



YEAR 2 Massachusetts Preschool Expansion Grant (PEG) Evaluation Report



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Executive Summary

In late 2014, the Massachusetts Department of Early Education and Care (EEC) was awarded a federal Preschool Expansion Grant (PEG) to support the expansion of high-quality early childhood education in Massachusetts to four-year-old children from low-income families. Although the Massachusetts PEG model supports and encourages local program development and adaptation, each PEG program is expected to focus on the following quality elements (Exhibit E.1):

Exhibit E.1: PEG Model Quality Elements

1.	A collaborative local governance structure designed to oversee implementation and work on systems coordination for all children in the community;
2.	Full-day, full-year programming (at least 8 hours/day, 12 months/year);
3.	A maximum class size of 20;
4.	A maximum child-teacher ratio of 10:1;
5.	A curriculum/a aligned with the MA Preschool Standards and Guidelines (curriculum/a may vary by grantee);
6.	The use of Teaching Strategies Gold® as a formative assessment tool;
7.	One educator in each classroom with a bachelor's degree in a relevant field;
8.	Salaries for all educators commensurate with comparable positions in public schools within the respective community;
9.	Professional development training and coaching for teaching staff, and other supports for planning and implementation of curriculum, in collaboration with the LEA;
10.	Family engagement activities, including support for kindergarten transition and resources about child development;
11.	Comprehensive services including services addressing health, mental health, and behavioral needs for all families;
12.	Inclusion of students receiving special education support; and
13.	Efforts to build linkages with services for children from birth to age 3 as well as connections with elementary schools.

The Year 2 PEG implementation study focuses on the second year of supports and outcomes for teachers, classroom quality, and supports for families. Overall, compared to its first year of implementation, the PEG programs in Year 2 (which was the 2016-17 school year) appear to have made progress towards delivering the key quality components of the PEG model at a consistently high level across all 48 classrooms.

Findings on Year 2 Educator Supports

In the second year of PEG implementation, programs continued to maintain highly-educated teaching staff. PEG programs retained most of their teachers from Year 1 to Year 2; 77 percent of lead teachers and 70 percent of non-lead teachers continued teaching in the second year of the program.

Programs continued to provide professional development opportunities to educators through training, coaching by local school district staff, and formal release time for teacher planning.¹

- **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.
- **Coaching.** Nearly all lead and non-lead teachers reported receiving coaching in Year 2, and the proportion of teachers that received coaching was higher in Year 2 than in Year 1. In both years, most coaching was provided by PEG coaches employed by the local school district.

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

- **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.

In Year 2, PEG programs responded to implementation challenges identified in Year 1, and most notably expanded and improved some of the professional development opportunities to educators. In particular:

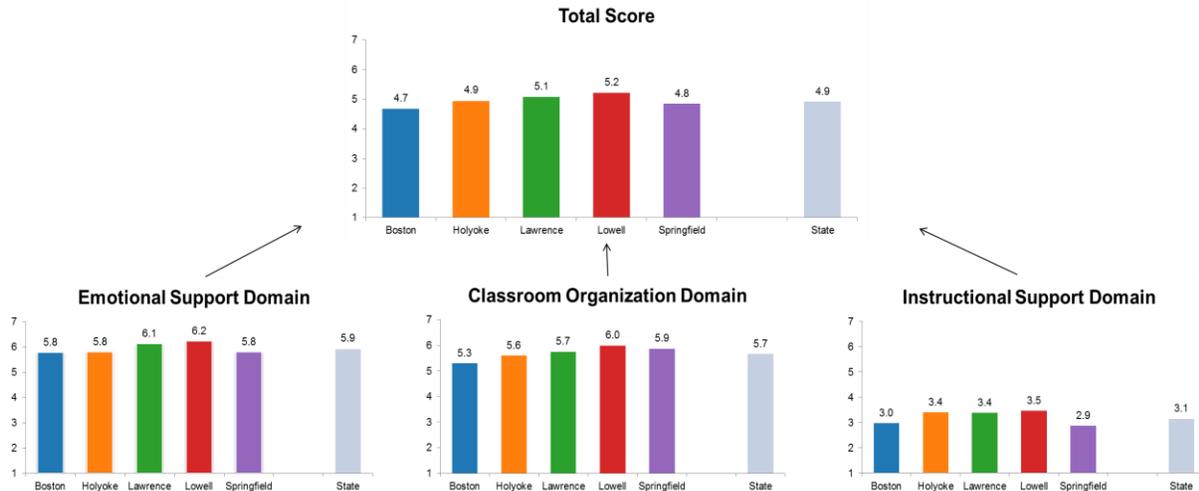
- PEG communities and programs intentionally increased the alignment across the different forms of professional learning (i.e., training and coaching) and the coherence of the professional learning, classroom curriculum, and assessments.
- PEG districts and programs expanded the professional learning opportunities for non-lead teachers.
- PEG programs focused more on establishing a professional learning community for teachers, which represents a potentially powerful avenue for sustaining improvements in programming and instruction.
- Teacher assessment of the usefulness of the training and coaching remained decidedly mixed. PEG districts and programs may want to explore further which professional opportunities would be more meaningful for improving their practice.

Findings on Year 2 Classroom Quality

Observations of the 48 PEG classrooms in Year 2 using the CLASS, a standardized measure of overall instructional quality with a focus on interactions among teachers and children in the classroom, showed overall improvements compared to Year 1 (Exhibit E.2).

- For the Classroom Organization domain, the average CLASS score across all PEG classrooms rose from 5.2 to 5.7, which represents a significant increase. Substantially more classrooms were rated as high quality on this domain in Year 2 (75 percent) than in Year 1 (40 percent).
- For the Emotional Support domain, the Year 2 score (5.9) was more similar to the Year 1 score (5.7), and represents a significant increase. The proportion of classrooms rated as high quality increased from 60 percent to 80 percent.
- For the Instructional Support domain, although the proportion of classes rated as moderate quality increased slightly from 75 percent to 79 percent, the average score remained relatively unchanged from Year 1 (3.2) to Year 2 (3.1).

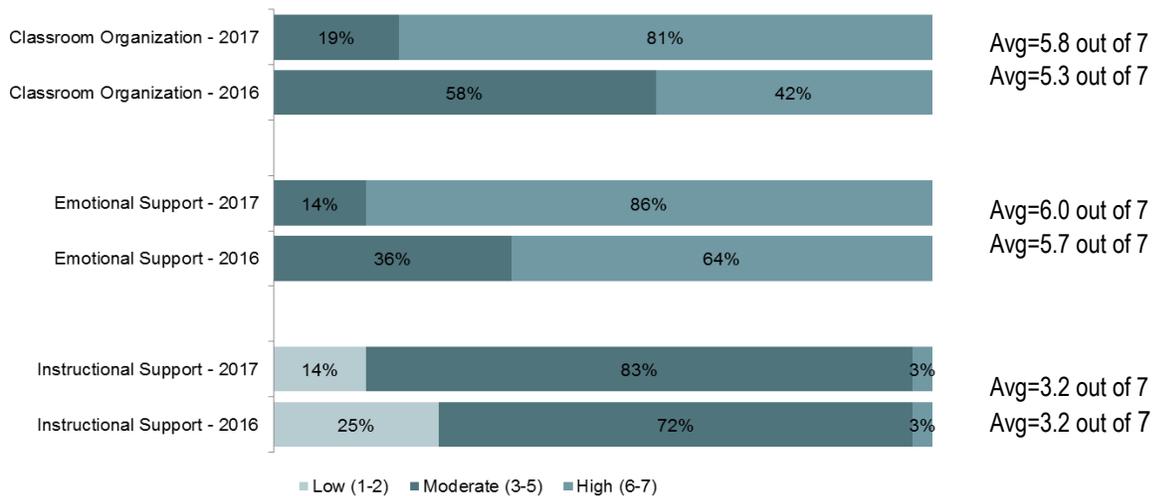
Exhibit E.2: CLASS Average Total and Domain Scores by PEG Community and PEG Statewide, Winter 2017 (n = 48 classrooms)



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

Improved scores from Year 1 to Year 2 at least in part reflected development over time in teachers who were there for both years. The majority of lead teachers were retained in PEG classrooms from Year 1 to Year 2. Excluding new teachers from the analysis, the average scores improved on all three domains (Exhibit E.3).

Exhibit E.3: 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

The findings on classroom quality suggest that there is still some work to do to identify which professional learning opportunities will significantly strengthen instructional quality (e.g., support for teachers to provide more individualized instruction). This challenge is not unique to PEG, as the instructional support domain tends to be lower and the hardest to improve in the broader early childhood literature.

Findings on Year 2 Family Supports and Comprehensive Services

Community and program leadership made efforts in Year 2 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 in Year 2.

PEG programs reported focusing less on individual parent social activities and events and focusing more on an approach to building parent capacities in Year 2, not only to increase home support for child learning and development, but also to enhance parent mental health as well as parenting and broader skills for the current job market. 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 parent-program connection is an area that merits additional exploration for the PEG program. Although challenges remain with engaging and serving all families, given the other demands that many PEG parents have, universal participation may be unrealistic, yet programs should continue to be creative about ways to deliver programs and supports to parents that are flexible and responsive to different parent schedules.

Conclusions

A continuing theme of PEG implementation is the notable variation both across and within communities in the reach and intensity of supports for educators and for families. More needs to be learned about the extent to which variation in supports and services is based on (a) differences across programs in the intentional emphasis on different parts of the PEG model; (b) differences within programs in the level of need of individual educators and parents that may arise because of scheduling challenges, educator or parent motivation, or the like; and/or (c) structural and capacity challenges in fully implementing some or all of the PEG supports.

Overall, it appears that the key quality components of the PEG model are being implemented with increasing intensity. Whether or not the PEG model impacts child outcomes will be better understood in spring 2018, when impact study findings from the PEG evaluation will be available.

Introduction

In late 2014, the Massachusetts Department of Early Education and Care (EEC) was awarded a federal Preschool Expansion Grant to support the expansion of high-quality early childhood education in Massachusetts to four-year-old children from low-income families. Shortly thereafter, EEC contracted an independent research firm, Abt Associates, in partnership with the University of Massachusetts Boston, to conduct a rigorous external evaluation of the program’s implementation, outcomes, and cost-effectiveness over its first four years. That evaluation, now in its third year, includes four components:

	Year 1	Year 2	Year 3	Year 4
	2015-16	2016-17	2017-18	2018-19
Implementation study of the PEG quality components	✓	✓	✓	✓
Longitudinal study of outcomes for PEG children and families		✓	✓	✓
Impact study of effects on PEG children			✓	✓
Cost study/cost-effectiveness study			✓	✓

After introducing the PEG program (Chapter 1), this report describes the second year of supports and outcomes for teachers (Chapters 2 and 3), classroom quality (Chapter 4), supports for families (Chapter 5), and concludes with a discussion of overall implementation progress in Year 2 and next steps for Year 3 (Chapter 6).

In addition to describing the *level* of implementation of key PEG quality components, Chapters 2 and 5 also note *changes* in implementation progress or strategy from Year 1 to Year 2, and the extent to which programs were able to address challenges identified in Year 1 during Year 2.

Taken together, this report provides EEC and the larger PEG community with an important opportunity to learn from implementation successes and challenges experienced by the PEG program over the past year and can inform policy and programmatic decisions about further expansion of high-quality state-funded preschool.

1. Overview of the PEG Program and Evaluation

1.1 PEG Program Model & Rationale

For the past two years, Massachusetts has used federal PEG resources granted to the Commonwealth in late 2014 to fund expansion of full-day, full-year preschool for four-year-old children through public-private partnerships between five local education agencies (referred to as public school districts) and licensed early learning providers (ELPs). The five communities that are participating in PEG are Boston, Holyoke, Lawrence, Lowell, and Springfield. In an effort to expand access to preschool for the most vulnerable families, children are required to meet the following criteria to be eligible for the program:

- The child must have reached his/her fourth birthday by the beginning of their preschool year and be eligible for kindergarten in the following September;
- Their family must reside within the boundaries of the public school district;
- In four of the five communities, the child has not previously been enrolled in a licensed early learning setting; and
- The family income must be below 200 percent of the federal poverty line.

Four of the five PEG communities (all except Boston) target and primarily serve children who have never before been enrolled in licensed early education of any kind (including both center-based programs and family child care homes). In Boston, many children in PEG classrooms were already attending licensed care settings prior to their PEG preschool experience.

Local PEG fund allocations are determined by using the Chapter 70 foundation per child allocation for preschool as a baseline and adjusting upwards to account for the PEG program’s extended hours per day and increased services. The funding mechanism is also designed to ensure a minimum investment in the smallest community (Holyoke) and a corresponding ceiling—adjusted for the high cost of living—for the largest community (Boston).

The five participating school districts are granted PEG funds directly and then subcontract with community-based ELPs to provide direct services to children and families. As Exhibit 2.1 shows, each district subcontracts with two or more ELPs, including at least one Head Start agency and at least one community-based agency. Some ELPs operate PEG classrooms in a single location (referred to as a ‘center’ in this report), whereas others operate PEG classrooms across multiple locations. Prior to the PEG grant, all participating ELPs had experience administering preschool classrooms and managing the licensing of facility space.

Exhibit 2.1: Number of PEG Participating Organizations and Classrooms by Community, 2016-17

Public School District	# of ELPs	# of PEG Centers	# of PEG Classrooms
Boston Public Schools	8	12	15
Springfield Public Schools	3	4 ^b	11
Holyoke Public Schools	2	4	4
Lawrence Public Schools	2	2	10
Lowell Public Schools	2	1 ^c	8
Overall	16^a	24	48

^a One ELP operated PEG classrooms in two communities (Springfield and Holyoke).

^b In Springfield, three ELPs jointly operated one of the four centers.

^c In Lowell, two ELPs jointly operated one center.

OVERVIEW OF PEG PROGRAM AND EVALUATION

1.2 Structure of Program

Although the Massachusetts PEG model supports and encourages local program development and adaptation, each PEG program is expected to focus on the following quality elements (Exhibit 2.2):

Exhibit 2.2: PEG Model Quality Elements

1.	A collaborative local governance structure designed to oversee implementation and work on systems coordination for all children in the community
2.	Full-day, full-year programming (at least 8 hours/day, 12 months/year);
3.	A maximum class size of 20;
4.	A maximum child-teacher ratio of 10:1;
5.	A curriculum/a aligned with the MA Preschool Standards and Guidelines (curriculum/a may vary by grantee);
6.	The use of Teaching Strategies Gold® as a formative assessment tool;
7.	One educator in each classroom with a bachelor's degree in a relevant field;
8.	Salaries for all educators commensurate with comparable positions in public schools within the respective community;
9.	Professional development training and coaching for teaching staff, and other supports for planning and implementation of curriculum, in collaboration with the LEA;
10.	Family engagement activities, including support for kindergarten transition and resources about child development;
11.	Comprehensive services including services addressing health, mental health, and behavioral needs for all families;
12.	Inclusion of students receiving special education support; and
13.	Efforts to build linkages with services for children from birth to age 3 as well as connections with elementary schools.

