



**Department of
Early Education and Care**



The Commonwealth of Massachusetts

Thomas L. Weber, Commissioner

Report on the federal Preschool Expansion Grant

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51 Sleeper St. 4th Floor Boston, MA 02210

Phone: 617-988-6600 • Fax: 617-988-2451 •

www.mass.gov/eec

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I. Purpose of Report

This report satisfies the requirement set forth in the Fiscal Year 2018 General Appropriations Act, line item 3000-6025, that the Department of Early Education and Care (EEC) report to the joint committee on education on the status of the Massachusetts Preschool Expansion Grant program, including but not limited to: summer assessment data of Preschool Expansion Grant students, classroom observation data and qualitative data from program leadership, staff and parents.

II. Executive Summary

In December 2014, the Massachusetts Department of Early Education and Care (EEC) was one of 18 states awarded a federal Preschool Development Grant and one of 13 such grants that focused specifically on preschool expansion. The federal Preschool Expansion Grant (PEG) program provided \$60 million to Massachusetts to expand preschool in five high need communities for four years. The \$15 million annual award provides free preschool for approximately 850 four year-old children across Boston, Holyoke, Lawrence, Lowell, and Springfield each year. These children receive full-day, full-year preschool through public-private partnerships between the local education agency (LEA) and two or three local EEC-licensed early learning providers (ELPs). The Preschool Expansion Grant (PEG) programs opened in September 2015 and are funded until August 2019. The public school districts are granted the funds from EEC and are subcontracting with the ELPs for the direct services they provide to children and families in the community. The ELPs provide the preschool classrooms, and the LEAs work with the ELPs on the selection and implementation of curriculum, coordination and provision of comprehensive services, family engagement supports, and inclusive services for special populations, as well as joint professional development. Table A shows the grants to each community, the number of children being served each year and the local EEC-licensed ELPs.

Table A: Distribution of the Preschool Expansion Grant (PEG) by Community

Lead Agency	Children Served	Local EEC-Licensed Early Learning Providers
Boston Public Schools \$4,061,250	250/year	YMCA of Greater Boston, Nurtury, Action for Boston Community Development (ABCD) Head Start, Wesley, Boys and Girls Club, Paige, Ellis Memorial, Catholic Charities (Nazareth and Yawkey).
Holyoke Public Schools \$1,425,000	78/year	Valley Opportunity Council, Holyoke-Chicopee-Springfield Head Start (HCSHS)
Lawrence Public Schools \$2,351,250	129/year	Community Day, Greater Lawrence Community Action Program
Lowell Public Schools \$2,850,000	156/year	Community Teamwork, Inc., Little Sprouts
Springfield Public Schools \$3,562,500	195/year	Square One, HCSHS, YMCA of Greater Springfield

PEG Outcomes

The primary goals of these partnerships are to build collaboration locally between early education private providers and public school districts, create high quality and supportive prekindergarten programs staffed by highly qualified and well compensated educators and expand access to such opportunities to children likely to enter kindergarten without prior early education experiences. By these measures, the Preschool Expansion Grant (PEG) program has shown strong success in its first two completed years of operation. Programs are currently in the middle of the third year of operations.

Expansion of Access and Support for School Success

PEG programs demonstrated good success in enrolling low income children not previously enrolled in any early education program.

- Across all PEG programs, 70 percent of children enrolled had no previous early education experience, as a result of ineligibility for EEC-subsidized child care vouchers; a need for full time, rather than the half day program provided by the public school; or a lack of awareness of preschool opportunities. However, in some communities like Holyoke, Lowell and Lawrence, these numbers were close to 100 percent.
- Additionally, 36 percent of enrolled children reported speaking a language other than English at home, with Lawrence and Lowell serving particularly large numbers of dual language learners.

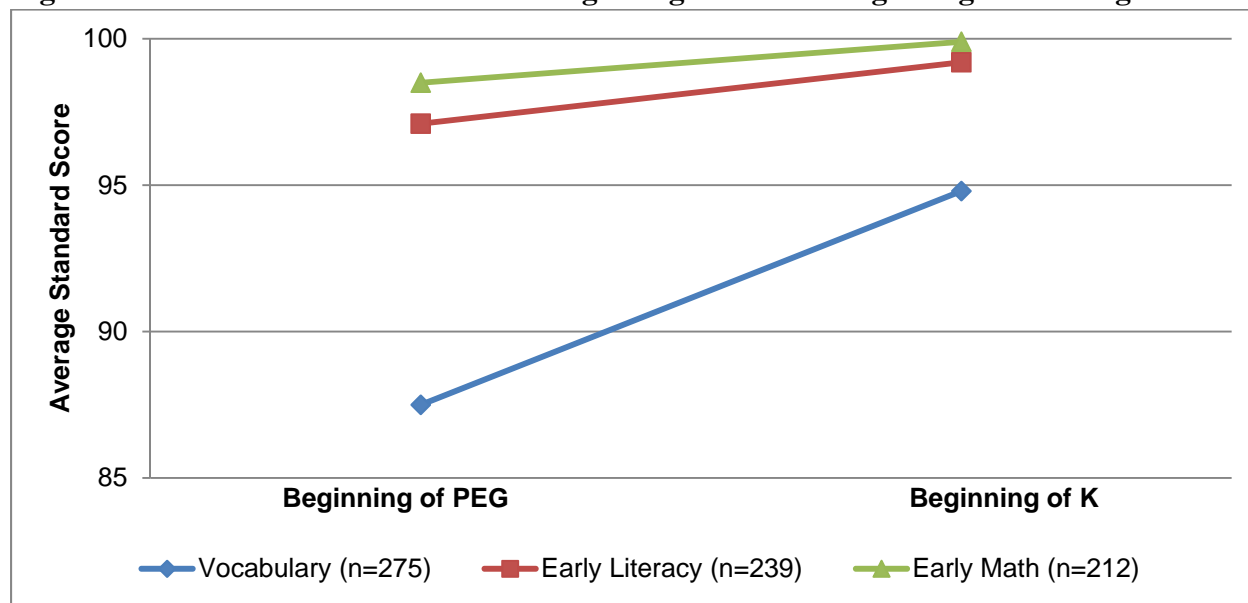
As result, PEG programs have successfully expanded access to high quality prekindergarten for children who are likely to benefit greatly from the program and start kindergarten with better school readiness than without such a program.

The child outcomes reflect the success that PEG has had in serving these children well.

- Across standardized measures of English vocabulary and letter/ word recognition skills, children who participated in the PEG program demonstrated significant growth in standard scores, reflecting more growth than seen in a nationally representative sample of preschool aged children (used to standardize the assessment scoring). On average, they ended the year with literacy and math skills that were on par with this sample (reflected in a standard score of 100).
- The greatest gains were seen in English vocabulary growth. Children began the PEG program much farther below the expected skill level for English vocabulary than in other skills, a result reflective of the large numbers of dual language learners being served. The PEG program significantly closed the gap in vocabulary skills.
- Teachers also rated children in the PEG program at expected levels of social skills and behavior development across the PEG year, on average.

Overall, the children who participate in the PEG program are entering kindergarten with a strong preparation for success.

Figure A: 2016-17 PEG Children from Beginning of PEG to Beginning of Kindergarten



Note. This graph represents averages only; not all children increased their skills over time, but the majority did. To interpret changes in standard scores over time:

Local Collaboration

Each community was required to create leadership structures that include membership from the public school district staff and EEC-licensed programs and support collaborative decision making by all partners. While this process has been structured differently by each grantee, opportunities exist for collaborative decision making, conversations about local alignment and reflections on implications of successes and challenges to ongoing programming decisions. In particular, the collaborative leadership have focused attention on the following:

- Considering how to improve access to prekindergarten for all children locally and best integrate the PEG program into larger, somewhat fragmented, local systems of early education, including:
 - Organizing outreach to families not currently served by the early education system; and
 - Building a referral system, which in some cases leverages the public school kindergarten registration resources.
- Identifying key points of alignment to ensure a smooth transition to Kindergarten, including:
 - Aligning curriculum and developing shared expectations for kindergarten readiness;
 - Building opportunities for conversations between PEG teachers and kindergarten teachers about classroom structures and expectations;
 - Coordinating information sharing between PEG teachers and kindergarten teachers about individual children; and
 - Supporting parents through the process of kindergarten enrollment and transition.
- Engaging in continuous quality improvement by reviewing program data and making responsive program adaptations.

High Quality Classrooms

PEG programs have invested heavily in their educators, providing multiple professional learning opportunities, including coaching, and ensuring salaries are commensurate with the public schools. Classrooms are often staffed with three teachers each to provide flexibility to engage in job-embedded professional development and ongoing planning and communication with families, as well as lower child-teacher ratios for much of the day. In return for these investments, programs have hired educators with strong qualifications (all Lead Teachers have a Bachelor's degree and 23 percent have a Master's degree) and expect high levels of engagement in the professional learning opportunities and responsibilities outside the classroom, such as connecting with families. The classroom quality results reflect the early return on these investments.

- In Year 1 (2015-2016) and Year 2 (2016-2017), PEG classrooms demonstrated strong levels of quality on two standardized observational measures, comparable to or better than other large scale early education programs.
- More significantly, these classrooms demonstrated growth in quality between Year 1 and 2 on two important dimensions of quality, classroom organization and emotional support. Measures of instructional quality showed early signs of growth as well, but these were not consistent across communities.

