	71%	64%	-0.06	63%	53%	-0.10	81%	85%	0.03
Observation by program leader	Treatment	82%	85%	0.03	84%	88%	0.04	78%	82%	0.04
	CLI	84%	90%	0.06	94%	93%	-0.01	73%	87%	0.14
	Flamingo	77%	82%	0.05	79%	84%	0.05	75%	80%	0.05
	UMB	86%	84%	-0.01	82%	88%	0.06	85%	79%	-0.07
	Comparison	84%	80%	-0.04	88%	84%	-0.05	77%	79%	0.01
Frequency of observation by program leader	Treatment	2.48	2.74	0.26	2.50	2.74	0.25	2.37	2.73	0.36
	CLI	2.77	3.19	0.42	3.00	3.43	0.43	2.44	2.95	0.51
	Flamingo	2.40	2.56	0.16	2.50	2.57	0.07	2.21	2.68	0.47
	UMB	2.27	2.53	0.26	1.88	2.28	0.40	2.48	2.60	0.12
	Comparison	2.50	2.25	-0.25	2.52	2.23	-0.30	2.60	2.31	-0.29
Provision of feedback by program leader	Treatment	88%	92%	0.04	87%	93%	0.06	89%	92%	0.03
	CLI	88%	96%	0.07	85%	100%	0.15	95%	90%	-0.05
	Flamingo	87%	87%	-0.01	88%	84%	-0.05	86%	91%	0.04
	UMB	88%	96%	0.08	87%	97%	0.10	86%	95%	0.09
	Comparison	92%	88%	-0.04	92%	86%	-0.06	94%	94%	0.00
<b>Educator Planning Time</b>										
Received planning time	Treatment	77%	69%	-0.08	78%	68%	-0.10	79%	69%	-0.10
	CLI	84%	64%	-0.21	80%	58%	-0.22	91%	66%	-0.26
	Flamingo	67%	74%	0.07	69%	73%	0.04	67%	74%	0.07
	UMB	83%	70%	-0.13	87%	72%	-0.15	81%	68%	-0.12
	Comparison	77%	81%	0.04	72%	80%	0.08	82%	85%	0.03
<b>Educator Curriculum and Screener/Assessment Use</b>										
Used any curriculum	Treatment	91%	95%	0.04	87%	94%	0.07	79%	94%	0.15
	CLI	92%	94%	0.02	86%	92%	0.05	100%	97%	-0.03
	Flamingo	95%	92%	-0.03	92%	96%	0.04	100%	88%	-0.13
	UMB	86%	97%	0.12	81%	93%	0.12	91%	98%	0.07
	Comparison	90%	89%	-0.01	91%	91%	0.01	86%	85%	-0.01

<sup>25</sup> ‘Adjusted’ means that spring outcome means were calculated controlling for fall scores along with individual- and program-level covariates where applicable; fall baseline means were calculated controlling for covariates.