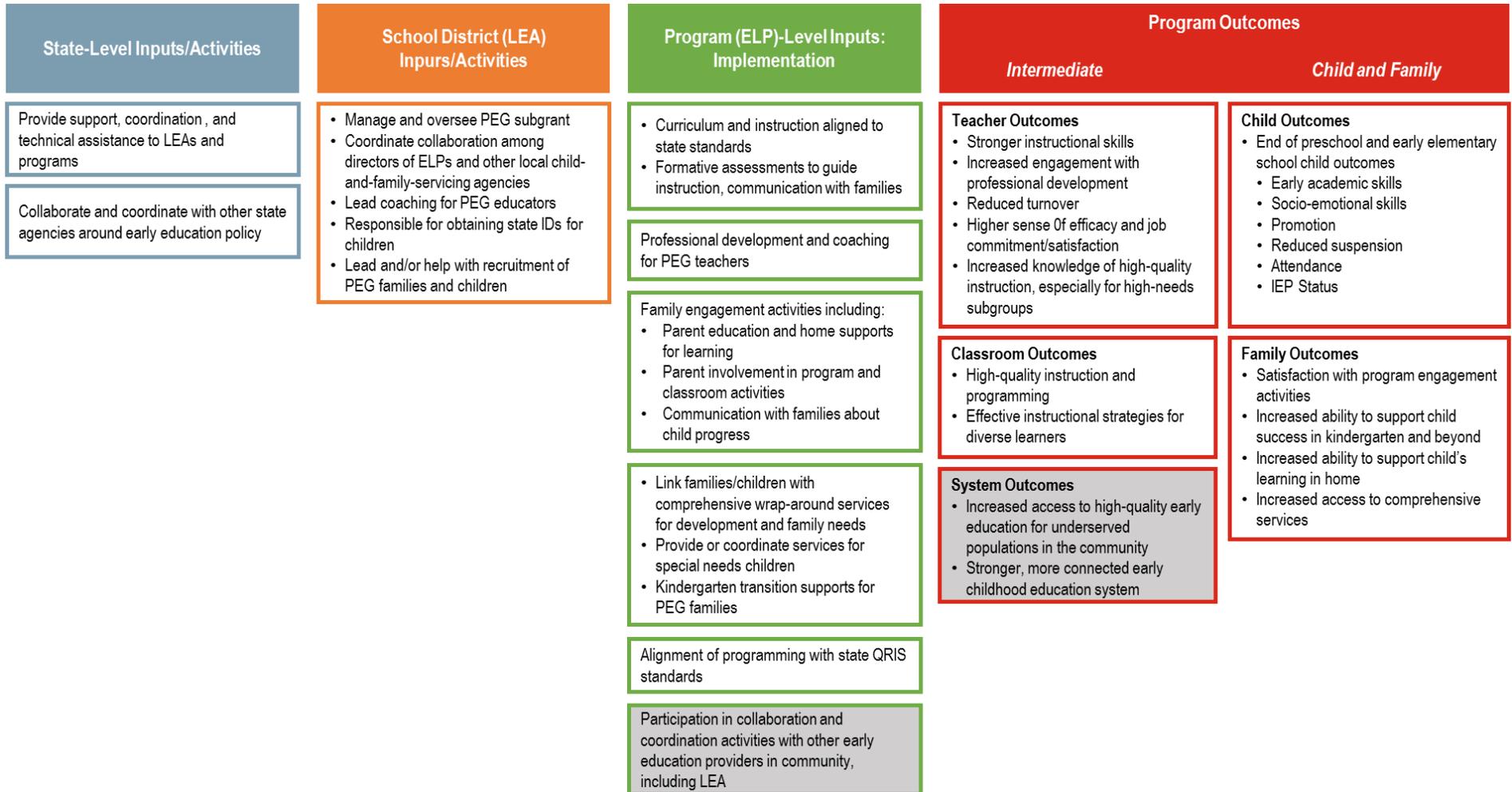
By the end of the grant period, PEG centers are also expected to attain the highest rating (Level 4) in the QRIS or Level 3 and National Association for the Education of Young Children (NAEYC) accreditation. Within the PEG model framework, districts and ELPs are provided with some degree of flexibility regarding the specific approaches they take to implement each element mentioned above. Some (though not all) of the ways in which PEG communities and/or programs differ are listed below:

- Location of services (as already noted, some ELPs co-locate all PEG classrooms within one center, while others provide services across various centers in the community);
- Approach to collaboration with other community providers;
- Extent to which additional compensation of PEG teachers is greater than the typical salary in local community-based programs;
- Curriculum/a used in the classrooms;
- Focus and design of professional development and coaching supports offered; and
- Focus of family engagement efforts and the provision of comprehensive services.

The requirements guiding the PEG program model are intended to ensure the delivery of high quality ingredients and supports that research has repeatedly shown are likely to improve child outcomes, especially for children at risk for academic failure. The PEG model (Exhibit 2.3) is intended to achieve a certain level of quality in instructional and emotional supportiveness, classroom organization, and learning resources. Through these program characteristics, PEG programs are expected to achieve positive outcomes for educators, for parents and children, and for the larger system that supports early education in PEG communities.

OVERVIEW OF PEG PROGRAM AND EVALUATION

Exhibit 2.3: Theory of Change for Massachusetts Preschool Expansion Grant



OVERVIEW OF PEG PROGRAM AND EVALUATION

1.3 Program Demographics

The PEG program has been successful at enrolling children who meet the program eligibility criteria (Exhibit 2.4). In the second year of PEG:

- PEG families reported incomes below 200 percent of the federal poverty level, which is a requirement to enroll in a PEG program. Moreover, 66 percent of PEG families reported incomes below 100 percent of the 2017 federal poverty level for a family of four (\$24,600). The average PEG family income was \$19,203 dollars per year.
- Over 90 percent of PEG children were from racial and/or ethnic minority groups. Overall, over half of children served in PEG classrooms in 2016–17 were Hispanic (52 percent); the proportion of Hispanic children ranged from 27 percent of PEG children in Boston to 99 percent of PEG children in Lawrence. About one-quarter of children (28 percent) served were Black, with the proportion of such children ranging from zero percent in Holyoke to more than 61 percent in Boston.
- Slightly less than half (44 percent) of PEG children lived in households where English was not the primary language spoken. In two communities (Lowell and Lawrence), fewer than one-third of children reported English as their home language. In Lawrence, the majority of children were from Spanish-speaking homes, and in Lowell, children reported speaking a wide range of languages.
- PEG classrooms served a small population of children with Individualized Education Program (IEP) plans, which are developed for each public school child eligible for special education to guide his or her services. The goal is to target enrollment so that at least seven percent of the children in each PEG classroom have an IEP; in 2016-17, close to six percent of children had one.

Exhibit 2.4: Demographic Characteristics of PEG Children Overall and by Community, 2016-17

	Number and Percentage of Children											
	Overall PEG		Boston		Holyoke		Lawrence		Lowell		Springfield	
Race/Ethnicity												
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%

Notes. Data obtained from EEC data for all 48 PEG classrooms during Fall 2016. Percentages may not add up to 100 because numbers are rounded to the nearest whole.

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

1.4 Overview of Year 2 Evaluation

1.4.1 Data Sources and Sample Description

The data presented in the remainder of this report are drawn from multiple sources including:

- An online survey of all PEG teachers and assistant (referred to as ‘non-lead’) teachers;
- Interviews with PEG program directors and other program-level instructional leadership (referred to as education directors), PEG coaches, and PEG family engagement specialists/support staff; and
- Direct observations of all 48 classrooms to assess instructional quality.

Response rates were high across the different data sources.

The teacher survey was sent to 122 PEG lead and non-lead teachers in spring 2017. Eighty-four teachers completed the survey, for a response rate of 69 percent (Exhibit 2.5). The response rate was higher for lead teachers than for non-lead teachers. Nearly all lead teachers responded² (90 percent), representing 44 of 48 PEG classrooms, and 38 of 71 non-lead teachers responded (54 percent), representing 25 of 48 PEG classrooms (Exhibit 2.6). Exhibit 2.5 summarizes survey responses by community. Three classrooms—one each in Boston, Lowell, and Holyoke—were not represented by either a lead or non-lead teacher.

Exhibit 2.5: Overall Teacher Survey Response Rate, Spring 2017

	Lead		Non-Lead		All	
	Respondents	% of PEG Lead Teachers	Respondents	% of PEG Non-Lead Teachers	Respondents	% of All PEG Teachers
Boston	16 ^a	89%	8	38%	24	62%
Holyoke	3	75%	7	78%	10	77%
Lawrence	9	90%	4	44%	13	68%
Lowell	7	88%	7	58%	14	70%
Springfield	11	100%	12	60%	23	74%
State	46	90%	38	54%	84	69%

^a Three classrooms in Boston had more than one teacher who was considered to be a ‘lead’; in two of those classrooms, both lead teachers completed the survey.

² Though there are 48 PEG classrooms, three classrooms had two lead teachers in each, for a total sample of 51 lead teachers.

OVERVIEW OF PEG PROGRAM AND EVALUATION

Exhibit 2.6: Proportion of Classrooms with At Least One Teacher Survey Response, Spring 2017

	Total PEG Classrooms	At Least One Lead Teacher Respondent		At Least One Non-Lead Teacher Respondent	
		# Classrooms	% of Classrooms	# Classrooms	% of Classrooms
Boston	15	14	93%	6	40%
Holyoke	4	3	75%	4	100%
Lawrence	10	9	90%	3	30%
Lowell	8	7	88%	5	63%
Springfield	11	11	100%	7	64%
State	48	44	92%	25	52%

Notes. The following four ELPs had a classroom without a lead teacher respondent: ABCD, GLCAC, Little Sprouts, and VOC. The following 12 ELPs had a classroom without a non-lead respondent: ABCD (3), Boys Girls Club of Dorchester, Catholic Charities, Community Group (3), CTI (2), Ellis Memorial, GLCAC (4), HCS-HS Springfield (2), Little Sprouts, Paige, YMCA of Greater Boston (2), and YMCA of Greater Springfield (2). ABCD, GLCAC, and Little Sprouts each had one classroom with no respondent.

The participation rate for interviews was high for each respondent type, though somewhat lower for family support staff than for the other staff groups (Exhibit 2.7). Observations were conducted during the late winter of 2017 (February-March) and interviews were conducted during the late spring of 2017.

Exhibit 2.7: In-Person Interviews Conducted, Spring 2017

	Coaches		Program Directors		Family Support Staff		Education Directors	
	n	% of All PEG Coaches	n	% of All PEG Directors	n	% of All PEG Family Support Staff	N ^d	% of All PEG Ed Directors
Boston	4	100%	9	75%	3	75%	0	0%
Holyoke	1	100%	2	100%	2	100%	0	-
Lawrence	3	100%	2	100%	1	50%	1	50%
Lowell	0	0% ^a	2	100%	3	67% ^c	4	100%
Springfield	2	100%	2	67%	3	50%	3	100%
State	10	83%	17	81%	11 ^b	65%	8	80%

^a The Year 2 coaches who worked with programs for the first part of the year (as well as during Year 1) left the district mid-year. Although new coaches were hired in March-April 2017, they were not interviewed.

^b There was overlap in family support staff between Springfield and Holyoke.

^c These three staff were hired in late Spring 2017 and include one family support staff per ELP along with a supervisor.

^d A zero in this column does not indicate that there were not education directors in these communities; only a sample of the education directors were interviewed to help capture the professional development activities in each community.

2. Findings on PEG Professional Learning Opportunities

The PEG program model seeks to provide high-quality instruction and learning environments through effective systems, structures and practices. To this end, PEG programs employ well-educated staff who are provided with levels of compensation that maintain parity with the local school districts. Also, districts and programs have worked to build the instructional capacity of PEG educators through multiple job-embedded professional learning opportunities, including training and coaching, and paid release time for instructional planning and collaboration.

In the second year of PEG implementation, programs continued to maintain highly-educated teaching staff and provided training, coaching, and some formal release time for teacher planning.³ 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, although in most cases, non-lead teachers still received fewer supports than lead teachers. In Year 2, PEG districts and programs focused more on supporting teacher collaboration around improved instruction and program quality and establishing a professional learning community for teachers. Districts and programs continued to face challenges with providing professional supports focused on the instruction of special needs children.

This chapter provides details about the professional learning opportunities for PEG teachers in Year 2 including training, coaching, paid release time, and teacher collaboration. Changes observed between Years 1 and 2 are highlighted, with a focus on Year 1 implementation challenges that were successfully addressed and challenges that persisted or were newly identified in Year 2.

2.1 Level of Education of PEG Teaching Staff in Year 2

PEG programs retained most of their teachers from Year 1 to Year 2; 77 percent of lead teachers and 70 percent of non-lead teachers continued teaching in the second year of PEG. Because of the low rate of turnover, the characteristics of the PEG teaching staff in Year 2 remained generally similar to Year 1. In Year 2, almost all lead teachers had at least a bachelor's degree 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 (Exhibit 3.1).

³ In Year 1, four of five communities provided PEG coaching.

Exhibit 3.1: 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%
Currently employed outside of PEG	8	21%	4	9%	5	15%	6	16%

2.2 Training Opportunities for PEG Staff in Year 2

This section combines teacher-reported information on training received (via teacher surveys) and perspectives on training from program directors and education managers (via in-person interviews).

2.2.1 Amount of Training in Year 2

In Year 2, half of lead teachers and 42 percent of non-lead teachers reported receiving at least 21 hours of professional training (Exhibit 3.2). Compared to Year 1, it appears that the number of hours of training received by PEG teachers increased, on average, for both lead and non-lead teachers. Also, the differential in the amount of training between lead and non-lead teachers narrowed. Whereas in Year 1, twice as many lead teachers as non-lead teachers received at least 21 hours of training, the percentages in Year 2 are substantially more similar. These changes indicate that an issue raised in Year 1 – the need to increase the increase the professional learning opportunities for non-lead staff - was beginning to be addressed.

At the same time, there were still some educators who reported receiving only a few hours of training over the course of Year 2. The PEG program does not establish specific thresholds for the expected amount of training staff should receive, and there is not an accepted optimal threshold in the field. Therefore, it is not clear whether the program is providing a level of training sufficient to lead to continued improvements in teachers’ instructional practices. It seems unlikely that ten or fewer hours of training over the course of a

year, as was reported by nearly 30 percent of lead teachers and 24 percent of non-lead teachers in Year 2, is sufficient to achieve meaningful change in practice.