Classroom quality will continue to be measured each year of the PEG program to better understand the extent to which these investments pay off over time. The development of instructional skill is the most challenging area of growth for early education teachers and one that is increasingly a focus of PEG professional supports. Teacher retention will also be tracked, as high levels of retention are essential to ensuring that the professional investments pay off. Early reports from Year 3 (2017-2018) suggest that three of the five communities have not seen any lead teacher turnover in the third year; an improvement over the 77 percent return rate seen in Year 2.

Family Supports

PEG programs were deeply committed to working with families and provided many supports to them, including home visits, multiple family events, opportunities to engage with PEG staff, case management and targeted mental health and behavioral supports (both to children directly and to support teachers who work with particular children and families).

- Most of the PEG programs have one staff person dedicated to family engagement and support. As extensive outreach has been necessary to engage some of the harder to reach families, having PEG staff to go door to door has been essential. These staff often serve as the first point of contact for families with the program.
- PEG programs have used multiple opportunities to reiterate to families the importance of having children regularly attend school. Comparison of children's attendance from Year 1 to Year 2 showed a drop in absentee rates from 9 to 7 percent.

- PEG programs also report an increasing focus on building parents' capacity for supporting their child's healthy growth and development, either through communication about the curriculum, home supports for children, or English classes and job skills training for parents.
- PEG programs report serving groups of families facing multiple challenges such as homelessness, job loss, isolation and mental health issues that require intensive intervention. Every program has powerful stories about the ways families have been connected to resources at a critical time in their lives.

The PEG programs indicate confidence that they have identified preschool models that are likely to achieve their goals for children, families and educators. At the same time, as children who attended in past years move on to kindergarten and first grade, programs are turning attention to understanding the ongoing school success of PEG graduates and considering implications for continued program development.

III. Grant Overview

In December 2014, the Massachusetts Department of Early Education and Care (EEC) was one of 18 states awarded a federal Preschool Development Grant and one of 13 such grants focused on preschool expansion. The Preschool Development Grants are a discretionary federal grant program that is jointly administered by the U.S. Department of Education and the U.S. Department of Health and Human Services. These grants support states in (1) building or enhancing their infrastructure to provide high-quality preschool programs (referred to as Preschool Development Grants) and (2) expanding high-quality preschool programs in high-need communities (referred to as Preschool Expansion Grants - Massachusetts' category). Each state grantee uses their funds in a unique way to expand state-funded high-quality preschool.

Massachusetts' approved application proposed working with five communities in these efforts to expand high-quality early childhood education to four-year-old children whose families earn under 200 percent of the federal poverty line. In applying for this funding, EEC noted, "Our most vulnerable families include those living with limited income, some in deep multi-generational poverty, whose daily lives are characterized by significant housing instability, health and mental health needs, nutrition challenges and the now well-known impact of chronic trauma, toxic stress and adverse childhood experiences. Our military, refugee and immigrant families also face many of these same challenges. For all of these populations with young children, access to high-quality preschool represents both a common need and an immensely effective public policy to stabilize the family and advance both child and parent well-being." The efforts to expand state-funded prekindergarten as reflected in the Preschool Expansion Grant (PEG) program represents a recognition that "the overall third grade reading performance is troubling enough, with 43% of children scoring below proficient, but the performance of low-income children is even more alarming with a staggering 61% below proficiency. Massachusetts can, and must, do more to engage and support children, especially vulnerable populations, during the critical years preceding kindergarten."

Five high-need communities in Massachusetts -- Boston, Holyoke, Lawrence, Lowell, and Springfield -- have been funded to implement full-day, full-year preschool for four-year-olds through public-private partnerships between the local education agency (LEA) and two or three local EEC-licensed early learning providers (ELPs). The public school districts are granted the funds from EEC and are subcontracting with the ELPs for the direct services they provide to children and families in the community. While only ELPs are running the PEG funded classrooms, the LEAs are working with the ELPs around the selection and implementation of curriculum, coordination and provision of comprehensive services, family engagement supports, and inclusive services for special populations, as well as joint professional development.

EEC has completed its second year (2016–17) of overseeing the programs funded by the federal Preschool Expansion Grant (PEG), providing resources to 48 classrooms in five communities

across Massachusetts - Boston, Holyoke, Lawrence, Lowell and Springfield. The local education agencies (LEAs) and EEC-licensed early learning providers (ELPs) in each community worked collaboratively to design preschool programs that leverage local resources, are provided by the ELPs and supported by the LEA and began implementation in September 2015. Each community has a Head Start program as one of the ELPs, in addition to other community based programs that serve preschool children. The current plan provides space for approximately 850 children in 48 classrooms with services provided by 12 ELPs across the five communities. Children are determined eligible for the program if they are:

- Four-years-old and eligible for kindergarten in the following September
- Family income is below 200 percent of the federal poverty line

All the communities, except Boston, limited initial enrollment to children who had never before attended any formal early childhood education program. In Boston programs extended the day and school year schedule while improving the quality of services for children they were already serving. Grant amounts were established based on the number of children each community proposed to serve. The first cohort of children to attend PEG-funded programs graduated in August 2016 and are now in first grade. The second cohort began attending these programs in September, 2016 and entered kindergarten in the 2017-2018 school year.

Table 1. Summary of Distribution of the PEG grants

LEA/Award	Children Served	Local EEC-Licensed Early Learning Partners (ELPs)
Boston Public Schools \$4,061,250	250/year	YMCA of Greater Boston, Nurtury, Action for Boston Community Development (ABCD) Head Start, Wesley, Boys and Girls Club, Paige, Ellis Memorial, Catholic Charities (Nazareth and Yawkey).
Holyoke Public Schools \$1,425,000	78/year	Valley Opportunity Council, Holyoke-Chicopee-Springfield Head Start
Lawrence Public Schools \$2,351,250	129/year	Community Day, Greater Lawrence Community Action Program
Lowell Public Schools \$2,850,000	156/year	Community Teamwork, Inc., Little Sprouts
Springfield Public Schools \$3,562,500	195/year	Square One, Holyoke-Chicopee-Springfield Head Start, YMCA of Greater Springfield

EEC has contracted with Abt Associates to perform a multi-component, longitudinal evaluation of the use of PEG funds in Massachusetts, which includes four main components:

- an implementation study of quality components in PEG programs
- a longitudinal study of outcomes for PEG children and families
- an impact study of effects on children and families, and
- a cost study.

The evaluation is designed help EEC to learn from the communities implementing the PEG grant, support quality improvement at the local level, and inform decisions about sustaining and expanding programs and policies developed through this grant. Through the use of surveys and interviews, Abt detailed the programmatic supports provided to teachers and examined the services provided by the family support staff in each program. In the spring of 2017, Abt conducted classroom observations to measure the quality of child-teacher interactions, and the supports provided for the development of language and literacy skills. Children's language, literacy, math and executive function skills were assessed at the beginning of the PEG program and the beginning of the following Kindergarten year. EEC staff also interviewed PEG program staff about the structure and effectiveness of collaboration processes in the summer of 2017, as part of ongoing program monitoring.

Expanding on the federal Preschool Development Grant requirements, EEC identified a set of quality requirements for the PEG programs. The Year 1 evaluation report identified that all of the required elements were implemented in the first year of the program, although a fair amount of variation in the extent of implementation were seen across the communities.

Components of quality that were fully implemented were as follows:

- All programs were in operation on a full-day, full-year schedule (at least 8 hours/day, 12 months/year);
- A maximum class size of 20 and maximum child-teacher ratio of 10:1 were maintained, and many classrooms were staffed with three teachers bringing ratios even lower;
- Teaching Strategies Gold® was used as a formative assessment tool;
- At least one educator in each classroom had a bachelor's degree in a relevant field; and
- All lead teachers were paid salaries commensurate with those of comparable positions in the public schools, including many assistant teachers.

Other components of quality showed variation in implementation across communities, including:

- A curriculum aligned with the Massachusetts Common Core Standards and EEC Standards and Guidelines was used, although the specifics of the choice and extent of the alignment across the community varied by grantee.

- Each grantee engaged in many efforts to communicate and connect with families. In four of the communities, each program had at least one dedicated family support coordinator to organize these activities.
- Comprehensive services (including vision and hearing screenings, and referrals to services addressing health, mental health, and behavior) were provided to families and children as needed.
- Programs were committed to serving children with IEPs and those requiring other supports (e.g., children without permanent homes, dual language learners (DLLs), refugee or immigrant families, etc.). Coordination of these services became an area of focus in Year 1.
- Efforts have been made to build links with services for children from birth to age 3 (e.g., early intervention or home visiting services), as well as supports for the transition to Kindergarten. In Year 1, programs focused on outreach to families to encourage enrollment and support for early kindergarten enrollment.
- All programs plan to achieve a level 4 rating in the Massachusetts Quality Rating and Information System (QRIS) or National Association for the Education of Young Children (NAEYC) accreditation and granted level 3 QRIS rating by the end of the four year grant period. Most programs were new and began as Level 1 programs as a result and demonstrated progress towards achieving higher levels in Year 1.
- In all communities, professional development was coordinated among ELPs and with the support of LEAs.

The report that follows focuses on program implementation in Year 2 (2016-2017) and draws from the PEG Year 2 implementation findings¹ as well as information gathered by EEC as part of the EEC's programmatic monitoring of LEAs (through enrollment data and leadership interviews). Reports from Abt Associates of the program costs and impacts on children's end of prekindergarten school readiness skills will be available in the spring of 2018.