## APPENDIX C. DATA TABLES

Received support on any curriculum	Treatment	82%	81%	-0.01	78%	78%	0.00	85%	86%	0.00
	CLI	91%	93%	0.02	84%	96%	0.12	99%	88%	-0.11
	Flamingo	85%	69%	-0.16	84%	65%	-0.19	86%	74%	-0.12
	UMB	69%	82%	0.13	63%	74%	0.11	72%	95%	0.23
	Comparison	71%	75%	0.04	73%	77%	0.05	74%	66%	-0.08
Received support on curriculum used	Treatment	68%	69%	0.01	68%	67%	-0.01	68%	73%	0.06
	CLI	75%	80%	0.06	75%	80%	0.05	76%	83%	0.07
	Flamingo	69%	62%	-0.07	71%	62%	-0.10	65%	63%	-0.02
	UMB	62%	67%	0.06	55%	59%	0.04	63%	75%	0.12
	Comparison	61%	63%	0.02	61%	65%	0.04	65%	58%	-0.07
Used any assessment/screener	Treatment	85%	90%	0.05	68%	93%	0.25	87%	85%	-0.02
	CLI	81%	84%	0.03	79%	87%	0.08	81%	77%	-0.03
	Flamingo	85%	91%	0.07	79%	93%	0.14	93%	87%	-0.07
	UMB	90%	95%	0.05	97%	97%	0.00	86%	91%	0.05
	Comparison	91%	87%	-0.03	96%	95%	-0.01	80%	79%	-0.01
Received support on any assessment/screener	Treatment	66%	74%	0.08	59%	75%	0.16	75%	72%	-0.04
	CLI	57%	72%	0.15	51%	81%	0.29	64%	60%	-0.04
	Flamingo	75%	67%	-0.08	64%	63%	-0.01	91%	74%	-0.17
	UMB	63%	83%	0.20	61%	85%	0.24	70%	79%	0.10
	Comparison	80%	78%	-0.02	77%	77%	0.00	79%	82%	0.03
Received support on assessment/screener used	Treatment	57%	62%	0.05	48%	62%	0.14	69%	59%	-0.10
	CLI	46%	55%	0.09	35%	59%	0.24	60%	50%	-0.10
	Flamingo	62%	61%	-0.01	50%	56%	0.07	81%	69%	-0.12
	UMB	60%	69%	0.09	62%	73%	0.12	66%	59%	-0.07
	Comparison	66%	71%	0.05	63%	69%	0.06	65%	79%	0.14
<b>Educator Retention</b>										
Intent to stay in ECE field	Treatment	67%	70%	0.03	64%	70%	0.07	71%	69%	-0.02
	CLI	77%	68%	-0.09	74%	69%	-0.05	76%	67%	-0.09
	Flamingo	55%	69%	0.15	49%	72%	0.23	63%	66%	0.03
	UMB	72%	72%	0.01	71%	70%	-0.01	75%	73%	-0.01
	Comparison	76%	65%	-0.11	72%	61%	-0.12	84%	74%	-0.10
Intent to stay in ECE program	Treatment	61%	67%	0.06	62%	66%	0.04	57%	69%	0.12
	CLI	63%	63%	0.00	67%	58%	-0.09	54%	67%	0.12
	Flamingo	47%	68%	0.21	42%	66%	0.24	53%	71%	0.18
	UMB	75%	70%	-0.05	83%	75%	-0.08	62%	68%	0.06
	Comparison	68%	57%	-0.11	66%	54%	-0.12	82%	62%	-0.20