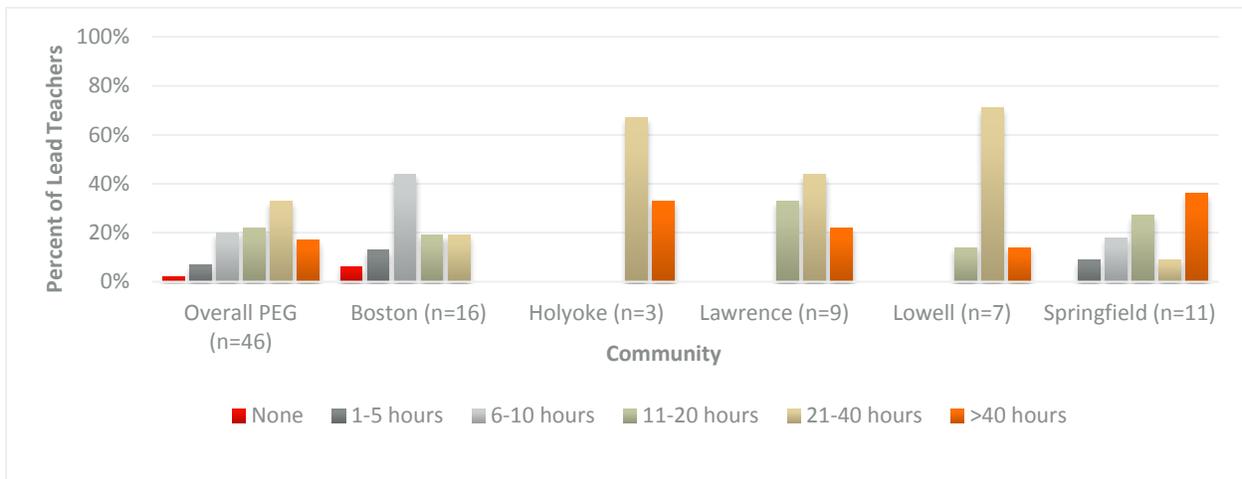
Exhibit 3.2: Hours of Training Received (Not Including Individual Coaching), 2015-16 and 2016-17

	Lead Teachers (All Communities)				Non-Lead Teachers (All Communities)			
	Year 1 (n = 25)		Year 2 (n = 46)		Year 1 (n = 12)		Year 2 (n = 38)	
	n	%	n	%	n	%	N	%
None	0	0%	1	2%	0	0%	0	0%
1-5 hours	2	8%	3	7%	3	25%	5	13%
6-10 hours	5	20%	9	20%	3	25%	4	11%
11-20 hours	8	32%	10	22%	3	25%	13	34%
21-40 hours	6	24%	15	33%	3	25%	15	39%
More than 40 hours	4	16%	8	17%	0	0%	1	3%
Average # hours		23 hours		21-40 hours ^a		14 hours		21-40 hours

^a A mean value could not be computed in Year 2 since teachers selected a range of hours versus indicating a particular value; the range listed here therefore represents the most common response selection.

In Year 2, similarly to Year 1, the amount of training reported by teachers varied by community (see Exhibit 3.3). In Year 2, in three communities (Holyoke, Lowell, and Springfield), the majority of lead teachers reported receiving at least 21 hours of training, while in the other two communities (Boston and Lawrence), less than half of the lead teachers reported this many training hours. The pattern was similar for non-lead teachers in Year 2, except that a higher number of training hours was reported by non-lead teachers in only two of the communities (Lowell and Springfield) (Appendix Exhibit A.1)

Exhibit 3.3: Hours of Training Received by Lead Teachers (Not Including Individual Coaching) by Community, 2016-17



2.2.2 Content and Perceived Effectiveness of Training in Year 2

In Year 2, nearly all lead teachers reported training related to content instruction, guiding and interacting with young children, strategies for supporting children’s language-rich interactions and children’s socio-emotional development, and working with families (Exhibit 3.4). Fewer lead teachers reported training on working with children with special education needs, although the overall percentage of lead teachers (65 percent) represents an increase over Year 1, which may indicate a more concerted effort in Year 2 to provide needed training in this topic.

Generally, less than half of lead teachers rated any of their training as “very effective” (Exhibit 3.5). The proportion of teachers that judged the training to be effective did not differ much across topic areas, although the fewest number of teachers rated the training related to children with special education needs as effective. Non-lead teachers were more positive about the training; on most topics, more than half of these teachers rated their training as very effective.

Exhibit 3.4: Topics of Training Received by Lead and Non-Lead Teachers, 2016-17

Training Topic	% Lead Teachers Who Reported Receiving Any Training on Topic (n = 42-46 teachers)	% Non-Lead Teachers Reported Receiving Any Training on Topic (n = 34-36 teachers)
Curriculum/content area instruction		
BPS's revised K0/K1 curriculum (Focus on K0/K1)— <i>Boston only</i>	83%	Not surveyed on this topic
Curriculum-specific training	98%	92%
General content instruction (language/literacy/math instruction)	86%	82%
Alignment between content taught in K1 and later grades- <i>Boston only</i>	60%	62%
Cognitively-demanding tasks	63%	68%
Classroom environment and interactions		
Guiding and interacting with young children	91%	97%
Language-rich interactions with children	91%	89%
Understanding child development	81%	85%
Classroom organization and learning environments	77%	82%
Socio-emotional development		
Supporting children's social/emotional development	91%	94%
Behavior management	81%	82%
Working with children with diverse needs		
Supporting learning of English Language Learners	82%	74%
Supporting children with special needs in the classroom	65%	71%
Special education referrals	74%	68%
Working with diverse populations	80%	80%
Children/families with trauma	67%	62%
Child and classroom assessment		
Training in using particular tools to understand the classroom environment (ECERS, CLASS, etc.)	80%	79%
Training in using particular assessment tools (i.e., ASQ, TS Gold, DIBELS)	76%	81%
Conducting formative child assessments through observation, child screening, and/or assessments	84%	97%
Working with families		
Communicating with parents	82%	80%
Family engagement	84%	88%
Other		
Health, safety, and nutrition	77%	94%
Training on state standards	66%	71%

PROFESSIONAL LEARNING OPPORTUNITIES

Exhibit 3.5: Usefulness of Training as Assessed by Lead and Non-Lead Teachers, 2016-17

Training Topic	% Lead Teachers Who Rated Training as “Very Effective” (n = 42-46 teachers)	% Non-Lead Teachers Who Rated Training as “Very Effective” (n = 34-36 teachers)
Curriculum/Content area instruction		
BPS's revised K0/K1 curriculum (Focus on K0/K1)— <i>Boston only</i>	60%	Not surveyed on this topic
Curriculum-specific training	47%	58%
General content instruction (language/literacy/math instruction)	39%	57%
Alignment between content taught in K1 and later grades— <i>Boston only</i>	28%	43%
Cognitively-demanding tasks	37%	39%
Classroom environment and interactions		
Classroom organization and learning environments	36%	46%
Guiding and interacting with young children	50%	64%
Understanding child development	49%	66%
Language-rich interactions with children	48%	65%
Children’s socioemotional development		
Supporting children’s social/emotional development	57%	69%
Behavior management	32%	50%
Working with children with diverse needs		
Supporting learning of English Language Learners	42%	64%
Supporting children with special needs in the classroom	29%	52%
Working with diverse populations	46%	61%
Special education referrals	25%	43%
Child and classroom assessment		
Training in using particular tools to understand the classroom environment (ECERS, CLASS, etc.)	44%	56%
Training in using particular assessment tools (i.e., ASQ, TS Gold, DIBELS)	38%	59%
Conducting formative child assessments through observation, child screening, and/or assessments	36%	64%
Working with families		
Communicating with parents	49%	61%
Family engagement	47%	43%
Other		
Health, safety, and nutrition	42%	59%
Training on state standards	45%	50%
Trauma training	38%	29%

Notes. The proportion of teachers in each cell reflects those who responded that they received some training on a topic and indicated that the training was ‘very effective’ at helping improve their classroom practices. Response options included ‘very effective,’ ‘somewhat effective,’ ‘neutral,’ ‘somewhat ineffective,’ and ‘somewhat ineffective.’ The proportion of lead teachers that reported each training topic to be ‘somewhat effective’ was also notable and ranged from 14 to 35 percent of those that received training.

2.2.3 Professional Development Adjustments Reported by Program Leadership

The majority (65 percent) of the program directors and educational leaders interviewed across the five PEG communities reported making changes to the training offered to PEG teachers in Year 2 to improve its relevance and effectiveness. These changes involved increasing the overall amount of training and to the content covered. The most common reasons for these changes were to address needs identified by program staff (administrators and teachers) in Year 1 or in response to QRIS requirements (Exhibit 3.6).

Exhibit 3.6: Reasons Directors Changed Focus of Professional Development Training, 2016-17

Reasons	# of Program Directors (n=14)	%	# of Communities Represented
Fulfill a QRIS requirement	6	43%	5
Be responsive to a need noted by coaches or teachers	6	43%	4
Fulfill a PEG requirement/goal	4	29%	4
Be responsive to classroom observation data in Year 1	4	29%	3
Fulfill a school district requirement	1	7%	1
As part of NAEYC accreditation	1	7%	1

From the perspective of program leadership, the teacher training in Year 2 was primarily focused on three areas:

1. **Curriculum development:** Nearly all program directors and education managers interviewed (13 of 14 respondents, representing all 5 communities) prioritized training that focused on improving their teachers’ understanding and implementation of the specific curriculum (and curriculum modules) being used in their PEG classrooms. Some of the training highlighted specific areas within the curriculum such as literacy and social emotional development, and other training focused on positive teacher-child interactions (as also emphasized by the CLASS observation protocol) in the context of the curriculum.
2. **PEG/QRIS requirements:** Nearly 60 percent of program directors and education managers (8 of 14 respondents, representing 4 communities) reported focusing teacher professional development training on achieving certain QRIS ratings that are expected as part of the PEG model.
3. **Supporting teachers as leaders:** Just under half of program directors and education managers (7 of 14 respondents, representing 3 communities) reported establishing goals for developing the leadership skills of teachers. These program directors and education leaders defined leadership in different ways, from encouraging non-lead teachers to finish their bachelor’s degrees to creating opportunities for lead teachers to share their knowledge with other educators in their classrooms and beyond.

Program directors were generally satisfied with how well the teacher training in Year 2 addressed teacher’s needs; their average rating of the relevance of the training was 3.86 on a 5-point scale. However, they also identified specific areas/topics in which PEG teachers could benefit from more professional development. Areas that were identified included:

- Supporting children who have special needs (4 communities);
- Dealing with challenging behaviors in the classroom (3 communities);

- Working with families (2 communities);
- Literacy and language development (2 communities); and
- Trauma (1 community).

At the end of Year 1, teachers rated their professional development related to special education students as among the least effective and useful. Program directors in four of the communities also identified this topic as an area where more training is still needed. In Year 2, it does not seem that this training need has been fully addressed.

2.3 Coaching for PEG Teachers in Year 2

Information on coaching in Year 2 is based on information from interviews with PEG coaches from four of the five communities,⁴ supplemented by teacher perspectives from surveys. Comparisons between Years 1 and 2 were not always possible because of a lack of comparable data.

2.3.1 PEG Coach Characteristics

In Year 2, in all five communities, school district employed coaches worked with the PEG teachers. Across the four communities included in this report, all but one PEG coach returned at the beginning of Year 2 (Exhibit 3.7), while in the fifth community both coaches returned but left mid-year of Year 2. All PEG coaches had worked in the early education field before, either as a teacher, center or school leader, or specialist. Many PEG coaches had prior experience with coaching ranging from three to ten years. In one community, where a PEG coach had no prior experience with coaching, the district’s early childhood director provided close supervision of the coach that included field observations, after which the supervisor would provide targeted feedback about how the coach could improve her work with teachers.

Exhibit 3.7: Number of PEG Coaches by Community, 2016-17

	Boston	Lawrence	Springfield	Holyoke	Lowell
# PEG coaches	4	3	3	1	2
# PEG coaches returning from Year 1	4	0 ^a	2	1	2 ^b
# PEG coaches with coaching experience prior to PEG	3	2	1	0	1

^a This community did not offer PEG coaching in Year 1.

^b Two returning coaches left mid-way through Year 2 and were replaced by new coaches.

2.3.2 PEG Coach Job Responsibilities and Caseloads

Across communities, each PEG coach had a caseload of 4 or 5 PEG classrooms (Exhibit 3.8), and in three communities, coaches also coached non-PEG classrooms. In addition to their direct coaching responsibilities, some coaches performed other non-coaching tasks in PEG programs and some held coaching and/or non-coaching roles in non-PEG classrooms.

⁴ Coaches in the fifth community (Lowell) were not interviewed in Year 2 because the two coaches left the district during the middle of the year. New coaches were hired in the spring of 2017.

Exhibit 3.8: PEG Coach Caseloads and Other Responsibilities, 2016-17

	Boston	Lawrence	Springfield	Holyoke
Caseload (average # of classrooms per coach)	5 per coach (1 coach had 2 classrooms)	5 per coach (1 coach provided supervisory coaching to all classrooms)	3-4 per coach	4 per coach
Non-coaching and/or non-PEG responsibilities	Curriculum development, NAEYC mentoring, professional development for teachers, non-PEG coaching	NAEYC coaching, overseeing PEG grant, family engagement, professional development for teachers	Coaching teachers in non-PEG classrooms. PEG coaches were responsible for between 2-10 non-PEG classrooms	Professional development for teachers, coaching in non-PEG classrooms

2.3.3 Amount of Coaching Teachers Received

Nearly all lead teachers (98 percent) and non-lead teachers (84 percent) reported receiving coaching from either the PEG district coaches or non-public school coaches in Year 2 (Exhibit 3.9). This represents an increase from the percentages reported in Year 1 (92% and 78, respectively). In both years, most coaching was delivered by PEG public school coaches.

In Year 2, about one-fifth of lead teachers reported receiving more than 40 hours of public school coaching, and one-third each reported between 10 and 21 hours and fewer than 10 hours of coaching. The proportion of lead teachers reporting more than 40 hours of PEG coaching increased in Year 2. About one-third of lead teachers also reported receiving coaching from non-public school staff, although for most teachers, this constituted less than 10 hours of coaching during the year.

Two-thirds of the non-lead teachers reported receiving coaching in Year 2. PEG communities made efforts to address the concern raised in Year 1 about more limited coaching for non-lead teachers, of note, in Year 2, the majority of non-lead teachers received ten or fewer hours of coaching, still less than among lead teachers (Exhibit 3.9).

Exhibit 3.9: Coaching Received by PEG Teachers, 2016-17

	Lead Teachers (n = 45)		Non-Lead Teachers (n = 37)		All Teachers (n = 82)	
	n	%	N	%	N	%
Any Coaching Received from...						
PEG public school coaches	42	93%	29	78%	71	87%
Non-public school coaches	15	33%	6	16%	21	26%
Public school or non-public school coaches	44	98%	31	84%	75	91%
PEG Public School Coaches: Number of Hours of Coaching						
None	3	7%	8	22%	11	13%
1 to 5 hours	10	22%	9	24%	19	23%
6 to 10 hours	4	9%	7	19%	11	13%
11 to 20 hours	8	18%	3	8%	11	13%
21 to 40 hours	6	13%	5	14%	11	13%
Over 40 hours	9	18%	2	5%	11	13%
Do Not Know	5	11%	3	8%	8	10%

There was variation in the amount of coaching by community (Appendix Exhibits A.2 and A.3). Overall teachers in two communities (Holyoke and Springfield) reported more PEG coaching than teachers in the other three communities (Boston, Lawrence, and Lowell).