IV. Community Collaborations

Each PEG community has been required to put structures in place for communication and collaboration among the public school districts and the community-based EEC-licensed early education and care programs. These collaborations are expected to support program design, coordination of program activities and funding, and coordinated decision-making among the LEA and participating EEC-licensed programs. The LEA in each community is responsible for managing the funds and monitoring the use of funds to meet the programmatic requirements of the grant. In the PEG model, the classrooms are run by the EEC-licensed early education and care

¹ Goodson, B., Checkoway, A., Hofer, K., Watt, R., Yudron, M. & Acevedo, M. (2017). Year 2 Massachusetts Preschool Expansion Grant (PEG) Evaluation Report. Abt Associates: Cambridge, MA.

program, rather than the public school districts. Instead, each LEA identified particular supportive services, such as professional development, that they provide. In this role, each LEA has hired one or two people to coordinate the PEG grant and to manage the collaboration among partners.

In all PEG communities, the primary mechanism for this collaboration was the creation of a steering committee with representation from the LEA and each EEC-licensed provider. In some communities, multiple subcommittees were formed to ensure communication at different levels of leadership, such as subcommittees of executive management and of center directors, as well as those planning for particular programmatic requirements of the grant, such as family engagement supports, curriculum choices, and professional development activities.

The collaborative decision making that has resulted has been important in the following areas:

- Considering how to improve access to prekindergarten for all children locally and integrating the PEG program into any local enrollment systems; they have also considered how best to reach families and manage referrals. In some communities the public school has used their kindergarten registration resources to manage such a system.
- Identifying key points of alignment to ensure smooth transition to kindergarten; these include aligned curriculum, familiarity with kindergarten expectations, conversations between PEG teachers and kindergarten teachers about classroom structures and expectations, and information to share with kindergarten teachers. They have also coordinated information sharing with parents about kindergarten enrollment and transition.
- Engaging in continuous quality improvement; these groups provide a platform to review program data and make decisions about program adjustments in response. Such efforts should build stronger and more consistent programming locally over time, although more support is needed to ensure that this work continues, as kindergarten and first grade data becomes available for review.

After two years of implementations, the basic structure of the program and the roles of each partner have become fairly well defined. Management structures are in firmly in place and include the following components:

- **Executive management** – Boards or steering communities that include the executive leadership of the EEC-licensed programs and district staff meet quarterly in Boston and Lowell. In Lawrence, executive management is convened on an as-needed basis.
- **Program management** – Steering committees or management teams staffed by the program managers in each agency meet monthly in all communities. In Holyoke and Springfield, executive managers are included in these meetings when issues are being discussed that require their attention.

- **Director meetings** – In Boston, the directors meet monthly. As the program has matured, Boston Public Schools has increasingly used these opportunities to provide technical support to the directors in order to build their capacity as instructional leaders. In Lawrence, the directors meet monthly with each other and the public school district’s Early Childhood Director, who also coaches PEG teachers, to discuss program implementation.
- **Subcommittees** – In Lowell and Springfield, subcommittees are convened monthly for ongoing planning of particular program components, such as professional development and family engagement/ comprehensive services supports. These groups are staffed by program directors, other program and district staff working on these issues (such as coaches and family support staff) and PEG managers from all agencies. Other communities include these topics as part of other standing management meetings.
- **Superintendent- Commissioner Meetings** – EEC’s Commissioner meets with the Superintendent of each community and the program leadership once a year to discuss lessons learned and plans for the future.
- **Monitoring** – Each public school district conducts a programmatic and fiscal monitoring visit to every program twice a year. EEC then conducts a similar visit with the public school districts once a year, reviewing their program management and their monitoring processes and findings.

Descriptions of the program model in each community follow.

Boston

- The PEG collaboration built off prior efforts on the part of Boston Public Schools (BPS) to expand the use of the BPS prekindergarten curriculum to local, community-based providers (the Boston K1 in Diverse Settings (K1DS) model)
- Expansion of the Boston K1DS model, with the addition of programmatic enhancements such as family engagement and comprehensive services, to three EEC-licensed ELPs (Action for Boston Community Development (ABCD), Nurtury and the YMCA of Greater Boston).
- As part of this planning process, the decision was made to blend PEG funding with subsidy funds from EEC or Head Start funds, while focusing on improving the quality and extending hours of programs and classrooms that currently existed.
- Blended funding allowed additional ELPs to be funded (Boys and Girls Club, Catholic Charities, Ellis Memorial, Paige Academy and Wesley were selected to provide additional PEG classrooms).
- BPS provides curricular materials, professional development, and coaching to PEG teachers. Each EEC-licensed provider manages the family supports and comprehensive services relatively independently, although monthly director meetings allow for sharing of best practices.

Holyoke

- Two EEC-licensed ELPs (Valley Opportunity Council (VOC) and Holyoke Chicopee Springfield Head Start) oversee four PEG classrooms located in Holyoke Public School (HPS) buildings, with each ELP responsible for one classroom in each school.
- HPS provides coaching and coordinates a larger initiative focused on building early literacy community-wide (Holyoke Early Literacy Initiative or HELI).
- PEG classrooms have been a key component of the larger plans for the preschool expansion in the community through the partnership of the public schools and EEC-licensed organizations.
- PEG teachers participate in professional learning communities with public preschool and kindergarten teachers.
- Each ELP manages the family engagement and comprehensive service efforts independently and supplements the professional development provided by HPS.

Lawrence

- Two EEC-licensed ELPs (Greater Lawrence Community Action Council (GLCAC) and The Community Group) opted to each start new programs that each run independently in Lawrence.
- Lawrence Public Schools (LPS) manages enrollment for the PEG classrooms and leads efforts to increase alignment with public school kindergarten classrooms, and transition to kindergarten activities through Lawrence Learns.
- During the course of the first year of PEG, the two ELPs began to consider possibilities for greater alignment and decided to use the same curriculum starting in the second year, a change that also led to more coordinated professional development and coaching. Subsequently, consultation with Lawrence Public Schools led one ELP to choose a new curriculum better aligned with the elementary curriculum.

Lowell

- Lowell Public Schools (LPS) and its EEC-licensed partners, Little Sprouts and Community Teamwork, decided to open one new early childhood center jointly run by the two PEG-funded ELPs.
- Although the two ELPs maintain separate licenses from EEC for the classrooms, the program has been viewed as one entity and decisions have been highly collaborative across the ELPs.
- All program components have been aligned and are jointly managed by the two programs in collaboration with LPS.
- LPS provides coaching and coordinated supports with other district departments as needed.

Springfield

- Springfield Public Schools (SPS) purchased a building to serve as an early childhood center, where PEG classrooms run by three EEC-licensed ELPs (Holyoke Chicopee Springfield Head Start, YMCA of Greater Springfield and Square One) are co-located with other SPS Prekindergarten and Early Head Start classrooms. Each ELP also opened classrooms located within one or two of their other existing sites across the city.
- All PEG classrooms use the same curriculum as the public school prekindergarten classrooms, and SPS provides professional development and coaching focused on the curriculum and effective instructional practice.
- Each ELP manages the family engagement supports and comprehensive services provided to children and families in their classrooms, although monthly management meetings for all ELPs help bolster efforts to align these supports.
- SPS has also funded an occupational therapist, a speech pathologist and a behavioral specialist to consult with PEG teachers and provide additional comprehensive service supports.

Implications of Community Collaborations

Each community has maintained a great deal of autonomy in designing the PEG programs, and, as evidenced by the descriptions above, organized their programs in very different ways. The role of EEC has been to set expectations-- through the PEG quality criteria -- monitor implementation and budgeting, and provide technical assistance as needed.

Opportunities for Collaboration

Although each community has organized their structures differently, all have created regular opportunities for EEC-licensed program and public school leadership -- from program directors to executive directors -- to come together to address issues as they arise. Interviews with program staff during EEC's program monitoring revealed that these meetings, although time consuming, were essential for information sharing and relationship building. It has also been noted that due to the complexity of the collaborations and the intensity of the planning for effective programming, strong facilitation is critical to collaborative decision making. Data, both from the evaluation and from program level data collection, helps to focus decision making within local collaborations as does a shared sense of commitment to ensuring that *all* children in the community have access to prekindergarten and preparation for success in kindergarten.

Communication

Communication at all levels within and across organizations was reported as essential, so that all leaders understand and consistently implement decisions, and program staff see how their work contributes to the goals of the program. While the program can be run well without the involvement of executive level leadership for much of the time, their participation becomes essential to strategic decisions about future directions of the program, particularly discussions of

sustainability plans. For programs without such regular opportunities, initiation of sustainability planning has led to efforts to re-engage with higher levels of management.

Monitoring

Program monitoring is also essential to ensure responsible fiscal and programmatic management. The district staff play a key role in monitoring their EEC-licensed subgrantees, while EEC directly monitors the districts and oversees their subgrantee monitoring. Although this structure has been effective in identifying and correcting fiscal and administrative challenges, it has also been time consuming for the districts and required the development of new policies and procedures, as well as the tapping of fiscal expertise not originally funded by the grant. Public school staff report a sense of conflict in their obligation to both monitor the programs and facilitate the collaboration.

The Role of EEC

EEC has played the role of guiding communities, providing technical assistance and, when necessary, facilitating local planning efforts. Staff participate in most local meetings and frequently consult with program staff about issues as they arise. EEC staff also conduct the monitoring review of each district and the yearly review and approval of program plans and budgets for the next grant year. This level of engagement has allowed EEC to ensure programs are in compliance with grant expectations, develop a deep knowledge of local decision making, contribute to program planning when guidance was necessary, and facilitate difficult conversations, while maintaining enough distance that community leadership is able to exercise autonomy in decision making.