## Appendix D. Delivered Supports by CLI and EEP

Exhibit D-1. Delivered Supports During First Implementation Year by CLI and EEP

ECSO	EEP (Deidentified)	Cohort	Year 1 Total Leader Hours	Year 1 Leader Coaching Hours	Year 1 Total Educator Hours	Year 1 Educator Coaching Hours
CLI	EEP 1	3	34.50	26.50	242.50	237.50
CLI	EEP 2	3	17.50	13.00	202.00	197.00
CLI	EEP 3	3	27.50	19.50	163.50	158.50
CLI	EEP 4	3	24.50	16.50	136.00	131.00
CLI	EEP 5	3	24.00	18.50	119.25	114.25
CLI	EEP 6	3	21.25	13.25	78.75	76.25
CLI	EEP 7	3	26.50	18.50	61.00	58.50
CLI	EEP 8	3	21.00	19.00	63.00	63.00
CLI	EEP 9	3	25.00	17.00	52.50	47.50
CLI	EEP 10	4	28.00	21.00	144.00	144.00
CLI	EEP 11	4	22.00	21.00	141.00	141.00
CLI	EEP 12	4	26.00	22.00	120.00	120.00
CLI	EEP 13	4	26.00	23.00	91.00	91.00
CLI	EEP 14	4	28.00	23.00	81.00	81.00
CLI	EEP 15	4	23.00	22.00	80.00	80.00
CLI	EEP 16	4	24.00	21.00	61.00	61.00
CLI	EEP 17	4	26.00	17.00	41.00	41.00
CLI	EEP 18	4	29.00	25.00	20.00	20.00
Flamingo	EEP 19	3	56.00	18.00	73.00	18.00
Flamingo	EEP 20	3	60.00	20.00	32.00	5.00
Flamingo	EEP 21	3	61.00	26.00	19.00	0.00
Flamingo	EEP 22	3	61.00	21.00	19.00	0.00
Flamingo	EEP 23	3	61.00	21.00	19.00	0.00
Flamingo	EEP 24	3	57.00	22.00	19.00	0.00
Flamingo	EEP 25	3	57.00	17.00	19.00	0.00
Flamingo	EEP 26	3	60.00	20.00	14.00	0.00
Flamingo	EEP 27	3	51.50	16.50	14.00	0.00
Flamingo	EEP 28	3	54.00	21.00	9.00	0.00
Flamingo	EEP 29	3	53.00	18.00	4.00	0.00
Flamingo	EEP 30	4	94.00	25.00	10.00	0.00
Flamingo	EEP 31	4	74.00	26.00	20.00	0.00
Flamingo	EEP 32	4	72.00	24.00	20.00	0.00
Flamingo	EEP 33	4	71.00	25.00	20.00	0.00
Flamingo	EEP 34	4	75.00	25.00	15.00	0.00
Flamingo	EEP 35	4	71.00	21.00	10.00	0.00
Flamingo	EEP 36	4	71.50	20.50	5.00	0.00
Flamingo	EEP 37	4	66.50	20.50	10.00	0.00
Flamingo	EEP 38	4	59.00	15.00	0.00	0.00
UMB	EEP 39	3	34.00	9.00	0.00	0.00
UMB	EEP 40	3	33.25	9.75	0.00	0.00
UMB	EEP 41	3	28.00	7.50	0.00	0.00
UMB	EEP 42	3	26.50	6.00	0.00	0.00
UMB	EEP 43	3	19.00	1.00	0.00	0.00
UMB	EEP 44	3	15.75	5.25	0.00	0.00
UMB	EEP 45	4	49.50	20.00	0.00	0.00
UMB	EEP 46	4	34.00	14.00	0.00	0.00
UMB	EEP 47	4	29.75	8.25	0.00	0.00
UMB	EEP 48	4	29.50	10.00	0.00	0.00
UMB	EEP 49	4	29.50	10.00	0.00	0.00
UMB	EEP 50	4	27.75	6.25	0.00	0.00
UMB	EEP 51	4	20.25	8.25	0.00	0.00

## Appendix E. 2-Year Impacts in Cohort 3<sup>26</sup>

**Exhibit E-1. Adjusted Descriptives<sup>27</sup> for Leader Impact after 2 Years, Cohort 3 Only**

	Treatment Group Mean	Comparison Group Mean	Impact (Difference)	Standard Error	Relative Impact	p-Value
<b>Confidence</b>						
Average leader confidence	3.85	3.65	0.20	0.30	0.25	0.51
Confidence in reflecting on data collaboratively with staff	3.66	3.23	0.43	0.41	0.39	0.35
Confidence in supporting educators to adapt curriculum	3.90	3.85	0.05	0.35	0.06	0.89
Confidence in planning PLCs for educators	3.41	3.28	0.13	0.36	0.12	0.74
Confidence in providing constructive feedback from observations	4.07	3.87	0.20	0.42	0.18	0.67
<b>Frequency in Leadership Practices</b>						
Collaborative data reflection with educators	1.98	1.79	0.19	0.25	0.30	0.44
Educator child assessment data use support	2.49	2.23	0.26	0.31	0.37	0.40
Educator planning meetings	2.62	2.35	0.27	0.30	0.34	0.37
Educator curriculum implementation support	3.33	3.06	0.27	0.49	0.24	0.58
Observations of educators	2.77	2.96	-0.19	0.46	-0.18	0.68
Provision of observation feedback to educators	2.72	2.29	0.43	0.35	0.47	0.22
PILS	2.62	2.20	0.42	0.21	0.80	0.05