2.3.4 Focus of Coaching

PEG coaches reported that in Year 2, the content of coaching sessions was more closely aligned to the professional development training than in Year 1. As reported by lead teachers, the most common focus of PEG coaching sessions was supporting instruction generally (i.e., not a particular content area), which is consistent with Year 1 (Exhibit 3.10). Supporting children's literacy and language skills was another common focus of coaching. Although over 60 percent of lead teachers reported receiving coaching in math instruction, less than half received coaching about science or social studies instruction. Fewer than half (41 percent) of teachers reported receiving coaching on using assessments to guide instruction. There was some variation in the focus of coaching by community (Appendix Exhibits A.3 and A.4).

Exhibit 3.10: Focus of PEG Coaching, 2016-17

	Lead Teachers (n = 44)		Non- Lead Teachers (n = 31)		All Teachers (n = 75)	
	n	%	n	%	n	%
Instruction						
General instruction	35	80%	22	71%	57	76%
Supporting children's language skills	31	70%	20	65%	51	68%
Supporting children's literacy skills	36	82%	21	68%	57	76%
Supporting children's mathematics skills	28	64%	21	68%	49	65%
Supporting children's science concepts	21	48%	12	39%	33	44%
Supporting children's social studies concepts	14	32%	11	35%	25	33%
Child development and classroom support						
Supporting children's social/ emotional development	31	70%	21	68%	52	69%
Supporting children's play	31	70%	15	48%	46	61%
Classroom organization and learning environment	29	66%	19	61%	48	64%
Behavior management	19	43%	14	45%	33	44%
Other						
Using information from child formative assessment, screeners and assessments	18	41%	9	29%	27	36%
Supporting English Language Learners	13	30%	8	26%	21	28%

2.3.5 Teacher Assessment of Coaching in Year 2

Teachers had mixed opinions about the degree to which coaching had affected their behaviors (Exhibit 3.11). All but four teachers reported that coaches had helped them improve in at least one area. Close to half of teachers (48 percent) strongly agreed that PEG coaching helped them to make better use of trainings. Fewer teachers strongly agreed that PEG coaching had helped them learn more about how to manage behaviors in the classroom (29 percent) or improved the way they support English language learners (25 percent). Generally more teachers in Boston and Holyoke reported that they strongly agreed that particular components of coaching (such as being able to better use what they learned in trainings, creating better lesson plans, applying new skills in the classroom, and knowing how to effectively manage behavior) were helpful to them than teachers in Lowell and Springfield.

Exhibit 3.11: Teacher Perceptions of Helpfulness of PEG Coaching, 2016-17

	Lead Teachers (n = 44)		Non-Lead Teachers (n = 31)		All Teachers (n = 75)	
	n	%	n	%	n	%
<i>I strongly agree that PEG coaching helped me because I...</i>						
Have been able to better use what I learned in professional development/formal group trainings.	21	48%	15	48%	36	48%
Am creating better lesson plans.	18	41%	9	29%	27	36%
Am doing a better job applying new skills in the classroom.	18	41%	13	42%	31	41%
Have expanded the number of teaching techniques I use.	18	41%	12	39%	30	40%
Have greatly improved my teaching.	15	34%	13	42%	28	37%
Know much more about how to effectively manage behavior in the classroom.	11	25%	10	35%	22	29%
Am able to better support English Language Learners.	9	20%	10	32%	19	25%

2.3.6 Coaching Process

In interviews, coaches reported using a variety of approaches to individualize the topics and frequency of coaching sessions, including integrating teacher input. Coaches in three communities also reported using feedback from program directors to help design their coaching. Two communities used formal tools to guide decision-making around coaching topics. These tools captured curriculum implementation, instructional quality, and behavior management strategies used by teachers in the classroom.

Coaching Strategies

In Year 2, PEG coaches reported the use of specific coaching strategies to guide their work. Together, these strategies indicate that coaches used a cycle that included observation and evidence collection, reflection, and feedback (Exhibit 3.12).

Exhibit 3.12: Strategies Used by PEG Coaches, 2016-17

Strategy	# of Communities (n=4)
Initial coaching assessment	3
Developing and tracking goals	4
Observation of teacher in classroom	4
Modeling/demonstration/role-play	4
Reflection and feedback	4
Training	4
Co-teaching	3
Relationship-building (time spent in initial stages of coaching to assess and understand classroom practices and needs)	3
Providing resources (evidence-based practices, research articles, etc.)	3
Formal observation measures and data collection	2
Videos or recordings	2

While the coaches' classroom visits generally involved a similar process (i.e. observation-debrief-goal setting), there was variability across communities in how coaching topics were selected:

- In Boston, the focus of coaching sessions was driven by teacher needs based on teacher input and from a formal needs assessment conducted by coaches during a classroom observation at the beginning of the school year. The needs assessment focused on teachers' behavior management, instructional strategies, and fidelity of curriculum implementation. Observation notes and a curriculum fidelity checklist were used by coaches throughout the year to refine the topics that they focused on with teachers.
- In Springfield, shared coaching goals for the year were developed during meetings of all PEG lead teachers. These took the form of SMART goals (specific, measurable, achievable, results focused, and time bound). Coaches and PEG lead teachers reviewed videos of PEG classrooms during these meetings and discussed discrete steps that could be taken to meet the shared goals. Coaches also worked with individual classrooms on more targeted goals. Coaches reported that teachers videotaped themselves for use during self-reflection exercises. In addition to the feedback and direction provided by teachers, coaches used CLASS data and teacher reports of their own professional development goals to determine the focus of the individualized work.
- In Lawrence, coaches reported that the focus of their work was driven by program leadership. These coaches reported that the overarching goals of the coaching work were decided at the beginning of the year during meetings of the program directors. The goals generally focused on QRIS requirements. Directors used CLASS data to determine the focus on asking open-ended questions, having feedback loops in the classroom, digging into thought processes behind child answers, and increasing student talk. Teachers were able to refine the focus of some coaching sessions by sharing additional information about their own needs.

Documentation and Supervision of Coaching

PEG coaches reported using more formal strategies to document their work with teachers in Year 2. All four communities reported using at least two methods for documenting the content of coaching sessions and the progress teachers made toward meeting goals. These methods included:

- Observation notes (4 communities);
- Contact logs (3 communities);
- Formal observation tools such as curriculum fidelity checklists or the CLASS to document teacher progress (2 communities); and
- A tracking system to help coaches assess whether the teacher had fully or partially met the goals set in a prior session (1 community).

In three of the four communities, PEG coaches received formal supervision by district staff. In two of these communities, observation of coaches was part of the supervision. In all communities in which formal supervision was present, feedback was provided to coaches to improve their practice in the field. In one community, coaches created formal professional development plans at the beginning of the school year and were responsible for uploading evidence that they were making progress toward their goals. In another community, coach performance was evaluated using the state Educator Evaluation Framework that is used to regularly assess the performance of district educators. In addition, coaches in two of the four communities reported regular meetings with other district coaches to help support their work.

2.3.7 Coaching Successes and Challenges in Year 2

Careful observation, honest feedback, modeling, and reflection were mentioned by program directors as key elements of effective coaching. Two program directors in one community also identified one-one-one meetings between coaches and teachers as highly important, while others pointed to the importance of directors being involved in the coaching process.

Program directors identified several ways that they perceived teachers' practice to have changed as a result of PEG coaching, including but not limited to: teachers taking leadership roles by sharing knowledge and perspectives with other teachers and center leadership (n= 3 representing 3 communities or 18 percent of directors interviewed); better implementation of the curriculum (n=6 representing 3 communities or 35 percent of directors); more interactions during read aloud and more use of open-ended questions (n= 2 representing 1 community or 12 percent of directors); and increased teacher confidence (n= 2 representing 1 community or 12 percent of directors). When coaches were asked to describe the area or areas in which their teachers had improved the most in Year 2, they noted differentiation of instruction, using data to plan instruction, using PEG curriculum, creating positive classroom environments, and asking open-ended questions.

While PEG coaches were largely positive about the work they had accomplished in Year 2, they also reported challenges. Coaches from the four communities struggled with limited availability of teachers for coaching sessions. In three communities, scheduling challenges resulted from inadequate teacher coverage, which interfered with the provision of timely feedback to teachers after observation sessions. In one community, coaches described the challenges of working with teachers whose schedules fluctuated; finding consistent time slots when both the lead teacher and the PEG coach were available was a struggle. Another community struggled with regular teacher absences that were not communicated in advance to the coaching staff.

Program directors were more positive about staff coverage for coaching; a substantial number of directors (n=9 representing communities) reported sufficient staff coverage whereas others (n=3 representing 3 communities) communicated having coverage "most of the time." Overall, program director satisfaction with regards to coaching received was: 3.82 on a 5-point scale, with 5 being most satisfied.

In one community, coaches struggled with effectively handing over control of the instructional leadership to program directors. While coaches developed strong relationships with some teachers, some coaches worried about the unexpected effect of making program directors too reliant on the coach when it came to working with teachers to improve their practice. One coach described this issue as interfering with true change because she did not think that the coach had the authority to make changes in response to barriers the teachers described in coaching sessions. In Year 2, this community had begun providing PEG coaching to program directors in order to address this issue, but encountered issues with the directors' capacity to add another responsibility to the multitude of other duties that they were already responsible for.

2.4 Paid Release Time for Instructional Planning in Year 2

2.4.1 Amount of Release Time

Although the PEG model does not require teachers to have formal release time to spend away from the classroom to plan for instruction, programs are encouraged to provide this time. In Year 1, almost 60 percent of teachers reported receiving at least a few hours per week of formal release time and in Year 2, this proportion increased to 76 percent of teachers (Exhibit 3.13). About one third of lead and non-lead teachers reported receiving release time once per week (Exhibit 3.14). The amount of paid release time reported by teachers was similar across communities (Appendix Exhibits A.4 and A.5).

Exhibit 3.13: Hours of Paid Release Time for PEG Teachers, 2015-16 and 2016-17

	Lead Teachers				Non-Lead Teachers			
	Year 1 (n = 38)		Year 2 (n = 46)		Year 1 (n = 33)		Year 2 (n = 38)	
	n	%	n	%	n	%	n	%
None	15	39%	7	15%	9	29%	10	26%
>0-1 hour/week	Not asked		2	4	Not asked		2	5
1-5 hours/week	20	53	30	65	18	58	22	58
6-10 hours/week	1	3	5	11	1	3	1	3
11-20 hours/week	2	5	0	0	0	0	1	3
Don't Know	0	0	0	0	2	6	1	3
Other	0	0	2	4	1	3	1	3

Exhibit 3.14: Frequency of Teacher Paid Release Time, 2016-17

	Lead Teachers (n = 38)		Non-Lead Teachers (n = 28)	
	n	%	n	%
1 day/week	12	32%	10	36%
2 days/week	4	11	3	11
3 days/week	4	11	1	4
4 days/week	1	3	0	0
Every day	4	11	5	18
Don't Know	2	5	5	18
Other	11	29	4	14

More than half of PEG lead teachers (55 percent) reported that they did not have enough release time to complete their job responsibilities, which is slightly higher than what was reported in Year 1 (Exhibit 3.15).

Exhibit 3.15: Teacher Perception of Sufficiency of Amount of Paid Release Time, 2015-16 and 2016-17

	Lead Teachers				Non-Lead Teachers			
	Year 1 (n=22)		Year 2 (n=40)		Year 1 (n=21)		Year 2 (n=29)	
	n	%	n	%	n	%	n	%
I don't have enough time to complete my responsibilities	11	50%	22	55%	4	19%	6	21%
I have just enough time to complete my responsibilities	8	36%	14	35%	16	76%	16	55%
I have more than enough time to complete my responsibilities	3	14%	4	10%	1	5%	7	24%

Program directors described several strategies that they used to support productive teacher planning time including: formal or informal teacher planning teams (n=5 representing 5 communities); monthly lead

teacher meetings (n=4 representing 2 communities); and reliance on coaches to work with individual teachers on curriculum planning (n= 2 representing 2 communities). In one community, several program directors did not report any specific strategies to support productive teacher planning time.

2.5 Teacher Collaboration

All PEG lead teachers and nearly all non-lead teachers reported collaborating professionally in some way with other teachers in Year 2 (Exhibit 3.16). About half of the teachers (both lead and non-lead) reported some peer coaching. Nearly half of the lead teachers (46 percent) and one-third (34 percent) of the non-lead teachers were part of a formal collaborative network.

Exhibit 3.16: Types of Professional Collaboration among PEG Teachers, 2016-17

	Lead Teachers (n = 46)		Non-Lead Teachers (n = 38)		All Teachers (n = 84)	
	n	%	n	%	n	%
Meetings with teachers from other classrooms	35	76%	21	55%	56	67%
Informal conversations with teachers from other classrooms	30	65%	22	58%	52	62%
Peer coaching	24	52%	19	50%	43	51%
Formal network of teachers/professional learning community	21	46%	13	34%	34	40%
Peer observation and feedback	19	41%	18	47%	37	44%
No involvement in professional collaboration	0	0%	4	11%	4	5%

Among lead teachers, the most frequently reported focus of the formal collaboration was instructional planning and planning instruction to improve students’ academic growth (Exhibit 3.17). Implementation of the overall PEG model and improving teacher performance were also frequent focuses of collaboration. Making sense of assessment data was less common; it was reported by less than half of lead teachers (40 percent) and one-quarter of non-lead teachers.

Exhibit 3.17: Focus of Formal Teacher Network among Participating PEG Teachers, 2016-17

	Lead Teachers (n = 20)		Non Lead Teachers (n = 12)		All Teachers (n =32)	
	n	%	n	%	n	%
Planning for instruction	17	85%	6	50%	23	72%
Improvement in children's academic growth	17	85%	10	83%	27	84%
Implementing the PEG model	15	75%	6	50%	21	66%
Improvement in teacher performance	15	75%	8	67%	23	72%
Developing common lesson plans	13	65%	6	50%	19	59%
Improvement in children's social-emotional growth	12	60%	6	50%	18	56%
Improvement in children's classroom behaviors	11	55%	7	58%	18	56%
Teacher leadership	9	45%	3	25%	12	38%
Interpreting student assessments	8	40%	3	25%	11	34%
Understanding learning standards	8	40%	6	50%	14	44%
Supporting diverse learners (children with IEPs and English Language Learners)	8	40%	6	50%	14	44%
Reflection on desired student benchmarks	5	25%	2	17%	7	22%

3. Teacher Outcomes: Job Satisfaction and Retention

3.1 Teacher Job Satisfaction

Providing PEG teachers with salaries on par with local public school teachers is an important component of the PEG model and represents a large proportion of program costs. This section of the report describes teacher job satisfaction, including satisfaction with their salaries and teacher turnover. In a broad sense, teachers felt more satisfied with different aspects of their job in Year 2 compared to Year 1, especially in terms of their ability to teach in the program (Exhibit 4.1).