V. Supports for children and families

Children and Families

In the 2016-17 school year, PEG programs successfully enrolled children from low-income families, the majority of whom had not had any prior early education experience (70 percent). Despite the option of enrolling children from families with incomes up to 200 percent of the Federal poverty line (\$49,200 for a family of four in 2017), the mean PEG family income reported as part of the enrollment process was about \$20,000 dollars per year. (Sixty-eight percent of families report incomes lower than the 2017 federal poverty level for a family of four, \$24,600). The demographics of these classrooms varied by community, but overall the programs served large percentages of minorities and dual language learners (see Table 2).

Table 2: Race/Ethnicity and Home Language, Overall PEG and by Community

Race/Ethnicity	Number and Percentage of Children											
	PEG Overall		Boston		Holyoke		Lawrence		Lowell		Springfield	
Caucasian—non-Hispanic	51	6%	5	2%	0	0%	0	0%	29	18%	15	9%
Hispanic	412	52%	70	27%	59	92%	130	99%	47	29%	106	63%
Black	219	28%	161	61%	0	0%	1	1%	20	12%	37	22%
Asian-American	68	9%	9	3%	0	0%	0	0%	59	36%	6	4%
Two or more races	20	3%	7	3%	0	0%	0	0%	7	4%	6	4%
Other	18	2%	9	3%	5	8%	0	0%	0	0%	0	0%
Primary Home Language												
English	444	56%	184	70%	50	78%	26	20%	49	30%	135	80%
Spanish	218	28%	40	15%	14	22%	104	79%	31	19%	29	17%
Khmer	39	5%	0	0%	0	0%	0	0%	39	24%	0	0%
Other ^a	87	11%	38	15%	0	0%	1	1%	43	27%	5	3%

^a Other common languages included Cape Verdean, Chinese, and Haitian Creole (Primarily in Boston), and Portuguese, Vietnamese, and Arabic (primarily in Lowell).

Notes: Data obtained from EEC data for all 48 PEG classrooms during the fall, 2016.

Percentages may not add up to 100 because numbers are rounded to the nearest whole.

Enrollment

Enrollment in PEG programs has largely stabilized in Year 2 and 3. Across the state, 908 children were served in Year 2 and the total number of children served in every community exceeded enrollment expectations. In Year 3, Lowell and Lawrence reported opening the program with full classrooms and Holyoke completed enrollment shortly after the program opened. At the same time, enrollment of families without prior early education continues to be a challenge in Springfield; enrollment only stabilized in December when the program began serving families recently emigrated from Puerto Rico. Enrollment data collected by programs suggest that many families in Springfield cycle in and out of early education programs, leading to many families being deemed ineligible despite a need for early education. In Boston, continued expansion of the public school prekindergarten program across Boston has led to under-enrollment in some of the programs, which had been full in the past.

- Each community also continues targeted outreach and recruitment efforts through collaborations among local partners, and all have reported that personal connections made

through individual face to face interactions with families are the most effective recruiting tool. As a result, family engagement staff report spending the majority of their time in the fall conducting outreach. Additionally, families in PEG programs have often proven to be transient; programs report they frequently have lost as many children as they enrolled in any given month. Enrollment data submitted to EEC in June confirms ongoing child turnover in four of the five communities. These findings are not surprising, as PEG programs have made efforts to engage the highest need families through their outreach, and report seeing high levels of unemployment and underemployment, housing instability and mental health and physical problems, issues that can lead families to move frequently and encounter periodic challenges in ensuring regular program participation.

Attendance

Attendance is a continual challenge for a subset of families in the PEG program, resulting, in part, from the challenges described above. Although absentee rates, when adjusted to allow 10 days of vacation time, were reported as 7 percent on average across communities, 76 percent of children had rates higher than 10 percent and 20 percent had rates higher than 27 percent. Programs continue to message the importance of consistent attendance through communications from teachers and from family engagement staff. Improvements in attendance from Year 1 have been noted, when adjusted mean absentee rates were 9 percent over the year. However, 48 percent of teachers identify absenteeism as a “moderate” or “serious” problem in Year 2 and programs continue to intensify efforts to communicate the importance of attendance to families.

Services for Families

A primary requirement of the PEG funding has been implementation of approaches to engage with families and provide comprehensive services. Although programs varied in the ways they provided these services, most programs have employed staff whose primary focus is working with PEG families and have instituted home visiting, volunteer and learning opportunities for parents, and screening and referrals for children and families.

Family Engagement

The majority of PEG programs (25 out of 28 centers - in Boston some smaller programs did not include this position) had a family support coordinator who organized group parent engagement activities and provided case management to PEG families. Programs continued to offer a robust set of opportunities for family engagement, including home visits. In Year 2, community and program leadership made efforts to increase the level of supports for families and to introduce more intentionality in the focus of the supports. Overall, family engagement was perceived as an area of improvement by a majority (65 percent) of program directors and PEG programs reported focusing on building parents’ capacity to support their child’s learning, development, and safety. A high proportion of teachers (74 percent) reported participation in home visits, which raises the potential that deeper connections are being made between the classroom and the home.

The following positive changes were reported for PEG family support efforts during Year 2:

- Increased number of programs with dedicated family support staff and enhanced coordination in family support services across programs;
- Increased consistency of individual contact with families through parent-teacher conferences with all families;
- New strategies to build connections among parents and engaging parents about their child's learning and development in the classroom;
- Parent education opportunities based on parent needs through enhanced partnerships with local agencies;

Comprehensive Services

In Year 2, as in Year 1, PEG offered comprehensive services to families through a combination of program, district and referral-based staff. Family support specialists reported being more intentional and proactive in their planning for comprehensive services in Year 2 and noted that stronger relationships with the parents translated into better services for the families. It appeared that in Year 2, PEG programs more consistently linked parents and children to a range of health and social services and provided more services directly at the programs, especially mental health support services. PEG programs also increased their ability to link families to material supports, such as food and clothing and transportation.

In general, family support specialists identified a high need for services among PEG families, and most challenges for families were directly related to the families' lack of income. The reported challenges include:

- Unemployment, housing and transportation.
- In two communities, specialists reported that increased numbers of families were facing homelessness or having to double up with other family members.
- Many PEG families lived in neighborhoods with high levels of violence.
- Some PEG families struggled with mental health and physical health problems.
- In two of the communities, family support specialists described families as having increased fears about deportation, which negatively impacted the families' willingness to get involved with the program.

Special Education Referrals

Coordinating special education referrals is an area of the grant where programs faced challenges in Year 1. The grant requires that PEG programs serve the same percentage of four year olds with special education needs as the state average (6.9 percent in Massachusetts). However, in a context with a long history of identifying and serving three and four year olds with special needs through inclusive preschool classrooms, the requirement in four communities that disqualified children with prior preschool experiences has impeded efforts to ensure equal representation of the special education population in PEG classrooms. Therefore, the numbers of children with Individualized Education Plans (IEPs) in these programs largely reflects children who were identified and referred during the PEG prekindergarten year. In particular, center directors noted the following issues with the process and practices surrounding inclusion:

- The high demand for services can slow down the referral and evaluation process;
- Understanding when it is appropriate to make a referral and the complexity of the IEP process was challenging for educators in PEG classrooms;
- Teachers felt that public school teachers had more resources for working with children with special education needs, such as support for determining when to refer and in implementing accommodations in a child's IEP; and
- Coordination with parents during the IEP process could also be difficult. Center directors noted that parents were sometimes distrustful of the IEP process or did not agree that their child might have a developmental delay or disability.

In recognition of these challenges, public school coordinators have made efforts to bring special education staff to PEG leadership meetings and ensure that time is given to discussing the problems programs are facing. In Year 2, public school staff have been tasked with working with PEG programs around the referral process, ensuring timely referrals and a deeper understanding of ways to support children with IEPs. Additionally, public school staff have referred children with special needs they feel would benefit from the PEG program.

In Year 3, programs are focusing on ways to better support teachers in using inclusive practices and differentiating instruction in all PEG classrooms through coaching and other professional learning opportunities. However, it is important to recognize that these new approaches are a direct result of the relationships built through the PEG collaboration and the additional resources available to cover staff costs. Grantees are also participating in the *Building Inclusive Communities Series*, a joint professional learning opportunity through the Department of Early Education and Care and the Department of Elementary and Secondary Education, creating a platform for networking and planning for inclusion at the local level.

VI. Teachers and Teacher Supports

PEG communities have developed strong models for supporting early educators as professionals. Increased compensation and, in most communities, a stable three teacher per classroom model contribute to the retention of PEG educators and increased opportunities to improve classroom quality over time through cohesive, job embedded professional supports. The thoughtful engagement of program leadership has been critical to the development and implementation of supports for educators, especially as it relates to the integration of content across professional learning opportunities such as training, coaching and peer learning.

Expectations and Supports for Teachers

Compensation

The teachers working in PEG classrooms were relatively well-educated and well compensated (as required by the grant). Across the five PEG communities, the lead teacher salaries ranged from \$54,000 to \$71,000, with an average of \$54,246 in Year 1. Some programs have identified ways to include cost of living increases, but the level funding of the grant has made it challenging for programs to keep pace with public school salaries. For comparison, in Massachusetts, Head Start teachers are paid \$28,078 on average, and child care teachers \$24,980, while Kindergarten teachers average \$67,170². These salaries bring PEG teachers' compensation more in line with compensation of public school teachers and, unlike Head Start and childcare teachers, raises salaries above the levels likely to make them eligible for public assistance benefits (i.e. SNAP income eligibility for a family of three is \$26,124/ year).