**Exhibit E-2. Adjusted Descriptives<sup>28</sup> for Educator Impact after 2 Years, Cohort 3 Only**

	Treatment Group Mean	Comparison Group Mean	Impact (Difference)	Standard Error	Relative Impact	p-Value
<b>Educator Support for Continuous Quality Improvement</b>						
Support for curriculum adaptation	87%	77%	0.10	0.09	0.46	0.28
Observation by program leader	92%	83%	0.09	0.07	0.47	0.20
Frequency of observation by program leader	2.87	2.61	0.26	0.36	0.29	0.48
Provision of feedback by program leader	89%	98%	-0.09	0.05	-0.66	0.06
<b>Educator Planning Time</b>						
Received planning time	69%	84%	-0.15	0.10	-0.58	0.13
<b>Educator Curriculum and Screener/Assessment Use</b>						
Used any curriculum	96%	96%	0.00	0.03	-0.06	0.86
Received support on any curriculum	93%	79%	0.14	0.06	0.73	0.02
Received support on curriculum used	84%	69%	0.15	0.06	0.67	0.02
Used any assessment/screener	95%	93%	0.02	0.07	0.15	0.77
Received support on any assessment/screener	80%	86%	-0.06	0.08	-0.28	0.44
Received support on assessment/screener used	77%	78%	-0.01	0.09	-0.04	0.91
<b>Educator Plans to Stay</b>						
Intent to stay in ECE field	68%	76%	-0.08	0.08	-0.37	0.34
Intent to stay in ECE program	58%	63%	-0.05	0.08	-0.23	0.55

<sup>26</sup> Leader, educator, and classroom quality outcomes are aggregated to the EEP-level to maintain the largest possible Cohort 3 sample size. Once the full QED is completed with both Cohorts 3 and 4, we will reexamine the example size after two years and determine whether the complete case or program-aggregated samples is more appropriate.

<sup>27</sup> ‘Adjusted’ means that means were calculated controlling for baseline scores along with individual- and program-level covariates where applicable.

<sup>28</sup> ‘Adjusted’ means that means were calculated controlling for baseline scores along with individual- and program-level covariates where applicable.



**Exhibit E-3. Adjusted Descriptives<sup>29</sup> for Classrooms Impact after 2 Years, Cohort 3 Only**

Outcome	Treatment N	Treatment Group Mean	Comparison N	Comparison Group Mean	Impact (Difference)	Standard Error	Relative Impact	p-Value
<b>CLASS (Range = 1-7)</b>								
Average Overall Quality	15	4.99	16	4.89	0.10	0.27	0.12	0.72
Infant Quality	8	6.00	4	4.66	1.34	0.26	1.39	0.00
Toddler Quality	14	4.64	11	4.96	-0.32	0.40	-0.37	0.42
PK Quality	7	4.42	12	4.54	-0.12	0.32	-0.18	0.70
PK Instructional Support Quality	7	2.27	12	2.60	-0.33	0.58	-0.30	0.58
<b>COP/TOP (Range = 0 – 100)</b>								
Listening to Children	22	5%	21	5%	0.00	0.02	0.02	0.95
Instructing Children	22	32%	21	31%	0.01	0.03	0.10	0.76
Demanding Higher-Order Thinking	22	2%	21	1%	0.01	0.01	0.22	0.56
Using Pleasant Tone	22	54%	21	42%	0.12	0.06	0.71	0.04
Children Cooperating	22	11%	21	9%	0.02	0.02	0.36	0.34