Exhibit 4.1: Comparison of Teacher Job Satisfaction from 2015-16 versus 2016-17

<i>Compared to Year 1, in Year 2 I agree that I feel...</i>	Lead Teachers (n = 41)		Non-Lead Teachers (n=27)	
	n	%	n	%
More prepared to teach in this program.	36	88%	21	78%
Like children are being better prepared for kindergarten.	29	71%	21	78%
Like things ran more smoothly.	28	68%	18	67%
More supported/equipped to deal with student poverty.	23	56%	16	59%
More supported by my administrators.	22	54%	13	48%
More supported/equipped to deal with student tardiness/absenteeism.	18	44%	9	33%

In Year 2, 23 percent of lead teachers strongly agreed and 42 percent somewhat agreed that they were satisfied with their salary, and most lead teachers (60 percent) strongly agreed with the statement that they deserved more than they are currently paid. These reports are very similar to those reported in Year 1. Of note, only 5 percent of non-lead teachers strongly agreed and 54 percent somewhat agreed that they were satisfied with their salary.

Almost all teachers were satisfied with student readiness for kindergarten and progress made during preschool. About three-quarters of PEG lead teachers were satisfied with having a coach and two-thirds were satisfied with their training.

Exhibit 4.2: Teacher Satisfaction with Aspects of the PEG Program Viewed as Important, 2016-17

<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%

Note: The items included are the six aspects of their jobs that over 80 percent of teachers rated as important.

Teachers were mixed about the supportiveness of their program leadership in helping them to be effective educators. About one-third (37 percent) of lead teacher reported that program leadership was very supportive, yet one-half of lead teachers reported that program leadership was either somewhat supportive

or neutral. Non-lead teachers were more negative, with 18 percent of non-lead teachers reporting that they felt program leadership was somewhat unsupportive of supporting them to effectively teach.

3.1.1 Correlates of Teacher Satisfaction

Exploratory analyses were also conducted to look at whether there was a relationship between teachers' job satisfaction and the level or amount of professional learning opportunities teachers experienced in Year 2. An overall measure of teacher job satisfaction was calculated by averaging teachers' ratings across six program areas. Overall job satisfaction was correlated with each of the three types of professional supports (amount of training, coaching, and paid release time) to examine whether teachers with more professional opportunities had higher job satisfaction.

There was mixed evidence about the relationship of job satisfaction and levels of professional supports, with generally positive trends but also inconsistencies. For training, teachers who reported the most training had higher average job satisfaction compared to teachers with moderate and low levels of training (Exhibit 4.3). 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 (Exhibit 4.4). The relationship of satisfaction to frequency of coaching showed a more consistent upward trend in job satisfaction (Exhibit 4.5).

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 (Exhibit 4.6). There was no difference in job satisfaction among teachers who had a few hours of release time and those with no release time.

Exhibit 4.3: Teacher Job Satisfaction by Amount of Training Received, 2016-17

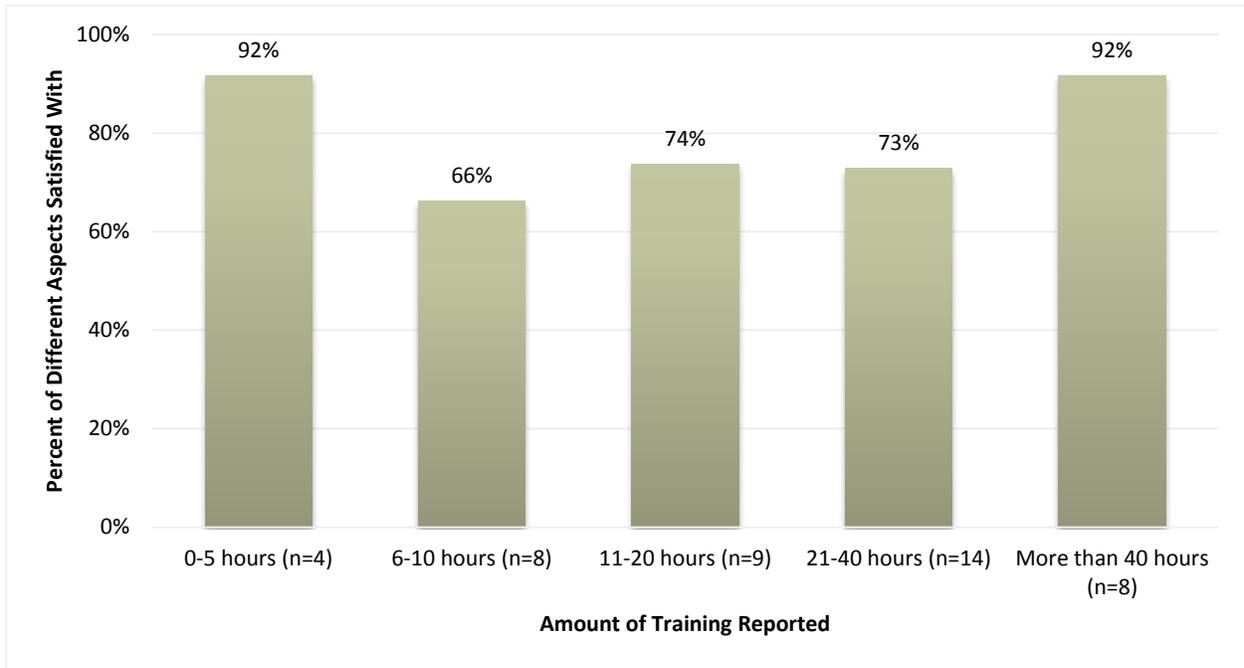


Exhibit 4.4: Teacher Job Satisfaction by Amount of Coaching Received, 2016-17

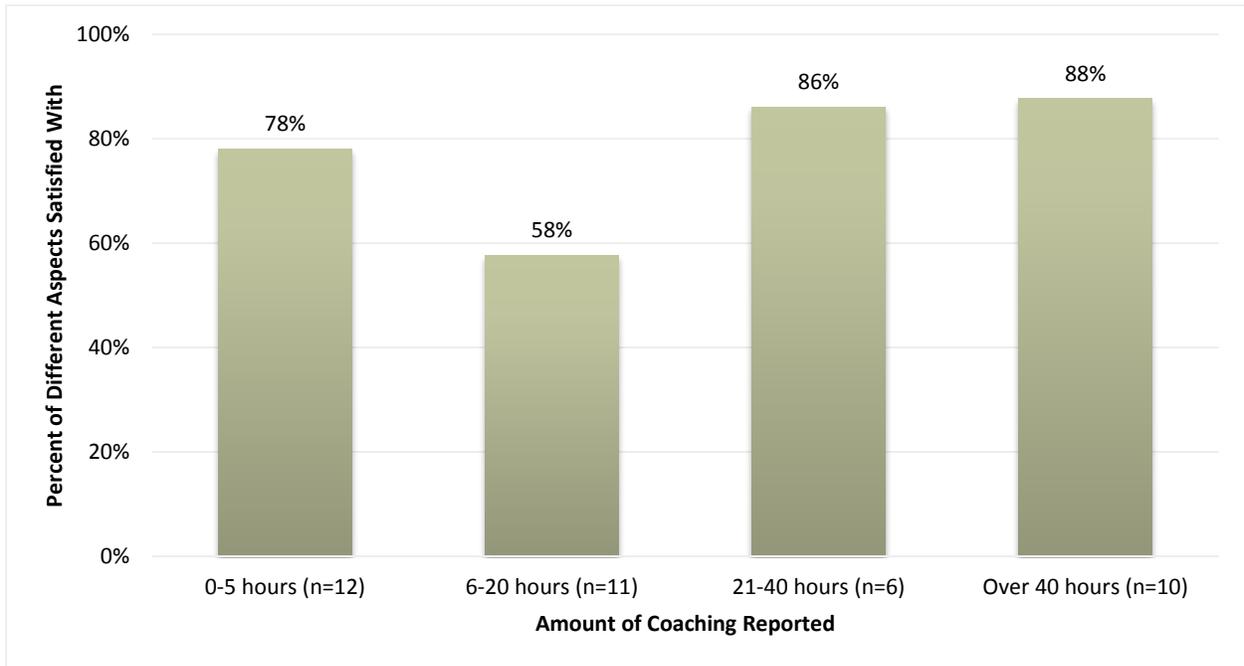


Exhibit 4.5: Teacher Job Satisfaction by Frequency of Coaching Received, 2016-17

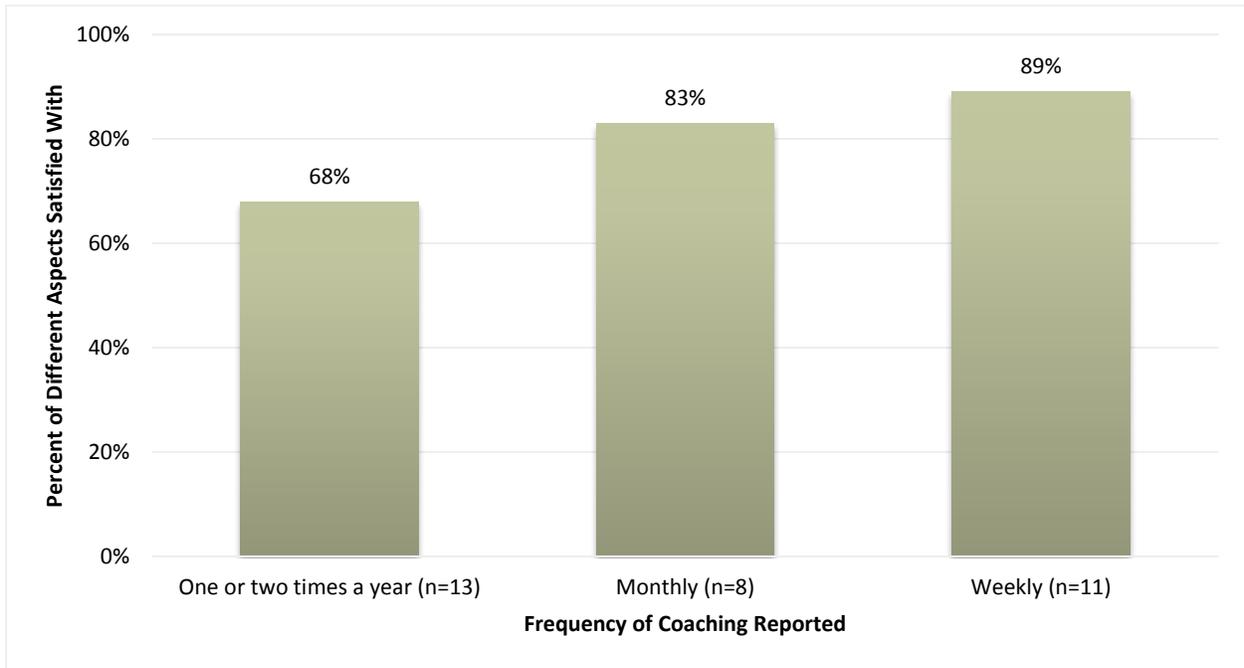
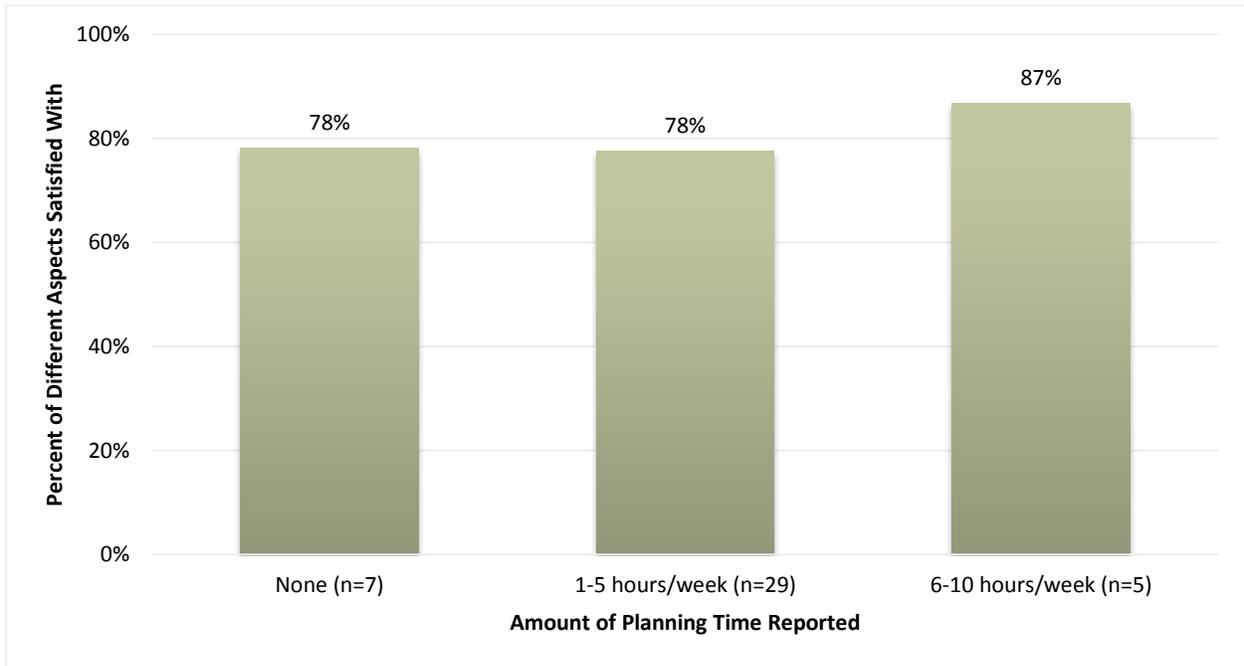


Exhibit 4.6: Teacher Job Satisfaction by Amount of Paid Release Time, 2016-17



3.2 Teacher Turnover

PEG programs retained most of their teaching staff in Year 2. The substantial majority of lead teachers (77 percent) and non-lead teachers (70 percent) continued teaching in the second year of the PEG program. Program directors reported during interviews that salaries—and the uncertain status of funding for the PEG classrooms in the future—were key drivers of teacher turnover, and believed this was mitigated only by existing relationships with program staff and occasional fringe benefits not reflected in salary levels.

Program directors also noted that a number of teachers who left the program in Year 2 left for higher-paying teaching jobs versus leaving the field for another sector.

Program directors reported that new teachers were introduced to the PEG model during orientation and familiarized with the key supports that each program was expected to provide. Staff turnover data was not tracked directly by programs, but program directors interviewed in Year 2 frequently reported that teacher turnover outpaced the program directors' ability to hire replacement teachers (especially for assistant teachers). Directors remarked that many of the same "push" factors that drove lead teacher turnover (e.g. salary, benefits) also drove turnover among the assistant teaching staff. Yet non-lead teachers reportedly did not experience some of the "pull" factors (e.g., access to extensive professional supports) that kept lead teachers at the programs. In Year 2, PEG programs sought to change this by offering more professional development and coaching to assistant teachers.