Teacher qualifications

In Year 2, one lead teacher in every classroom had at least a bachelor's degree, and in some cases two teachers did, and almost all had multiple years of experience as early childhood teachers. Of note, compared to Year 1, in Year 2, more PEG non-lead teachers had a bachelor's degree, and more non-lead teachers were concurrently enrolled in higher education (Table 3). The level of education of PEG lead teachers is higher than that reported nationally for programs serving disadvantaged preschool children; nationally 45 percent of center-based teachers and caregivers serving children ages 3–5 had a bachelor's degree or higher³. It is also higher than the 30 percent that was recently reported for center-based teachers in Massachusetts⁴.

² U. S. Department of Education (2016). *Troubling pay gap for early childhood teachers* [Fact sheet]. Retrieved from <http://www.ed.gov/news/press-releases/fact-sheet-troubling-pay-gap-early-childhood-teachers>

³ National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE)*. OPRE Report #2013-3. Washington DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁴ Marshall, N. L., Dennehy, J., Johnson-Staub, C., & Wagner-Robeson, W. (2005). *Massachusetts Capacity Study: Characteristics of the current early education and care workforce serving 3-5 year olds*. Wellesley, MA: Center for Research on Women, Wellesley College.

Table 3. Characteristics of PEG Teachers, 2015-16 and 2016-17

	Lead Teachers				Non-Lead Teachers			
	Year 1 (n = 39)		Year 2 (n = 41-47)		Year 1 (n = 32-33)		Year 2 (n = 33-38)	
	n	%	n	%	n	%	n	%
Highest level of education								
High school degree	0	0%	0	0%	10	31%	12	32%
Two-year degree/vocational degree	0	0%	2	4%	16	50%	15	39%
Bachelors	30	77%	33	72%	5	16%	10	26%
Masters	9	23%	11	24%	1	3%	1	3%
Race/Ethnicity								
White Non-Hispanic	Not collected		18	44%	Not collected		10	30%
Black Non-Hispanic			9	22%			9	27%
Hispanic			9	22%			10	30%
Other			5	12%			4	13%
Preschool teaching experience								
1-2 years	3	8%	10	24%	7	21%	12	38%
3-5 years	12	31%	14	34%	14	42%	11	34%
6-10 years	12	31%	8	20%	5	15%	3	9%
More than 10 years	12	31%	9	22%	7	21%	6	19%
Fluency in Spanish								
Spanish	10	26%	11	24%	15	45%	12	32%
Taking classes/Working other job								
Currently taking classes	8	21%	10	22%	14	42%	23	61%

Classroom Staffing

PEG classrooms generally were staffed with one lead teacher and two assistants, or an assistant and an aide. Although a more expensive model than the traditional two teachers per classroom, it has proven essential to providing professional learning opportunities for teachers. Programs have been able to more easily maintain required teacher-child ratios when teachers need to leave for training, curriculum planning time or coaching. Programs also report that the low child-teacher ratios support increased opportunities for small group and one on one engagement with children.

Professional Development

A primary set of supports provided to teachers in the first year of PEG were professional development opportunities. PEG districts and programs were allowed to design their own professional development opportunities, which could vary in intensity and topics covered. At the same time, PEG communities were encouraged to collaborate in and align professional development activities and approaches across all participating agencies. Leadership in all PEG communities spend a great deal of time planning and coordinating professional supports for communities, allowing the community to leverage the capacity and expertise of many skilled educators. The classroom quality data provided in Year 1 has shaped the focus of professional supports in Year 2; all communities have focused coaching and other supports around some of the dimensions that needed improvement community-wide, most often related to curriculum implementation and instructional practice. Shared language to describe quality instruction drawn from classroom observation tools has often facilitated the joint professional learning of educators from different systems (i.e. public school and EEC-licensed programs) and has shaped professional supports provided to teachers in public school classrooms.

In the second year of PEG implementation, programs continued to maintain highly-educated teaching staff and provided training, coaching by local school district staff, and some formal release time for teacher planning.⁵ Responding to challenges identified in Year 1, PEG districts and programs increased the alignment across the different forms of professional learning (i.e., training and coaching) and the coherence of the professional learning, classroom curriculum, and assessments. PEG districts and programs also expanded the professional learning opportunities for non-lead teachers, often focusing on working with teaching teams, although in most cases non-lead teachers still received fewer supports than lead teachers. Districts and programs continued to face challenges with providing professional supports focused on the instruction of special needs children. The following improvements were noted in the implementation evaluation:

- ***Training.*** Compared to Year 1, in Year 2, PEG lead and non-lead teachers received, on average, more training. Also, the differential in the amount of training between lead and non-lead teachers that was identified in Year 1 narrowed in Year 2. The content of training in Year 2 was more focused on topics driven by the needs of teachers and was integrated in training throughout the year.
- ***Coaching.*** Nearly all lead and non-lead teachers reported receiving coaching in Year 2, and the proportion of teachers who received coaching was higher than in Year 1. In both years, most coaching was provided by PEG public school coaches. The focus of coaching has become more targeted, often supporting teachers in the improvement of instructional practice.
- ***Release time for planning.*** In Year 2, more lead teachers reported having formal release time for instructional planning, although the majority still reported that the amount of release time was not sufficient to complete their job responsibilities.

⁵ In Year 1, only four of five communities provided PEG coaching.

Teacher Attitudes

In general, PEG teachers were satisfied with their jobs, with 95 percent of lead teachers feeling that they have made progress on student readiness for Kindergarten and having high levels of appreciation for the expectations, classroom curriculum and coaching (see Table 4). Despite the significantly higher pay teachers are making than they would in other EEC-licensed programs, only 50 percent are satisfied with their salary, suggesting teachers may be aware of the continued differences in compensation when compared to public school teachers. Additionally, only 65 percent of teachers felt program administration was supportive; PEG director support of teachers is an area in which EEC is supporting program improvement in Year 3.

Table 4: Teacher Satisfaction with Aspects of the PEG Program Viewed as Important, 2016-17^a

<i>I am satisfied with...</i>	Lead Teachers (n = 44)		Non-Lead Teachers (n = 33)	
	n	%	n	%
Your student readiness for kindergarten/progress made	42	95%	29	88%
Classroom curriculum	37	84%	26	79%
Knowing what is expected of you	37	84%	24	73%
Having a coach	33	75%	24	73%
Useful, interesting professional development	28	64%	27	82%
Your salary	22	50%	16	48%

^a Teacher satisfaction with the six aspects of their jobs that over 80% of teachers rated as important.

PEG teachers also expressed a high level of confidence in their ability to work with students.

- All teachers agreed they made a significant difference in students' lives and that they were successful at reaching even the most difficult students (99 and 94 percent respectively "agree" or "very strongly agree") and these number were an increase from Year 1.
- Additionally, PEG lead teachers generally felt confident communicating with parents about the program and children's progress; 98-100 percent of teachers felt "somewhat" or "definitely" confident that they could express concerns and communicate about the program and a child's progress with parents.

Teacher satisfaction also showed some relationship with the amount of professional learning supports teachers received, with the most consistent positive trends found for more coaching and planning time (as shown in Figure 2 and 3).

- For training, teachers who reported the most training had higher average job satisfaction compared to teachers with moderate and low levels of training. However, the small group of teachers who reported the fewest hours of training also had similarly high job satisfaction, which does not follow the general upward trend.

- For coaching, the teachers with the least and the most hours of coaching had higher satisfaction ratings. The relationship of satisfaction to frequency of coaching showed a more consistent upward trend in job satisfaction (Figure 2).
- For hours of paid release time, the teachers with higher levels of paid release time (6 or more hours a week) reported higher job satisfaction compare to teachers with fewer hours (Figure 3). There was no difference in job satisfaction among teachers who had a few hours of release time and those with no release time.