**Exhibit E-4. Adjusted Descriptives<sup>30</sup> for Leader Outcomes by ECSO after 2 Years, Cohort 3 Only**

		Fall 2022 (Baseline)	Spring 2024 (Outcome)	Pre-Post Difference
<b>Confidence</b>				
Average Leader Confidence	CLI	3.78	3.50	-0.28
	Flamingo	4.03	4.22	0.19
	UMB	3.26	3.55	0.30
	Comparison	3.73	3.66	-0.07
Confidence in reflecting on data collaboratively with staff	CLI	2.73	3.35	0.62
	Flamingo	3.78	4.07	0.30
	UMB	3.23	3.19	-0.04
	Comparison	3.44	3.26	-0.18
Confidence in supporting educators to adapt curriculum	CLI	4.21	3.68	-0.53
	Flamingo	3.68	4.31	0.63
	UMB	3.20	3.31	0.10
	Comparison	3.90	3.88	-0.02
Confidence in planning PLCs for educators	CLI	3.41	3.19	-0.22
	Flamingo	3.96	3.86	-0.10
	UMB	2.60	2.88	0.29
	Comparison	3.38	3.33	-0.06
Confidence in providing constructive feedback from observations	CLI	4.18	3.57	-0.61
	Flamingo	4.65	4.63	-0.02
	UMB	4.13	3.47	-0.66
	Comparison	3.95	3.85	-0.10
<b>Practices</b>				
Collaborative data reflection with educators	CLI	1.35	1.80	0.45
	Flamingo	1.48	2.20	0.71
	UMB	1.74	1.84	0.10
	Comparison	1.67	1.80	0.13
Educator child assessment data use support	CLI	1.21	2.64	1.43
	Flamingo	1.98	2.13	0.15
	UMB	1.48	2.88	1.40
	Comparison	1.78	2.14	0.36
Educator planning meetings	CLI	2.45	2.42	-0.04
	Flamingo	1.99	2.94	0.95
	UMB	1.70	2.13	0.43
	Comparison	2.05	2.40	0.35

<sup>29</sup> ‘Adjusted’ means that means were calculated controlling for baseline scores along with program-level covariates where applicable.

<sup>30</sup> ‘Adjusted’ means that means were calculated controlling for baseline scores along with individual- and program-level covariates where applicable.



## APPENDIX E. 2-YEAR IMPACTS IN COHORT 3

Educator curriculum implementation support	CLI	3.15	3.92	0.77
	Flamingo	3.29	2.88	-0.41
	UMB	2.07	3.11	1.04
	Comparison	2.72	3.02	0.30
Observations of educators	CLI	2.68	2.98	0.30
	Flamingo	2.51	2.47	-0.04
	UMB	3.55	3.12	-0.44
	Comparison	2.72	2.91	0.19
Provision of observation feedback to educators	CLI	2.06	3.23	1.16
	Flamingo	2.50	2.30	-0.20
	UMB	1.88	2.46	0.58
	Comparison	2.17	2.25	0.08
PILS	CLI	1.91	3.07	1.15
	Flamingo	2.13	2.35	0.21
	UMB	1.97	2.34	0.37
	Comparison	2.27	2.19	-0.08

### Exhibit E-5. Adjusted Descriptives<sup>31</sup> for Educator Outcomes by ECSO after 2 Years, Cohort 3 Only

		Fall 2022 (Baseline)	Spring 2024 (Outcome)	Pre-Post Difference
<b>Educator Support for Continuous Quality Improvement</b>				
Support for curriculum adaptation	CLI	82%	83%	0.01
	Flamingo	89%	85%	-0.04
	UMB	91%	92%	0.01
	Comparison	76%	78%	0.02
Observation by program leader	CLI	94%	96%	0.02
	Flamingo	92%	91%	-0.01
	UMB	82%	80%	-0.02
	Comparison	82%	82%	0.00
Frequency of observation by program leader	CLI	3.31	3.49	0.18
	Flamingo	2.63	2.65	0.02
	UMB	2.62	2.52	-0.10
	Comparison	2.61	2.56	-0.05
Provision of feedback by program leader	CLI	84%	84%	0.00
	Flamingo	82%	86%	0.04
	UMB	100%	99%	-0.01
	Comparison	95%	94%	-0.01
<b>Educator Planning Time</b>				
Received planning time	CLI	75%	51%	-0.24
	Flamingo	63%	76%	0.13
	UMB	89%	87%	-0.02
	Comparison	76%	84%	0.08
<b>Educator Curriculum and Screener/Assessment Use</b>				
Used any curriculum	CLI	96%	97%	0.01
	Flamingo	93%	98%	0.05
	UMB	93%	91%	-0.02
	Comparison	91%	97%	0.06
Received support on any curriculum	CLI	91%	93%	0.01
	Flamingo	83%	92%	0.09
	UMB	53%	86%	0.33
	Comparison	69%	77%	0.08
Received support on curriculum used	CLI	76%	86%	0.09
	Flamingo	69%	85%	0.16
	UMB	43%	71%	0.28
	Comparison	59%	68%	0.09
Used any assessment/screener	CLI	75%	96%	0.21
	Flamingo	82%	95%	0.13
	UMB	89%	85%	-0.04
	Comparison	97%	91%	-0.06