Overall, program directors' satisfaction with being able to hire the qualified staff they hoped for was 3.44 on a 5-point scale, where 5 indicated most satisfied. The level of involvement that program directors had in recruitment and hiring of staff varied between programs. Five of the program directors interviewed identified their agency's Human Resources (HR) department as the primary group responsible for hiring, recruitment, and retention processes. Three of these program directors interviewed potential candidates after HR provided them with the contact information. The remaining four directors reported relying on assistants, the district, or a supervisor for hiring, recruitment, and retention.

4. Classroom Quality Outcomes

In the winter of 2017 (February-March), data collectors conducted an observation of each PEG classroom using the Classroom Assessment Scoring System (CLASS) and the Early Language and Literacy Classroom Observation (ELLCO). The observation of each classroom began when the school day started and continued until children started naptime (typically between 8 am and 1 pm).

4.1 Findings from the CLASS Observations

The CLASS measures overall instructional quality with a focus on interactions among teachers and students in the classroom. The CLASS produces four scores: an overall score and a score for each of three domains. Each 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.

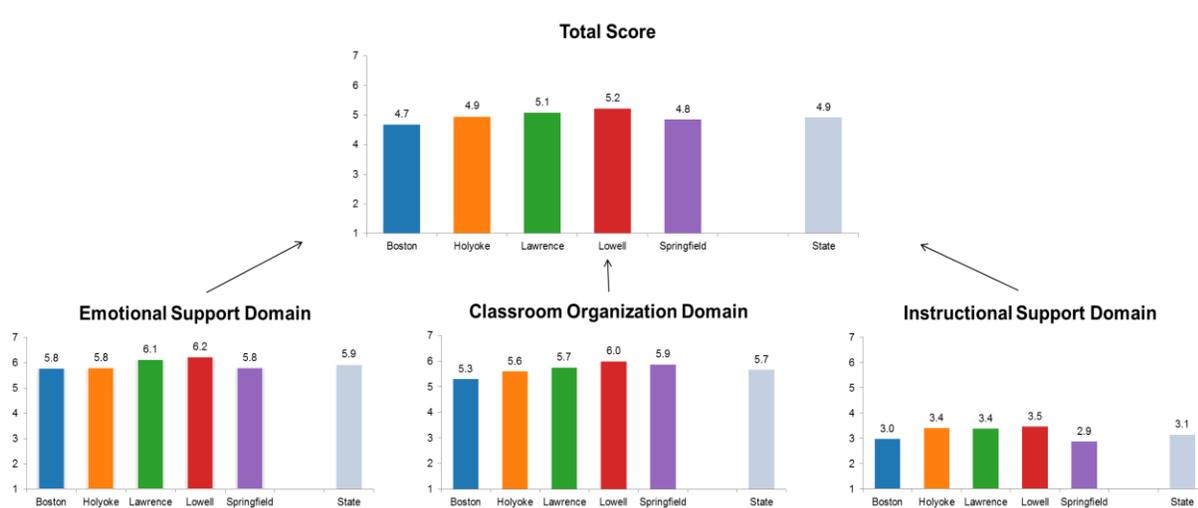
- **Total Score:** The total score combines the three domains.
- **Instructional Support Domain:** How well the teachers use instruction to help children learn. The domain has 3 dimensions: Concept Development, Quality of Feedback, and Language Modeling.
- **Emotional Support Domain:** How well teachers promote a positive climate through their interactions. The domain has 4 dimensions: Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives.
- **Classroom Organization Domain:** How well the classroom is organized to facilitate learning. The domain includes 3 dimensions: Behavior Management, Productivity, and Instructional Learning Formats.

4.1.1 Year 2 CLASS Findings

In Year 2, the total CLASS average score across all PEG classrooms was 4.9. The average scores statewide for two of the CLASS domains—Emotional Support and Classroom Organization—reflected a level of quality that was close to “high” as defined by the developers of the measure (scores of 5.9 and 5.7, respectively). The average score for Instructional Support also reflected moderate quality; although the score was substantially lower than the other two domains at 3.1, it compares favorably to other national samples of programs. Generally, scores tend to be lower on the instructional support domain compared to the other two, and scores above a 3.25 on instructional support have been found to have a positive relationship with child outcomes (Burchinal et al., 2010).

The average CLASS scores for the individual communities showed a similar pattern, with higher scores for Emotional Support and Classroom Organization than for Instructional Support (Exhibit 5.1). The average scores for the communities did not vary much for Emotional Support (averages ranging from 5.8 to 6.2); the variation in scores for Classroom Organization was greater (averages ranging 5.3 to 6.0). For Instructional Support, scores ranged from 2.9 to 3.5.

Exhibit 5.1: CLASS Average Total and Domain Scores by PEG Community and PEG Statewide, Winter 2017 (n = 48 classrooms^a)



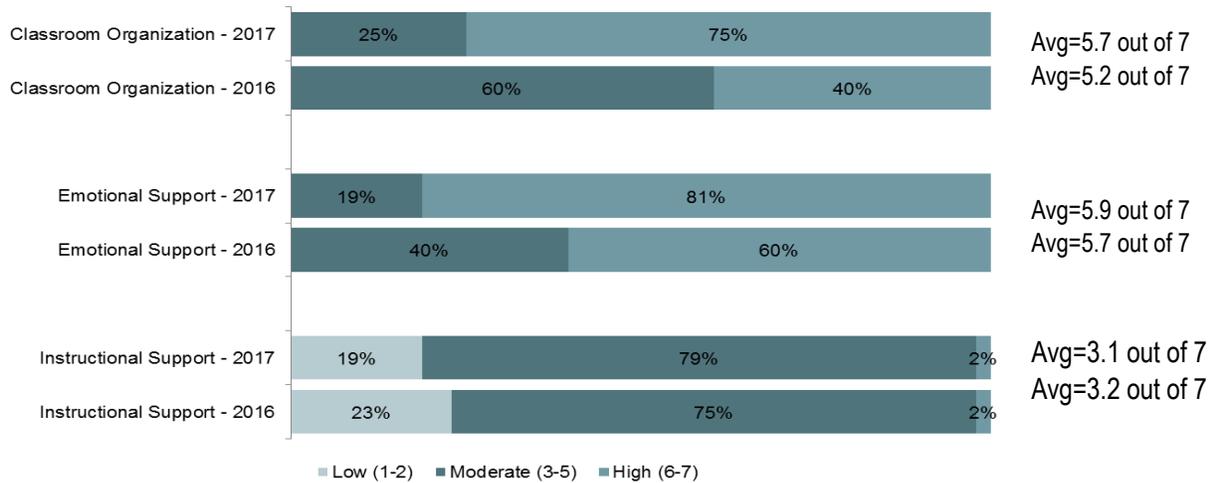
^a Boston=15, Holyoke=4, Lawrence=10, Lowell=8, Springfield=11

4.1.1 Comparison of Change in CLASS Ratings from Year 1 to Year 2

The CLASS scores improved from Year 1 to Year 2 (Exhibit 5.2).

- For Classroom Organization, 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 Emotional Support, 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 Instructional Support, 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.

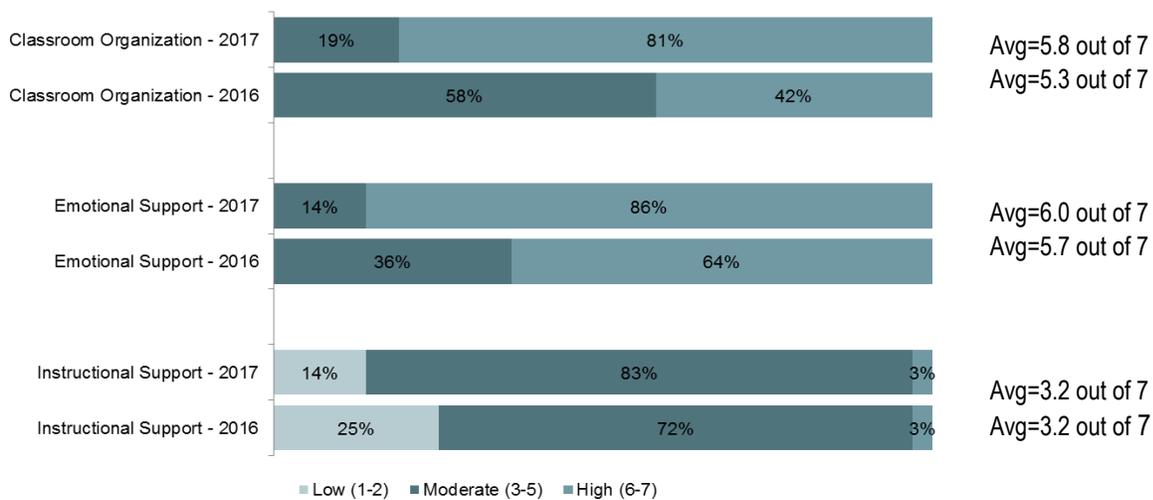
Exhibit 5.2: Percentage of PEG Classrooms in Different Quality Categories by CLASS Domain, Winter 2017 and Winter 2016, All Classrooms (n = 48 classrooms)



Note: Although the overall average score for all 48 teachers on instructional support decreased just slightly from Year 1 to Year 2, it was not a significant change, and a higher percentage of classrooms were in the “moderate” quality category and fewer were in the “low” category in Year 2, suggesting some overall improvement. Because the average instructional support scores within the “moderate” and “high” categories were slightly lower in Year 2 than in Year 1, the overall average across quality categories in Year 2, despite the upward shift of classrooms within categories.

Improved scores from Year 1 to Year 2 may reflect development over time in teachers who were there for both years. The majority of lead teachers remained from Year 1 to Year 2, and excluding new teachers from the analysis, the average scores improved on all three domains (Exhibit 5.3).

Exhibit 5.3: 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

4.2 Findings from the ELLCO Observations

The Early Language and Literacy Classroom Observation (ELLCO) measures the quality of support for language and literacy development, including support for diversity of languages, abilities, and cultures. The ELLCO produces three scores: an overall score and a score for each of two subscales. Each score ranges from 1 to 5. A score of 1 is described as “deficient” evidence of quality. A score of 2 is described as “inadequate,” a score of 3 is described as “basic,” a score of 4 is described as “strong,” and a score of 5 is described as “exemplary.”

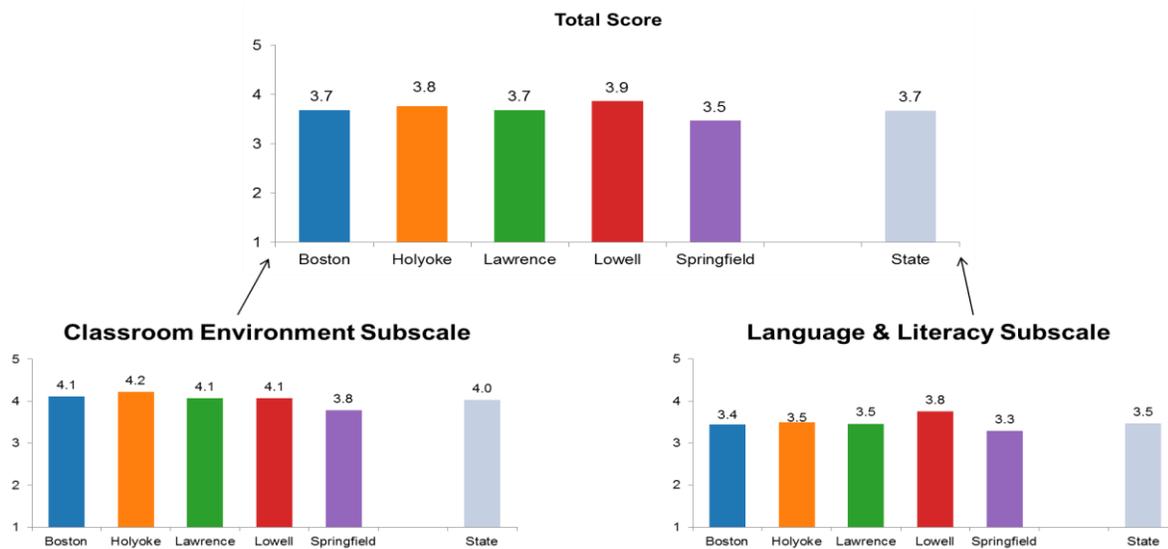
- **Total Score:** The total score combines the two subscales.
- **General Classroom Environment Subscale:** How well the classroom is organized and promotes general learning. The subscale has 2 domains: Classroom Structure and Curriculum.
- **Language and Literacy Subscale:** How teachers and students engage in literacy and language activities. The subscale has 3 domains: Language Environment, Books and Book Reading, and Print and Early Writing.

4.2.1 Year 2 ELLCO Findings

The total average Year 2 ELLCO score across PEG classrooms was 3.7. The average score for the General Classroom Environment subscale was 4.0, which represents strong level of quality. The average score for the Language and Literacy subscale was lower—3.5, representing a “basic” level of quality.

The five PEG communities did not vary widely on their average scores for General Classroom Environment (Exhibit 5.4). The average scores across the communities ranged from 3.9 to 4.3. There was more variation in the community-level scores for Language and Literacy, for which the average scores ranged from 3.3 to 3.8.

Exhibit 5.4: ELLCO Average Total and Subscale Scores by PEG Community and PEG Statewide, Winter 2017 (n = 48 classrooms^a)

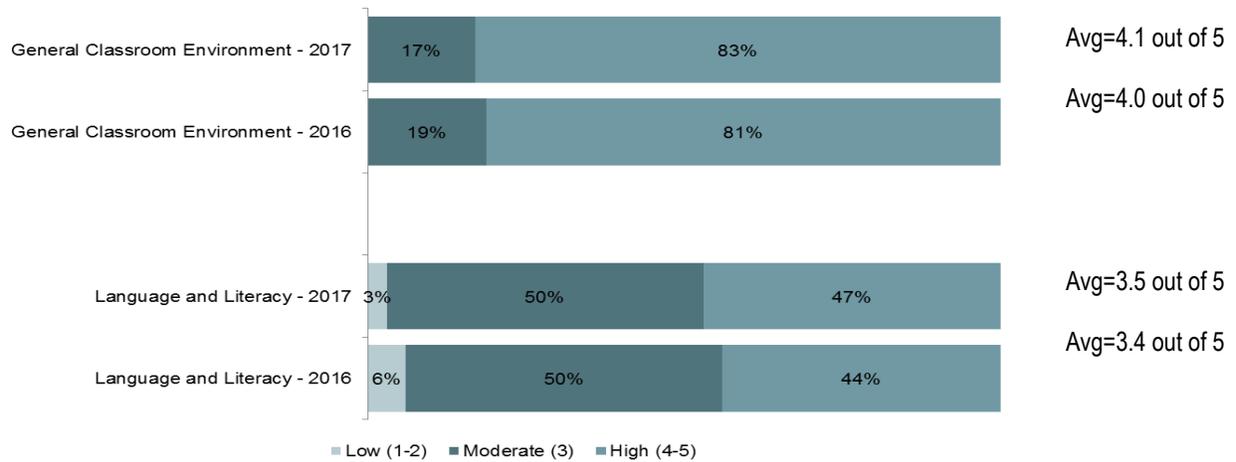


^a Boston=15, Holyoke=4, Lawrence=10, Lowell=8, Springfield=11

4.2.2 Comparison of Change in ELLCO Scores from Year 1 to Year 2

The average scores at the state level did not change from Year 1 to Year 2. Across years, for teachers who remained PEG teachers both years, most teachers were rated at the same level of quality in each year (Exhibit 5.5).