Figure 2: Teacher Job Satisfaction by Frequency of Coaching Received, 2016-17

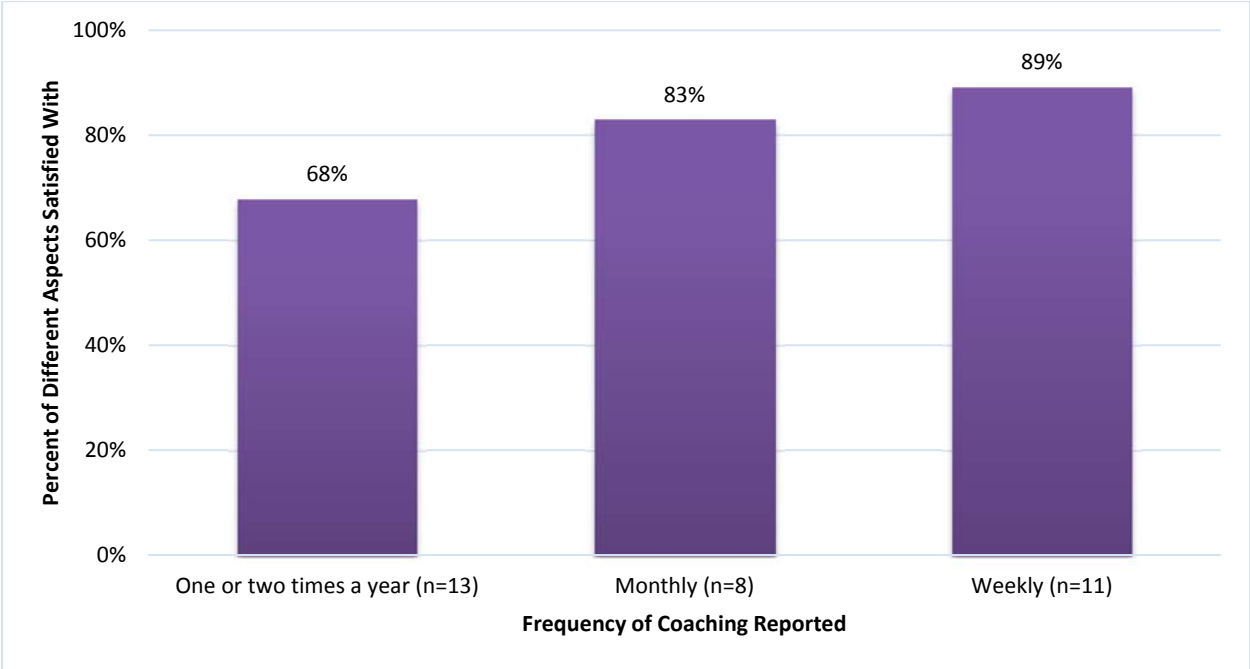
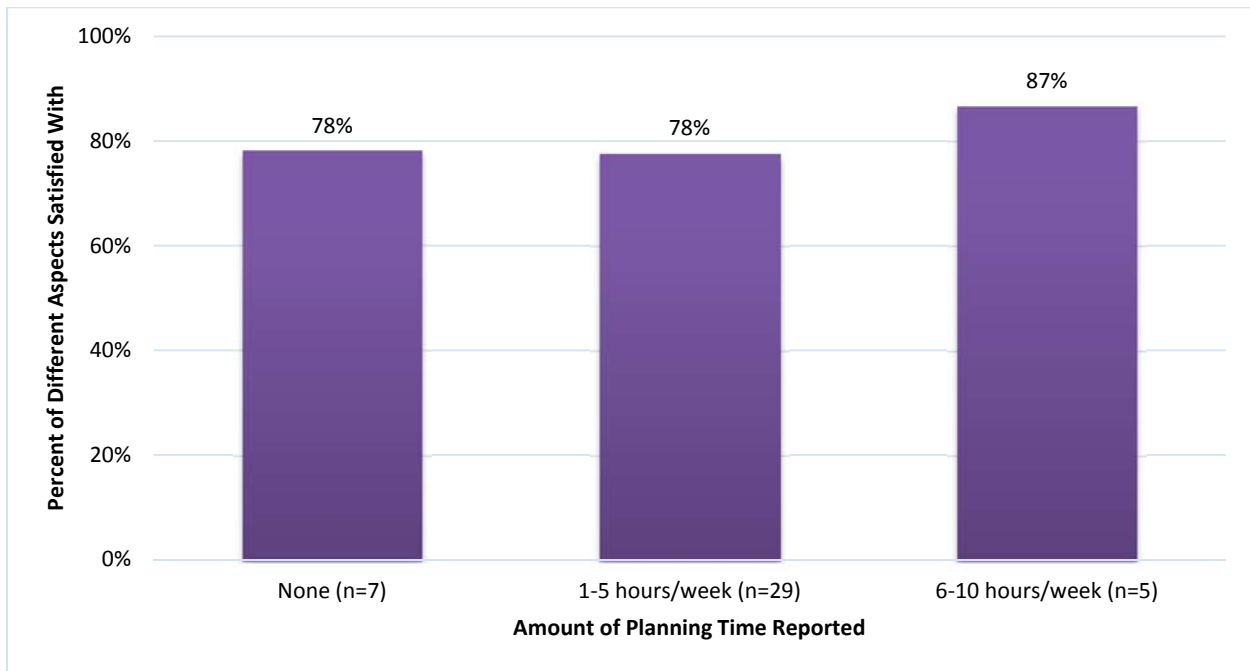


Figure 3: Teacher Job Satisfaction by Amount of Paid Release Time, 2016-17



Overall, these results point to key components of a program that yield confident and satisfied teachers:

- Good salary (preferably on the same scale as the public school)
- High levels of support for professional growth through coaching and paid planning time
- Strong administrative support

As communities have developed their models of professional supports, the following essential characteristics of professional development have been identified by programs:

- Implementation of effective professional learning requires intensive planning and collaboration across partners and includes program directors, coaches and administrators.
- A clear, and well integrated focus for professional supports is necessary and all supports, including coaching and training should be aligned around this focus.
 - Classroom observation tools and shared curriculum can provide a unified focus.
 - Professional learning opportunities should engage the full teaching team, when possible.
 - Program leadership must also be involved in professional learning and must have clear roles in supporting the educators with implementation.
- Important features of professional learning include:
 - Well aligned trainings and opportunities for collaboration among teachers
 - Planning time with supports for differentiated instruction and integrating high quality teacher-child interactions.

VII. Program Outcomes

PEG programs have demonstrated good success at implementing high quality prekindergarten classrooms that have prepared children well for kindergarten during the first two years of operation. The results of the impact evaluation to be released in the spring will further inform our understanding of the effects of these programs on children's school success.

Classroom Quality

A primary mechanism by which PEG programs are expected to support children's school readiness is through the quality of teacher-child interactions and supports for children's development that exist in the classroom.

The study team conducted classroom observations for 5 hours over one day each in all 48 PEG classrooms in February and March 2016. Trained and reliable observers were in the classroom from the start of the school day until children began naptime (generally 8 a.m. – 1 p.m.), and used two structured observation measures.

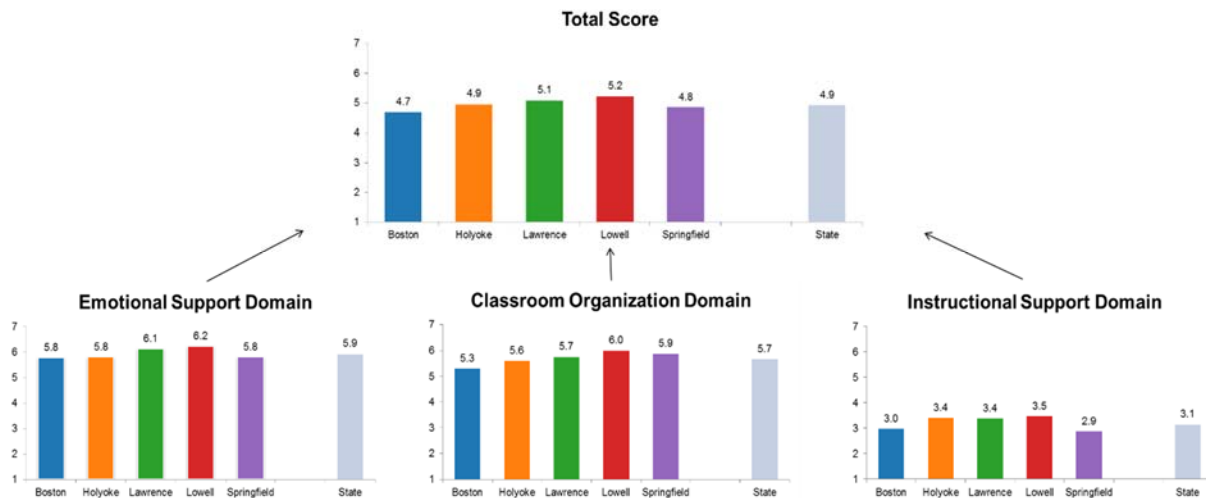
The structured observation measures included:

- **Classroom Assessment Scoring System for Pre-K (CLASS;** Pianta, La Paro, & Hamre, 2008). The CLASS measures overall instructional quality with a focus on interactions among teachers and students in the classroom. Each item score ranges from 1 to 7. A score of 1–2 is described as “low” quality in that aspect of teacher-child interaction. Scores of 3–5 are described as “moderate,” and scores of 6–7 are described as “high” quality.
- **Early Language and Literacy Classroom Observation Pre-K (ELLCO;** Smith, Brady, & Anastasopoulos, 2008). The ELLCO captures more in-depth information on the quality of support for language and literacy development, including support for diversity of languages, abilities, and cultures. Each item score ranges from 1 to 5, with the highest scores described as “exemplary.”

PEG Classroom Quality from Year 1 to Year 2

- For the Classroom Organization domain, the average CLASS score across all PEG classrooms rose from 5.2 to 5.7. Substantially more classrooms were rated as high quality on this domain in Year 2 (75 percent) than in Year 1 (40 percent). In addition, the average Year 2 score overall was significantly higher than the average Year 1 score.
- For the Emotional Support domain, the Year 2 score was more similar to the Year 1 score (5.9 vs. 5.7), but the proportion of classes rated as high quality increased from 60 percent to 80 percent. The average Year 2 score was significantly higher than the average Year 1 score.
- For the Instructional Support domain, though the proportion of classes rated as moderate quality increased slightly from 75 percent to 79 percent, the average score remained relatively unchanged from 2016 to 2017 (3.2 to 3.1).