<sup>31</sup> 'Adjusted' means that means were calculated controlling for baseline scores along with individual- and program-level covariates where applicable.





APPENDIX E. 2-YEAR IMPACTS IN COHORT 3

Received support on any assessment/screener	CLI	48%	75%	0.27
	Flamingo	72%	82%	0.10
	UMB	76%	65%	-0.11
	Comparison	69%	83%	0.13
Received support on assessment/screener used	CLI	27%	73%	0.46
	Flamingo	39%	84%	0.45
	UMB	59%	62%	0.03
	Comparison	59%	76%	0.17
<b>Educator Retention</b>				
Intent to stay in ECE field	CLI	84%	59%	-0.25
	Flamingo	47%	73%	0.26
	UMB	76%	88%	0.11
	Comparison	62%	78%	0.16
Intent to stay in ECE program	CLI	73%	55%	-0.18
	Flamingo	37%	54%	0.17
	UMB	80%	88%	0.07
	Comparison	65%	65%	0.01

**Exhibit E-5. Adjusted Descriptives<sup>32</sup> for Classroom Outcomes by ECSO after 2 Years, Cohort 3 Only**

CLASS		Fall 2022 (Baseline)	Spring 2024 (Outcome)	Pre-Post Difference
Average Overall Quality (Range=1-7)	CLI	4.53	4.82	0.28
	Flamingo	4.86	4.75	-0.11
	UMB	5.44	5.48	0.04
	Comparison	4.67	4.78	0.11
Infant Quality (Range=1-7)	CLI	5.35	6.05	0.70
	Flamingo	5.49	6.02	0.53
	UMB	5.58	5.54	-0.04
	Comparison	5.43	4.68	-0.75
Toddler Quality (Range=1-7)	CLI	4.37	4.62	0.25
	Flamingo	4.91	4.49	-0.42
	UMB	5.15	4.68	-0.47
	Comparison	5.19	4.88	-0.31
PK Quality (Range=1-7)	CLI	5.06	4.87	-0.19
	Flamingo	2.88	3.63	0.74
	UMB	5.32	5.37	0.05
	Comparison	3.96	4.47	0.51
PK Instructional Support Quality (Range=1-7)	CLI	3.98	2.20	-1.77
	Flamingo	1.21	1.80	0.60
	UMB	3.81	4.32	0.51
	Comparison	1.59	2.54	0.95
<b>COP/TOP</b>				
Listening to Children (Range=0-100)	CLI	6%	4%	-0.02
	Flamingo	5%	7%	0.01
	UMB	7%	6%	-0.01
	Comparison	5%	5%	0.00
Instructing Children (Range=0-100)	CLI	34%	31%	-0.02
	Flamingo	36%	34%	-0.01
	UMB	32%	26%	-0.06
	Comparison	26%	31%	0.05
Demanding Higher-Order Thinking (Range=0-100)	CLI	0%	1%	0.00
	Flamingo	0%	5%	0.05
	UMB	0%	0%	0.00

<sup>32</sup> ‘Adjusted’ means that means were calculated controlling for baseline scores along with program-level covariates where applicable.