Exhibit 5.5 Percentage of PEG Classrooms in Different Quality Categories by ELLCO Subscale, Winter 2017 and Winter 2016, Classrooms with Same Teacher in 2016 and 2017 (n = 36 classrooms)



5. Findings on Family Engagement and Comprehensive Services

This chapter examines the family engagement activities offered during Year 2 of PEG implementation, based on information from interviews with family support specialists and program administrators and teacher surveys. In Year 2, parents were not asked directly about their involvement with PEG. Changes observed between Years 1 and 2 are highlighted, with a focus on Year 1 implementation challenges that were successfully addressed and challenges that persisted or were newly identified in Year 2.

5.1 Family Engagement Activities

Family engagement activities may be particularly important for PEG families because this program is often the family's first experience with formal early education. The family engagement component of the PEG model reflects the importance of the family in the child's education and learning, beginning in preschool and continuing into the child's school years. Parent engagement efforts are intended to help parents understand what and how their child is learning, as well as to help communicate ways that parents can support and extend classroom learning at home.

Effective family engagement programs are generally described as having at least a few of the following features: (a) individual contacts between the child's classroom teacher and the family, (b) multiple opportunities for parents to contribute to the program so as to appeal to parents with different levels of comfort and interest, (c) activities at the beginning of the year that introduce and orient families to the program and make them feel welcome and comfortable, (d) family events that are responsive to families' interests and needs, and (e) systems for tracking the engagement of the families so as to be able to reach out to families who are not engaging with the program (Sharpe, Davis, & Howard, 2017).

In Year 1, programs reported that their family engagement programming had not reached full implementation by the end of the year and noted that parent attendance was an issue. Although programs offered a variety of ways for parents to learn about and become involved in PEG, programs did not have systematic tracking systems in place that allowed them to document levels of family participation in different types of activities.

5.1.1 Gains in Implementation of Family Support in Year 2

Overall, family engagement was perceived as an area of improvement by a majority (65 percent) of program directors in Year 2. These program directors reported that they provided more responsive services and programs to families in Year 2 as compared to Year 1.

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

- Increased number of programs with dedicated family support staff;
- Increased coordination in family support services across programs in the same community;
- Increased consistency of individual contact with families through parent-teacher conferences with all families;
- New strategies for connecting with families that built connections among parents as well as linking parents to their child's learning and development in the classroom;
- Family events with less focus on holidays and celebrations and increased focus on educating parents about their children's classroom curriculum content and goals and parent needs; and
- Enhanced use of partnerships with local agencies and charities for parent education classes.

5.1.2 Additional Programs with Dedicated Family Support Staff

In Year 2, 11 of 16 ELPs employed family support specialists to help promote and provide education and engagement opportunities as well as connect families to needed supports. Family support specialists reported spending between 10 and 25 percent of their time on tasks other than family engagement activities and comprehensive services coordination (Exhibit 6.1). These tasks included: tracking attendance and reaching out to families whose children were absent a great deal, providing classroom behavior support, tracking child and family data, crisis management, working with children with special needs, facilitating team meetings, supporting teachers, observing children in the classroom, and assisting with enrollment.

Exhibit 6.1 Family Support Specialists’ Use of Their Time in Year 2

Community	% of Time on Family Engagement	% of Time on Comprehensive Services	% of Time on Other Job Responsibilities
Boston	10-25%	25-75%	10-50%
Holyoke	25%	50%	25%
Springfield	35%	35%	25%
Lawrence	50%	30%	20%

Note. Information about the breakdown of family support staff time in Lowell was not available during interviews.

5.1.3 Increased Community Coordination of Family Support Activities

In Year 2, there appears to have been more consistent emphasis on family supports and more coordinated community-level programming. In four communities, family support specialists operated at a community-wide level even though they were employed by a specific ELP; they coordinated efforts across ELPs to provide consistent family and community engagement activities. In the fifth community, there was less coordination across ELPs, although monthly PEG meetings were reportedly an avenue for discussions of availability of resources across the community.

5.1.4 Individual Communication with Families

Increased numbers of parent-teacher conferences. In Year 2, all PEG programs conducted at least one parent-teacher conference over the course of the school year, which was a small increase over Year 1. In both years, the majority of teachers reported conducting several conferences per year, and a small number of teachers (11 percent of lead teachers and 19 percent of non-lead teachers) reported holding monthly conferences.

Similar frequencies of home visits. Family support specialists from all five communities reported that all PEG families in their programs received at least one home visit in Year 2.⁵ Family support specialists interviewed from Lowell and the programs in Boston that had staff in this role reported that all families received at least two home visits. The first home visit, which was typically conducted near the beginning of the year, focused on getting to know parents and the child’s home environment and understanding parents’ expectations for their child and for the PEG program. When a second visit occurred, it often focused on the PEG child’s learning progress and included follow-up about any needs and questions discussed during the first visit.

Family support specialists from all five communities reported conducting home visits with the classroom teacher. The teachers often led the meeting and shared detailed information about the child and his or her

⁵ Not all PEG programs had dedicated family support specialists.

behavior and learning in the classroom with parents. The family support specialists were typically responsible for exploring family needs and strengths during the visits.

In Year 2, teachers from 18 of 26 programs reported home visits, and about 70 percent of teachers reported at least one visit per year. Of the 18 programs, 17 were from ELPs that also employed family support staff. In the programs where home visits were conducted, about 40 percent of teachers reported one home visit with each family, and one-third conducted several homes visits to each family. About half of teachers reported that the family support specialists accompanied the classroom teacher on the visits (Exhibit 6.2). There were multiple focuses to the home visits including relationship building, learning about parent expectations and the home environment, and finding out about the needs of families (Exhibit 6.3).

Exhibit 6.2: Frequency of Home Visits as Reported by Lead Teachers, 2016-17

	State (n = 40)		Boston (n = 13)		Holyoke (n = 3)		Lawrence (n = 8)		Lowell (n = 7)		Springfield (n = 9)	
	N	%	N	%	N	%	N	%	N	%	N	%
Never	10	25%	6	46%	0	0%	3	38%	0	0%	1	11%
Once a year	16	40%	3	23%	0	0%	2	25%	5	71%	6	67%
A few a year	12	30%	3	23%	2	67%	3	38%	2	29%	2	22%
As needed	2	5%	1	8%	1	33%	0	0%	0	0%	0	0%

Exhibit 6.3: Participants in Home Visits as Reported by Lead Teachers Who Conducted Visits, 2016-17

	State (n = 32)		Boston (n = 9)		Holyoke (n = 3)		Lawrence (n = 5)		Lowell (n = 7)		Springfield (n = 8)	
	N	%	N	%	N	%	N	%	N	%	N	%
Other teachers	14	44%	6	67%	2	67%	0	0%	3	43%	3	38%
Other staff	25	78%	6	67%	1	33%	5	100%	7	100%	6	75%
District staff	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	1	3%	1	0%	0	0%	0	0%	0	0%	0	0%

Exhibit 6.3: Focus of Home Visits as Reported by Lead Teachers Who Conducted Visits, 2016-17

	State (n = 32)		Boston (n = 9)		Holyoke (n = 3)		Lawrence (n = 5)		Lowell (n = 7)		Springfield (n = 8)	
	N	%	N	%	N	%	N	%	N	%	N	%
Getting to know parents	30	94%	8	89%	3	100%	5	100%	6	86%	8	100%
Informing parents about what's happening in PEG classrooms	28	88%	6	67%	3	100%	5	100%	7	100%	7	88%
Helping parents know how they can support learning at home	28	88%	6	67%	3	100%	5	100%	7	100%	7	88%
Learning about parent expectations for child	27	84%	7	78%	3	100%	5	100%	5	71%	7	88%
Understanding the home environment	26	81%	5	56%	2	67%	5	100%	6	86%	8	100%
Telling parents about opportunities to be involved in PEG	26	81%	6	67%	3	100%	5	100%	6	86%	6	75%
Finding out about services family needs	26	81%	6	67%	3	100%	5	100%	6	86%	6	75%
Learning about parent culture	24	75%	5	56%	3	100%	5	100%	4	57%	7	88%
Other	1	3%	1	11%	0	0%	0	0%	0	0%	0	0%

Other strategies for ongoing communications with families. In Year 2, programs continued to use parent drop-off and pick-up as an opportunity to connect with parents and build relationships. In Year 2, four of the five communities reported sending out a monthly newsletter with classroom and program news and parenting hints. One community reported supplementing the newsletter with a photo sharing application that teachers used to connect families to the daily activities of their children. Another community implemented a new strategy for connecting with parents by holding monthly parent coffee house meetings during which parents were invited to look at what was happening in their children’s classrooms.

5.1.5 Enhanced Programming for Family Events

In Year 2, programs continued to offer a variety of center-wide parent/family events (Exhibit 6.4). The content of the programming changed in Year 2, moving away from more traditional holiday-themed celebrations to more focused programming intended to increase parents’ capacity to support their child’s learning. New events focused on parent involvement in their child’s learning and development, such as:

- A series of events to increase fathers’ involvement;
- Events focused on what the children were learning in the classroom, including an event based on the PEG literacy curriculum and an event called “STEM to STEAM” focused on science, technology, engineering, art, and math games that could be played at home;
- A workshop to help parents integrate painting activities into their play with their children; and
- A summer safety event that included the larger community.

A second new focus of family events was addressing parent needs. One program held a resource fair to connect families to social services, employment, and GED information, and organized a series of workshops focused on resume writing, job searches, and interviewing skills.

FAMILY ENGAGEMENT AND COMPREHENSIVE SERVICES

Exhibit 6.4: Family Engagement Activities Reported by Community, 2016-17*

	Springfield	Holyoke	Boston	Lawrence	Lowell
Orientation to PEG	✓	✓	✓	✓	✓
Transition to kindergarten	✓	✓	✓	✓	✓
Holiday celebrations	✓	✓	✓	✓	✓
PEG classroom curriculum, activities	<p>PEG literacy curriculum (in collaboration with public school district) (collaborated with Holyoke)</p> <p>STEM to STEAM: science, technology, engineering, art, and math games at home (collaborated with Holyoke)</p>	STEM to STEAM events (collaborated with Springfield)	PEG curriculum		Monthly parent coffee house meetings where parents observe children's classrooms
Parent education/employment skills	Classes through a parent café format responding to interests of parents	<p>Parent workshops on resume writing, job searches, interview skills</p> <p>Resource fair for parents about social services, employment and GED opportunities</p>	Classes on ESL instruction, tax preparation	<p>Citizenship/immigration resource night (community-wide)</p> <p>Handouts and brochures about community services</p> <p>Range of classes including computer, ESL instruction through partnership with local charity</p>	<p>Parent classes/workshops on financial literacy</p> <p>Educational materials provided to parents via a resource table.</p> <p>GED classes and access to resources through a community partner.</p>
Parenting	<p>Fathers' involvement (collaborated with Holyoke)</p> <p>Integrating art activities in play at home with child</p> <p>Literacy activities in the home</p>	Fathers' involvement (collaborated with Springfield)		Parent education class on strategies for dealing with challenging behaviors	
Other	Summer safety event (collaborated with Holyoke)	Summer safety event (collaborated with Springfield)			

Note. The activities listed reflect information gathered via interviews with select program directors and family support staff, and therefore likely are not a comprehensive list of the activities offered in each community.

5.1.6 Enhanced Parent Education through Community Partnerships

In Year 2, some programs expanded their programming for parents through partnerships with community partners, including local charities that were already providing parent classes in the community on work-related topics such as building computer skills, writing resumes, and job search strategies.

5.1.7 Parent Classroom Volunteers Stayed at About the Same Level in Year 2

In Year 2, programs continued to offer parents opportunities to volunteer in the classroom, with varying degrees of success. About half of the teachers reported having had parent volunteers in classroom events on a regular basis, nearly identical to the proportion of teachers who reported the same in Year 1. In both Year 1 and Year 2, most teachers who had parent volunteers reported that it happened irregularly, i.e., a few times during the year; only 14 percent reported having a parent volunteer in the classroom at least once each month. In Year 2, half of teachers reported that fewer than 50 percent of families volunteered at some point, and only about 25 percent of teachers reported engaging 75 percent or more of the families in the classroom.

5.1.8 Outreach to Families

To remain connected to and supportive of families, family support specialists communicated with parents using a range of strategies, including flyers, e-mails, texts, newsletters, phone calls, and face-to-face conversations. Family support specialists used different strategies to recruit current families to attend engagement events and to communicate about available comprehensive services. These strategies included both word-of-mouth and face-to-face communication. In one community, the family support specialist reported making calls to parents in advance of the events to increase participation. In another community, the teachers placed brochures about events in children's backpacks and gave the children reminder bracelets the day before or the day of family engagement events.

Family support specialists in four out of five communities reported that face-to-face conversations with parents were the most successful strategy they or other staff in their program used for communicating about and recruiting participation in family engagement activities and comprehensive services. These family support specialists felt that the relationships between center staff and the parents increased parents' commitment to participate. In the fifth community, the family support specialist discussed the importance and success of increasing her availability to the families so that parents would feel comfortable and would reach out when needed.

5.1.9 Ongoing Challenges

Although PEG program staff believed that the family support activities were more organized and systematic in Year 2, this change did not seem to translate into large increases in the level of family participation. A substantial majority of lead teachers (68 percent) reported that half or less than half of families engaged in program activities.

Teachers also reported the degree to which six different challenges were present in the population of families with whom they worked (Exhibit 6.5). In general, similar percentages of lead teachers in Year 1 and Year 2 perceived these issues as presenting challenges, although a smaller proportion of lead teachers reported that lack of parental involvement was a challenge in Year 2 (9 percent versus 19 percent). About one-fifth of teachers reported that absenteeism and tardiness were serious issues in Year 2.

Exhibit 6.5: Lead Teacher Perceptions of Serious Problems Affecting PEG Children, 2015-16 and 2016-17

	Lead Teachers			
	Year 1 (n = 39)		Year 2 (n = 46)	
	n	(%)	n	(%)
Family Challenge		%		
Lack of parental involvement	6	19%	4	9%
Poor student health	2	6%	3	7%
Poverty	3	10%	4	9%
Student absenteeism	7	23%	9	20%
Student tardiness	5	16%	10	22%
Students unprepared to learn	3	9%	4	9%
Teacher absenteeism	1	3%	2	4%

In both Year 1 and Year 2, program administrators and family support specialists reported that the primary challenge with engagement was families not having time to attend events because of conflicting work and family responsibilities. Two programs reported budget constraints as a challenge for providing families with food at events; one program reported that funding from a local charitable organization was the only way that it could provide food to families. One family support specialist reported that the geographic accessibility of the events affected attendance, with 75 percent of families attending events at the center near the neighborhood in which many families lived and between 25 and 50 percent attending the less accessible location.