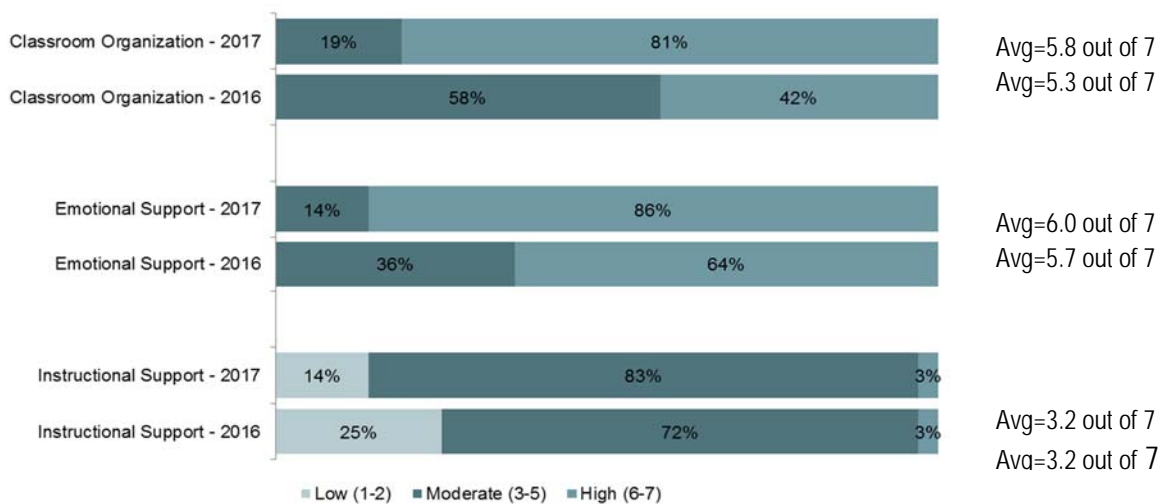
Figure 4: CLASS Average Total and Domain Scores by PEG Community and PEG Statewide, Winter 2017 (n = 48 classrooms)



^a Boston=15, Holyoke=4, Lawrence=10, Lowell=8, Springfield=11

The extent to which improved scores from 2016 to 2017 reflected development over time in teachers who were there for both years as opposed to different samples of teachers was also examined. As already noted, the majority of lead teachers were retained in PEG classrooms from Year 1 to Year 2. Excluding new teachers from the analysis, the distribution of scores showed improvement on all three domains (Figure 5).

Figure 5. Percentage of PEG Classrooms in Different Quality Categories by CLASS Domain, Winter 2017 and Winter 2016, Classrooms with Same Teacher in 2016 and 2017 (n = 36 classrooms^a)



^a Boston=9, Holyoke=4, Lawrence=8, Lowell=6, Springfield=9

For most dimensions, the vast majority of PEG classrooms fell in the moderate to high quality end of the scale (see Figure 5). However, measures of the quality of particular interactions between teachers and children known to support language, literacy and conceptual development, showed far fewer instances of very high quality interactions and more instances of low quality, suggesting some important areas for improvement. To put these findings in context, we note that these types of interactions tend to be more challenging for teachers to master and often yield lower scores (see Figure 6 for comparisons from other programs).

The quality of instruction in PEG classrooms, on average, is comparable to quality recently reported for other preschool programs serving low-income children in Massachusetts. Two recent studies of preschool classrooms in Massachusetts also examined classroom quality using the CLASS and ELLCO. One study reported on 115 observations of preschool classrooms that served four year old children and participated in the Massachusetts⁶ QRIS. A second study examined public school and community-based preschool programs that participated in the Boston KIDS program, the predecessor to PEG in Boston⁷.

Average scores in the PEG classrooms were higher than the average scores reported for both the samples of QRIS programs and the KIDS community-based classrooms (this community-based sample included most of the programs currently funded by PEG in Boston). Compared to the BPS prekindergarten classrooms assessed as part of the KIDS evaluation, PEG classrooms received higher average scores on ELLCO Classroom Environment and lower average scores on CLASS Instructional Support and CLASS Classroom Organization. Average scores on the ELLCO Language & Literacy Subscale and CLASS Emotional Support were similar (Figure 6). Additionally, when PEG CLASS scores are compared to those most recently reported by Head Start (in 2015 Emotional Support - 6.03, Classroom Organization - 5.82, Instructional Support - 2.88), PEG classrooms are comparable although slightly lower on Emotional Support and Classroom Organization, but higher on Instructional Support⁸.

The findings on classroom quality suggests that PEG classrooms are providing a relatively high quality of teaching, but there is still work to do to identify which professional learning opportunities will significantly strengthen instructional quality (e.g., support for teachers to provide more individualized instruction, promote higher order thinking skills and the use of rich dialogue). This challenge is not unique to PEG as this domain tends to be lower and the hardest

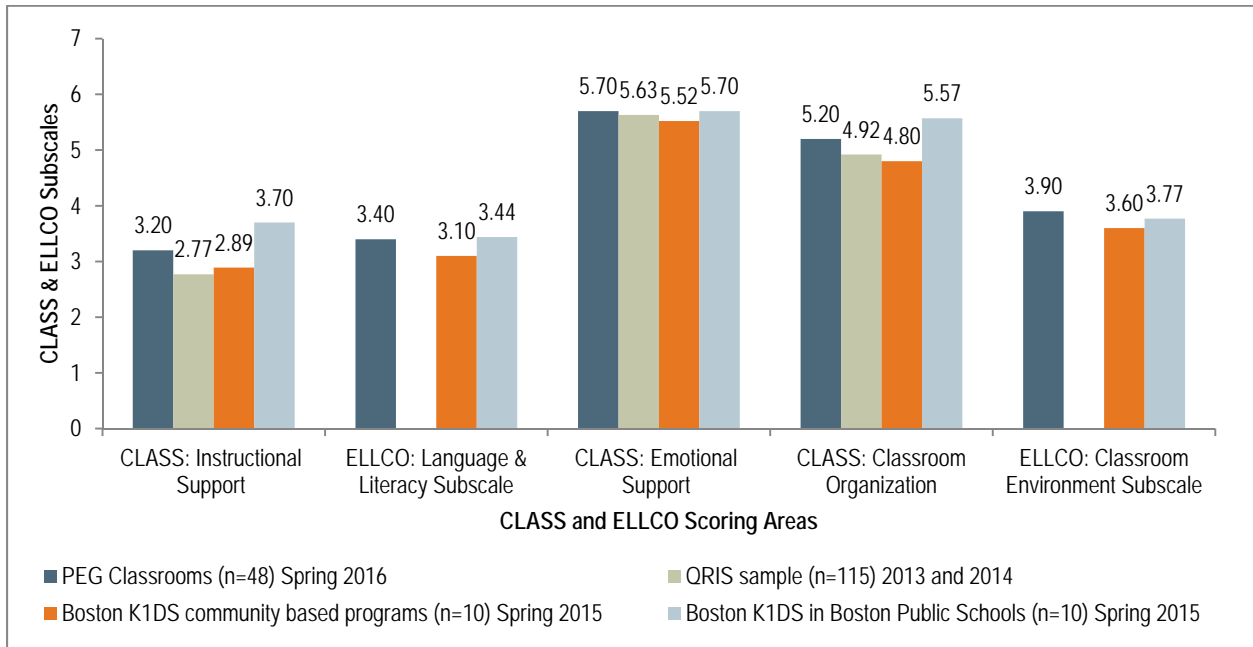
⁶ Dahlke, K., Tucker, N., Weinberg, N., Reese, K., Chernoff, J., Chamorro, A., ... Flanagan, K. (2014). *Race to the Top—Early Learning Challenge Grant: Validation of Educator Competency Study 2014 Annual Report*. Massachusetts Department of Early Education and Care.

⁷ Yudron, M., & Weiland, C. (2016). *BPS KIDS: Piloting the Boston Public Schools' prekindergarten model in community-based organizations*. Retrieved from: http://bpsearlychildhood.weebly.com/uploads/1/0/1/3/10131776/bpsk1ds_final_report_feb2016_11.pdf

⁸ Head Start Early Childhood Learning and Knowledge Center. (2016). A national overview of grantee CLASS scores in 2015. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/class-reports/class-data-2015.html>

to improve in the broader early childhood literature. In response to this challenge, PEG instructional leaders are engaging educators in more targeted professional learning opportunities on an individual and program level through coaching, collaborative learning communities, and training on effective instructional strategies. Four of the five communities are integrating these topics in the context of the curriculum, primarily through lesson planning support with classroom teaching teams.

Figure 6. Comparison of Average Classroom Quality CLASS AND ELLCO Scores, PEG versus Other Massachusetts Preschool Cohorts



READS AS: Researchers observed that PEG classrooms received an average score of 3.1 for instructional support based on the CLASS ratings, which was higher than classrooms in the QRIS sample and the Boston K1DS community-based programs, but lower than Boston K1DS in Boston Public Schools.

SAMPLE: N=48.

SOURCE: PEG Classroom Observations (Winter 2016) using the CLASS-PreK and the ELLCO.

Kindergarten Readiness

The primary goal of the PEG program is to support Kindergarten readiness in all children. The decision to target programming to children without any prior early education experience was made, in part, to address the challenges public schools in the five communities have reported in serving high numbers of children without any prior preschool experience and with associated limitations in their school readiness. At the beginning of the second year of PEG implementation (September-November 2016) and again at the beginning of these children's kindergarten year (September-November 2017), the research team measured academic performance, using three nationally normed assessments to understand children's letter-word recognition skills, math skills, and receptive vocabulary development.