## APPENDIX E. 2-YEAR IMPACTS IN COHORT 3

	Comparison	0%	2%	0.01
Using Pleasant Tone (Range=0-100)	CLI	29%	56%	0.27
	Flamingo	38%	54%	0.16
	UMB	36%	50%	0.14
	Comparison	38%	42%	0.05
Children Cooperating (Range=0-100)	CLI	8%	13%	0.05
	Flamingo	7%	10%	0.03
	UMB	6%	10%	0.04
	Comparison	6%	9%	0.03



## Appendix F. 3-Year Gains in Cohort 2<sup>33</sup>

Exhibit F-1. Raw (Unadjusted) Gain in Leader Outcomes after 3 Years, Cohort 2 Only

		N	Fall 2021 (Baseline)	Spring 2024 (Outcome)	Pre-Post Difference
<b>Confidence</b>					
Average Leader Confidence	ECSO Overall	12	3.75	4.09	0.33
	CLI	5	3.55	3.87	0.32
	Flamingo	4	3.94	4.23	0.29
	UMB	3	3.78	4.27	0.49
Confidence in reflecting on data collaboratively with staff	ECSO Overall	12	3.73	3.83	0.11
	CLI	5	3.88	3.60	-0.28
	Flamingo	4	4.00	3.88	-0.13
	UMB	3	3.17	4.17	1.00
Confidence in supporting educators to adapt curriculum	ECSO Overall	12	4.00	4.21	0.21
	CLI	5	4.13	4.40	0.28
	Flamingo	4	3.75	4.00	0.25
	UMB	3	4.17	4.17	0.00
Confidence in planning PLCs for educators	ECSO Overall	12	3.61	3.96	0.34
	CLI	5	3.25	3.30	0.05
	Flamingo	4	4.00	4.50	0.50
	UMB	3	3.58	4.33	0.75
Confidence in providing constructive feedback from observations	ECSO Overall	12	n/a <sup>a</sup>	4.42	
	CLI	5	n/a	4.40	
	Flamingo	4	n/a	4.25	
	UMB	3	n/a	4.67	
<b>Frequency in Leadership Practices</b>					
Collaborative data reflection with educators	ECSO Overall	10	2.09	2.40	0.31
	CLI	5	2.25	2.20	-0.05
	Flamingo	3	2.00	2.00	0.00
	UMB	2	2.00	3.50	1.50
Educator child assessment data use support	ECSO Overall	10	2.25	2.60	0.35
	CLI	5	2.38	2.70	0.33
	Flamingo	3	2.25	2.00	-0.25
	UMB	2	2.08	3.25	1.17
Educator planning meetings	ECSO Overall	10	2.61	2.40	-0.21
	CLI	5	2.63	2.60	-0.02
	Flamingo	3	2.50	2.00	-0.50
	UMB	2	2.75	2.50	-0.25
Educator curriculum implementation support	ECSO Overall	10	3.20	3.10	-0.10
	CLI	5	3.13	3.40	0.28
	Flamingo	3	2.75	3.00	0.25
	UMB	2	3.92	2.50	-1.42
Observations of educators	ECSO Overall	10	2.44	3.05	0.61
	CLI	5	2.88	3.50	0.63
	Flamingo	3	2.00	3.00	1.00
	UMB	0			
Provision of observation feedback to educators	ECSO Overall	10	2.31	2.85	0.54
	CLI	5	2.75	3.40	0.65
	Flamingo	3	1.88	2.67	0.79
	UMB	0			
PLS	ECSO Overall	10	2.46	2.65	0.18
	CLI	5	2.81	2.70	-0.11
	Flamingo	3	2.11	2.80	0.69
	UMB	0			

<sup>a</sup> This question was not included in the Year 2 survey.

<sup>33</sup> Leader, educator, and classroom quality outcomes are aggregated to the EEP-level to maintain the largest sample size possible. Means are not covariate adjusted given the small sample sizes.



**Exhibit F-2. Raw (Unadjusted) Gain in Educator Outcomes after 3 Years, Cohort 2 Only**

		N	Fall 2021 (Baseline)	Spring 2024 (Outcome)	Pre-Post Difference
<b>Confidence</b>					
Observation by program leader	ECSO Overall	14	81%	86%	0.05
	CLI	7	81%	92%	0.11
	Flamingo	2	50%	88%	0.38
	UMB	5	93%	77%	-0.17
Frequency of observation by program leader	ECSO Overall	14	2.45	2.50	0.05
	CLI	7	2.64	2.75	0.11
	Flamingo	2	1.50	2.13	0.63
	UMB	5	2.57	2.31	-0.26
Provision of feedback by program leader	ECSO Overall	14	94%	94%	0.00
	CLI	7	93%	100%	0.07
	Flamingo	2	100%	88%	-0.13
	UMB	5	93%	87%	-0.06
<b>Educator Planning Time</b>					
Collaborative data reflection with educators	ECSO Overall	14	54%	71%	0.17
	CLI	7	64%	63%	-0.01
	Flamingo	2	0%	88%	0.88
	UMB	5	60%	76%	0.16
<b>Educator Curriculum and Screener/Assessment Use</b>					
Used any curriculum	ECSO Overall	14	90%	93%	0.03
	CLI	7	100%	100%	0.00
	Flamingo	2	67%	88%	0.21
	UMB	5	90%	85%	-0.05
Received support on any curriculum	ECSO Overall	14	80%	86%	0.07
	CLI	7	88%	92%	0.04
	Flamingo	2	67%	88%	0.21
	UMB	5	75%	78%	0.03
Received support on curriculum used	ECSO Overall	14	73%	80%	0.07
	CLI	7	88%	86%	-0.02
	Flamingo	2	67%	88%	0.21
	UMB	5	55%	68%	0.13
Used any assessment/screener	ECSO Overall	14	93%	95%	0.02
	CLI	7	95%	94%	-0.01
	Flamingo	2	100%	100%	0.00
	UMB	5	87%	94%	0.08
Received support on any assessment/screener	ECSO Overall	14	80%	77%	-0.03
	CLI	7	81%	76%	-0.05
	Flamingo	2	67%	63%	-0.04
	UMB	5	87%	84%	-0.03
Received support on assessment/screener used	ECSO Overall	14	71%	67%	-0.04
	CLI	7	62%	60%	-0.02
	Flamingo	2	67%	63%	-0.04
	UMB	5	87%	80%	-0.07
<b>Intention to stay in the field</b>					
Intent to stay in ECE field	ECSO Overall	14	78%	59%	-0.19
	CLI	7	79%	62%	-0.17
	Flamingo	2	100%	63%	-0.38
	UMB	5	69%	55%	-0.15
Intent to stay in ECE program	ECSO Overall	14	77%	54%	-0.23
	CLI	7	71%	56%	-0.15
	Flamingo	2	100%	63%	-0.38
	UMB	5	76%	49%	-0.27

**Exhibit F-3. Raw (Unadjusted) Gain in Classroom Outcomes after 3 Years, Cohort 2 Only**

	Fall 2022 (Baseline) <sup>a</sup>	Spring 2024 (Outcome)	Pre-Post Difference
<b>Average Overall Quality (Range=1-7)</b>			
Treatment	4.85	4.88	0.03
CLI	4.92	5.15	0.23
Flamingo	4.82	5.34	0.52
UMB	4.82	4.18	-0.64
<b>Infant Quality (Range=1-7)</b>			
Treatment	5.05	5.23	0.18
CLI	5.11	6.62	1.51
Flamingo	4.91	5.04	0.13
UMB	5.16	4.44	-0.72
<b>Toddler Quality (Range=1-7)</b>			
Treatment	4.60	4.64	0.04
CLI	4.76	5.18	0.42
Flamingo	4.14	5.15	1.01
UMB	5.01	3.70	-1.31
<b>Preschool Quality (Range=1-7)</b>			
Treatment	4.91	4.86	-0.05
CLI	4.90	4.79	-0.11
Flamingo	5.41	5.82	0.41
UMB	4.30	4.26	-0.04
<b>Preschool Instructional Support Quality (Range=1-7)</b>			
Treatment	3.26	3.44	0.18
CLI	3.27	3.05	-0.22
Flamingo	4.02	5.03	1.01
UMB	2.29	2.78	0.49

<sup>a</sup> Fall 2022 CLASS observations were conducted by ECSOs, whereas Spring 2024 CLASS observations were conducted by trained data collectors hired by Abt.