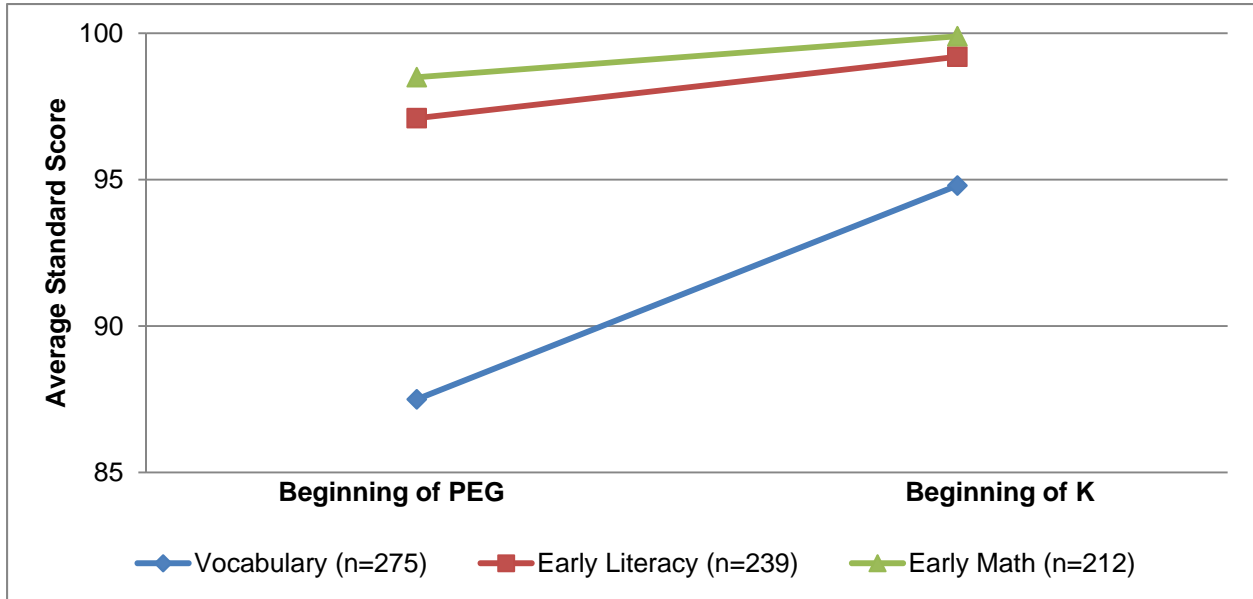
Data collectors trained by the evaluation team conducted individual assessments using standardized measures of early math, early literacy, and vocabulary. Each of the standardized tests of academic skills is normed such that a standard score of 100 represents the performance of an average student at this age (based on a nationally representative sample of children from all socioeconomic groups). The standardized assessment measures included:

- **Early Math:** Woodcock-Johnson III Tests of Cognitive Abilities: Applied Problems Subtest;
- **Early Literacy:** Woodcock-Johnson III Tests of Cognitive Abilities: Letter-Word Identification Subtest; and
- **Vocabulary Comprehension:** The Peabody Picture Vocabulary Test.

Overall, PEG children showed growth in all skills measured with these standardized assessments, on average, reflecting more growth over a year than seen in the nationally representative norming sample of preschool children, and age-appropriate skills at the beginning of kindergarten in math and letter-word recognition. PEG children began the prekindergarten year demonstrating substantially smaller English vocabularies than those in the nationally representative sample, an unsurprising finding given the high percentage of English Language Learners in this sample. Encouragingly, the gap in vocabulary skills narrowed significantly by the fall of Kindergarten.

The results in Figure 1 show the change in scores on the three standardized assessments from the fall when children began the PEG program to the fall when they began Kindergarten. The standardized scores are age normed so that a score of a 100 represents the expected mean score for children of the same age, based on a nationally representative sample. No change over time would reflect growth in skills on par with that demonstrated by the norming sample, while improvements in standardized scores reflect more growth than is typical.

Figure 1: Academic Skills for 2016-17 PEG Children from Beginning of PEG to Beginning of Kindergarten



Note. This graph represents averages only; not all children increased their skills over time, but the majority did. To interpret changes in standard scores over time:

In addition to academic achievement outcomes, there is currently ever-increasing importance placed on non-cognitive skills by researchers, practitioners, and policy makers. PEG teachers rated children’s socio-emotional skills using the Social Skills Improvement System (SSIS) standardized rating scale in the fall and again in June. On average, PEG children showed the expected development of their social skills and classroom behavior, although a small group of children (12 percent) ended the school year with elevated levels of problem behaviors and a similar number (13 percent) showed lower than expected social skills at that time.

VIII. Conclusions

The implementation of PEG programs have stabilized in Year 2; programs have consistently achieved the goals of the grant and demonstrated that the public school, private program collaborations can be effective at expanding access to prekindergarten, implementing high quality learning environments and supporting improved school readiness. Local collaboration has played an essential role in building local alignment, effectively leveraging resources and capacity of local partners and building recruitment systems to support families never before served by the early education system in finding high quality programming. Each program was developed locally, but emerging consistencies in design highlight key program components contributing to the success of the model.

Expanded Access and Support for School Readiness

For many of the PEG families, early education programs have been inaccessible due to the high cost of private pay programs, work requirements of subsidized programs, or the logistical infeasibility of the part day program provided by the public school. Both the full day, full year option and relatively unrestrictive eligibility requirements allowed for expanded access, and highlighted the limitations of the current system.

Of all low income children enrolled in the PEG program in Year 2, 70 percent had never participated in any early education before and likely would have attended kindergarten without such experience. An additional 36 percent did not speak English as a first language and would likely have attended kindergarten with minimal exposure to this language. As result, PEG programs have successfully enrolled children who would have been particularly vulnerable at kindergarten entry and supported the development of essential school readiness skills. Gaps in English vocabulary skills were significantly narrowed over the course of the PEG year, and children left the program with age appropriate literacy and math skills. Social and behavioral skills also developed at age appropriate levels.

Efforts to support families through the transition to kindergarten, from early or streamlined kindergarten enrollment to opportunities to visit kindergarten classrooms, have also been developed through the collaboration. PEG communities are creating opportunities for PEG and kindergarten teachers to share their practices and expectations for children, as well as pass on information about individual children, not a simple task when children disperse across a large urban school district. The ability to track children using public school identifiers has been essential in supporting these efforts.

Local Collaboration

Through local collaboration, each community has addressed challenges in system alignment, such as fragmented referral and enrollment systems, varied expectations among prekindergarten

and kindergarten teachers and an inability to track children's school success from prekindergarten to kindergarten.

Central to the success of these collaborations have been the clear structures and roles that have included opportunities for collaboration at multiple levels of program staff.

The public school PEG coordinators have played a critical role in facilitating the partnerships with the EEC-licensed partner programs, managing the collaboration and ensuring that the shared vision and goals of the community organize the focus of the collaboration.

High Quality Classrooms

PEG programs have invested heavily in their educators, providing multiple professional learning opportunities, including coaching, and ensuring salaries that are commensurate with the public school for lead teachers. These salary investments have allowed programs to hire educators with strong qualifications (all lead teachers have BAs and 23 percent have MAs) and expect high levels of engagement of educators in these professional learning opportunities and other responsibilities outside the classroom, such as efforts to engage in meaningful ways with families.

The classroom quality results reflect the early return on these investments.

- In Year 1 and 2 PEG classrooms demonstrated strong levels of quality on two standardized observational measures, comparable or better than other quality programs.
- More significantly, these classrooms demonstrated growth in quality between Year 1 and 2 on two important dimensions of quality, classroom organization and emotional support. Measures of instructional quality showed early signs of growth as well, but these were not consistent across communities.

Family Supports

PEG programs invested a great deal of staff time and resources in support for families, including home visits, multiple family events, case management and targeted mental health and behavioral supports (both to children directly and to support teachers working with particular children and families).

In Year 2, PEG programs have demonstrated that collaborations between private early education programs and public school districts can effectively implement high quality early education programs and provide an effective entry point to the education system for families and children entering the system for the first time.

Looking ahead

In Year 3 of PEG, communities are continuing to refine local models and are beginning to convene leadership at the local level to plan for sustainability of the PEG program once the federal funding stream ends. To further build capacity at the local level, EEC is offering professional learning opportunities to PEG educational and family support staff to drive continued quality improvement and build a network of support among grantees across the state.

EEC has contracted with Anne Douglass from the University of Massachusetts Boston Institute for Early Education Leadership and Innovation to offer a two-part leadership series to PEG instructional leaders as well as family support administrators. Using a research-based framework that draws on the Learn Lead Excel model from the Ounce of Prevention, the goal of the series is to enhance individual, organizational and community capacity to drive improvement in instructional practice and family engagement efforts to ultimately improve children's learning and developmental outcomes.

PEG grantees are also engaged in the *Building Inclusive Communities Series*, a joint effort of EEC and the Department of Elementary and Secondary Education. Through a series of in person meetings and virtual opportunities for support, the goal of the series is to strengthen and expand inclusive practices through community action planning and networking. PEG communities are engaged in this effort to develop plans for professional development opportunities for educators and to plan for improved coordination of special education services at the local level.

As communities continue to refine the PEG programs and consider the model they would like to sustain when PEG funding ends, important decisions are being made about how to best align early education with elementary education, build a community-wide commitment to engaging families with young children and design an early education program that reaches the most vulnerable children and ensures good school readiness. The programs have demonstrated good success in the first two years of implementation, and continued development and investment should only strengthen the program.