PEG programs did not report using formal systems for tracking communications with parents and parent participation in family activities. The lack of a central tracking system made it difficult for them to provide accurate estimates of levels of family involvement across different types of activities.

In most of the PEG programs, family support specialists wore multiple hats in terms of their responsibilities. Family support specialists played a leadership role in organizing and delivering the comprehensive services to families. Some programs also expected for the specialists to perform administrative tasks in the center where they worked and to provide coverage in classrooms. Family support specialists were often asked to participate in recruiting and enrolling new families. Other specialists operated more like social workers and were primarily involved with tasks related to the provision of comprehensive services to families, including assessing family needs, linking families with resources, tracking families’ receipt of services, and follow-up with families as needed. Some specialists also provided support directly to teachers by observing and providing feedback.

5.2 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. These specialists reported that they had stronger relationships with the parents and the community, which 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 also provided more services on-site, especially mental health support services.

Programs also used external mental health agencies and consultants to work directly with families on ways to reduce stress. One community focused specifically on counseling for families of children who had experienced trauma. In Year 2, PEG program staff also reported improved 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. The specialists identified a number of challenges faced by families, most directly related to their lack of income. PEG families were reported to frequently face unemployment, housing instability, and transportation challenges. 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 both negatively impacted the families' willingness to get involved with the PEG program and increased the likelihood of the families disappearing suddenly.

5.2.1 Assessing Family Needs

In Year 2, family support specialists in each community reported using both informal and formal methods to assess the needs of families. The informal strategies included conversations at drop-off and pick up, phone calls to families, and conversations that happened during family engagement or community events. Family support specialists reported that these methods provided information about needs that may not have been known at the beginning of the school year. Family support specialists also mentioned that as relationships were built through these informal contacts, parents felt more comfortable sharing information about their needs.

Formal strategies used to assess needs included intake or enrollment surveys, parent-teacher meetings, and home visits. For example, in one community the process of assessing family needs began during the enrollment appointment, when parents' concerns about their children were recorded. The family support specialist in this community followed up with families about these concerns by phone or during a home visit. During the home visit, the family support specialist conducted a formal Parent Interest Survey that gauged interest in family engagement activities and used a Family Assessment tool which provided information about the comprehensive services that a family might need. The Family Assessment tool asked the parents to rate how they feel about their housing, exposure to community violence, financial well-being of the family and involvement with the criminal justice system. Using this tool, the family support specialist helped families develop goals for each month of the school year. Teachers played an important role in signaling when a child may need more services by submitting a formal referral. In response to these referrals, a comprehensive services team from the school district, which included an educational therapist and behavioral support staff person, began working with the child and family.

In other communities, less systematic methods were used to learn about family needs. In these communities, parents were asked about their needs in certain areas during home visits and face-to-face meetings in the PEG classrooms.

5.2.2 Comprehensive Services Provided in PEG Communities in Year 2

A summary of some of the comprehensive services provided in Year 2 is provided below (Exhibit 6.5), followed by profiles of each of the five PEG community's approach to comprehensive services.

FAMILY ENGAGEMENT AND COMPREHENSIVE SERVICES

Exhibit 6.5: Comprehensive Services Provided by PEG Programs, 2016-17

Type	Springfield	Holyoke	Boston (Variation across ELPs)	Lawrence	Lowell
Emotional and mental health support	<p>Stress management night led by community mental health consultant</p> <p>Mental health awareness event—yoga, mindfulness training; led by consultant, who also made mental health service referrals</p> <p>Parent class on healthy relationships</p>	<p>Mental health service referrals offered for children and families</p> <p>Parent class on healthy relationships</p>	Mental health service referrals	<p>Family support specialists worked with a family service team from the community to conduct observations of specific children (with the parents' consent) and referred families to services</p> <p>Mental health team provided strategies to teachers for supporting children</p>	<p>Partnership with a local charity specializing in trauma-exposure to offer mental health services. Parents referred to this agency for counseling by teachers or the family support specialists. Agency provided support to teachers on supporting children who have experienced trauma in the classroom</p>
Physical health	Families referred to dental and medical care for the children. Vision screening for children and follow-up referrals for care	Dental and physical health referrals offered to families	Dental, vision and medical care services offered directly twice a year on site (1 ELP)		Employed a health consultant to attend to the dental and medical health needs of the children. Once time during the year outside provider of dental, vision, hearing, or medical care visited
Material support	<p>Transportation assistance to family engagement events using taxi vouchers</p> <p>Help for families in completing housing applications,</p> <p>Help connect families to outside agencies that offered free clothing or ran food kitchens or food banks</p>	Transportation assistance to family engagement events	<p>Transportation assistance to family engagement events</p> <p>Family support specialist arranged for clothing and household goods from local charities that had existing partnerships with many of the ELP agencies in community.</p> <p>Referrals for housing supports</p> <p>Housing offered to displaced persons (1 ELP)</p>	<p>Families provided with some transportation support in the form of a shuttle to take families to the program sites.</p> <p>Family support specialists brought donated clothing to the centers for PEG families to pick up and when necessary delivered food to families who struggled to get it on their own.</p>	Parents provided with clothing and shoes/boots obtained from a local charity.

Note. The services listed reflect information gathered via interviews with select program directors and family support staff, and therefore likely are not a comprehensive list of the services offered in each community.

Springfield

Springfield offered at least five different kinds of comprehensive services: emotional/mental health support, informational support, instrumental support, educational resources, and material support.

Emotional supports included a stress management night, during which parents received a stress management basket and instruction from the community's mental health consultant, and a mental health awareness event, during which parents could join a yoga session, make mindfulness charts, and complete other related activities. Child care and dinner were offered during both of these events. Parents received referrals from the mental health consultant to outside providers for individualized emotional and mental health services. The family support specialist later followed up with individual families to make sure they were in fact contacted by a provider.

The other categories of support (informational, instrumental, educational, and material) were more straightforward. Family support specialists managed and regularly updated an information table in each center with pamphlets and other media covering topics relevant to the families. Families were also provided with referrals to dental and medical care for the children. Children also had access to vision screening and were provided with breakfast, lunch, and a snack during the school day.

Classes for parents were offered through a Parent Café format during which a parent educator responded to the interests of parents to provide classes on healthy relationships and parenting. The PEG coaches also provided a class on using literacy activities in the home during a family engagement event. Lastly, this community provided families with transportation assistance to family engagement events by giving families vouchers for a taxi, help in completing housing applications, and resources to help families connect with outside agencies that offered free clothing and food banks.

Holyoke

Holyoke worked closely with Springfield, and its PEG programs therefore participated in or offered many of the same comprehensive services as described above. The primary difference between the two communities was the degree to which the ELPs worked with the school district. Holyoke had not yet developed as collaborative a relationship with their public school district partner as Springfield. This community also highlighted the importance of running mental and medical health referrals and services through the families' health insurance, in order to keep direct costs to the families for accessing these services low.

Boston

In Boston, there was less coordination across ELPs, although family support specialists and program directors shared information about other community resources for families in monthly PEG leadership meetings. Many programs offered PEG families the same comprehensive services that were available to other families attending non-PEG classrooms. Essentially, this meant that when centers were run by well-resourced ELPs with established comprehensive service practices, things went well. When they were not, outcomes were less certain.

Most PEG programs provided referrals to families for emotional and mental health support. Most programs also managed an information table that kept up-to-date by either a family support specialist on staff or by the program director. In one ELP, parents were provided with a family handbook that listed relevant information about community and agency resources in lieu of an information table. In another ELP, dental, vision, and medical care services were provided directly to children on site twice per year. Another ELP reported screening children and assisting parents in finding medical, dental, or vision care homes.

Family support specialists relied on a range of partners to provide material supports for families. Some PEG programs received clothing and household goods from local charities that they had existing partnerships with. Housing assistance was generally offered via referrals, with the exception of one ELP which was able to help offer housing for displaced families.

Lawrence

In Lawrence, the family support specialists worked with a family service team, which conducted observations of specific children (with the parents' consent) and referred families to services. This team also shared strategies for supporting children with teachers, as appropriate, and provided parents (via their children's backpacks) with educational materials based on the needs that parents communicated to family support specialists. Children were referred to an outside agency for physical and speech therapy. As was true elsewhere, programs provided children with breakfast, lunch, and a snack during the school day.

Through a partnership with a local charity, parents were offered a range of classes including computer and ESL instruction. Families were provided with some transportation support in the form of a shuttle that was available to take families to the program sites. The family support specialists also brought donated clothing to the centers for PEG families to pick up and, when necessary, delivered food to families who struggled to access it on their own.

Lowell

Lowell supported parents' emotional and mental health through a partnership with a local agency specializing in trauma exposure. Parents were referred to this agency, as necessary, for counseling by teachers or the family support specialists. This organization also provided support to teachers so that children who had experienced trauma could be better supported in the classroom. Parents were also offered classes and workshops on financial literacy, and educational materials were provided to parents via a resource table. The Lowell PEG site employed a health consultant to attend to the dental and medical health needs of the children. Once per year, a provider of dental, vision, hearing, or medical care visited the program. These resources were not directly available to parents. Breakfast, lunch and a snack were provided to PEG children. Finally, parents were provided with clothing and shoes/boots obtained from a local charity.

5.2.3 Kindergarten Transition Supports for Families

In Year 1, PEG programs offered kindergarten registration events that aligned with or were hosted by the public school district. In Year 2, these events continued. PEG programs in two communities also started to offer more targeted support to families in preparing kindergarten registration forms. Family support specialists and other available staff often sat with families and completed the registration forms together. One family support specialist mentioned that some of the documents that parents needed for kindergarten registration were already in the family's records, thus reducing the burden placed on the parents to find another copy of the child's birth certificate, for example. In one community, program directors invited kindergarten teachers to visit the PEG classrooms and arranged for some children to visit kindergarten classrooms in a nearby elementary school.

5.2.4 Comprehensive Services Challenges

In one community, providing health services was reported as a challenge because the programs did not have nurses on staff. In another community, family support specialists wished that they could offer more classes for parents (GED classes, in particular, were singled out as a need). In yet another community, housing workshops were identified as a need. While three communities reported that their collaborative relationship with the school district was strong and had improved from Year 1 to Year 2, two communities reported that this relationship remained challenging. In both communities, according to program directors, the ELPs and the school district did not yet have an effective strategy to coordinate special education screening and services.

6. Conclusions about Year 2 Implementation Progress and Looking Forward to Year 3

Overall, in Year 2 of implementation, PEG communities and programs appear to have made progress towards delivering the key quality components of the PEG model at a consistently high level.

Educator Supports and Classroom Quality

In Year 2, community and program leadership made noticeable adjustments to expand professional learning supports, such as training and coaching, and offer them more evenly across PEG lead and non-lead teachers. Also, efforts were made to adjust the focus of the professional supports to achieve more intentional alignment across different types of learning opportunities (i.e. teacher professional development and coaching) and instructional approaches (i.e., curriculum and activities). In Year 2, about half of PEG lead teachers reported participating in formal teacher networks or professional learning communities, which represents a potentially powerful avenue for sustaining improvement in programming and instruction.

One finding of particular relevance to the full implementation of the teacher support component of the PEG model is the mixed perceptions that teachers had regarding the helpfulness of the training and coaching that they received. PEG coaches themselves suggested ways that coaching might be improved in future years, based on their observations of and interactions with teachers. The recommendations from the PEG coaches are important because coaches have a unique perspective on PEG, in that they spend time in classrooms working closely with teachers and also retain a global view of the overall program model.

PEG coaches suggested during interviews that the following steps be taken:

- Allow more time and space for teachers to leave the classroom for coaching feedback and consultation sessions;
- Provide targeted training to PEG staff, including coaches, about how to work with families encountering adversity;
- Ensure that all coaches are certified in the CLASS and offer training to coaches regarding how to improve CLASS scores;
- Include more opportunities for coaches to meet and collaborate with other coaches in the state;
- Provide coaches with the opportunity to participate in teacher professional development; and
- Further increase the amount of coaching available to teachers.

A key goal of the PEG model is high quality instruction. Observations of the 48 PEG classrooms in Year 2 showed significant improvements in teachers' ability to provide emotional support to children and create productive classroom learning environments. However, the level of instructional support did not change significantly from Year 1 to Year 2. The instructional support finding suggests that there is still work to be done to identify which professional learning opportunities will significantly strengthen instructional quality (e.g., support for teachers to provide more individualized instruction). This challenge is not unique to PEG or Massachusetts, and identifying more effective strategies for building teacher capacity in this area represents an opportunity for PEG to contribute to the field more generally.

Looking forward, PEG districts and programs may want to:

- Gather more specific information from teachers on the usefulness of training and coaching and the alignment of each to teachers' individual needs for support and capacity building;
- Assess if coaches have sufficient time to coach the PEG teachers, given that many coaches have other non-PEG coaching responsibilities; and
- Consider more intensive coaching models focused on the quality of individual teacher-child interactions in the classrooms.

Family Supports

In Year 2, community and program leadership made similar efforts to try to increase the level of supports for families and to introduce more intentionality to the focus of the supports. PEG programs assigned more staff to dedicated work with families and offered more enhanced activities and services to help meet their needs. There was also more emphasis on family and child mental health and a greater number of services provided directly at program sites.

PEG programs reported focusing less on parent events and focusing more on an overall approach to building parent capacities in Year 2. These efforts were not only to increase home support for child learning and development, but also to enhance parent mental health as well as parenting skills and broader skills for the current job market. A sizeable proportion of teachers (74 percent) reported participation in home visits, which raises the potential that deeper connections are being made between PEG classrooms and homes.

The parent-program connection is an area that merits additional exploration for PEG programs. Although challenges remain with engaging and serving all families enrolled in programs, given the other demands that many PEG parents have, universal participation may be unrealistic. Yet programs should continue to be creative about ways to deliver programs and supports to parents that are flexible and responsive to different parent schedules.

To date, PEG programs report limited capacity and time to systematically track the family supports and services provided. Moving forward, EEC may want to consider providing some models for tracking systems that community and program leadership can use to more closely monitor the level of supports and services that are provided to each family and extent to which services are tailored to family needs. PEG programs may want to:

- Consider conducting regular parent satisfaction surveys, if they are not already doing so, to assess more specifically which supports and services are effective and what remaining needs exist; and
- Assess how to free up more time for family support staff to spend working with families versus focusing on other responsibilities.

A continuing theme of PEG implementation is the notable variation both across and within communities in the reach and intensity of supports for educators and for families. More needs to be learned about the extent to which variation in supports and services is based on (a) differences across programs in the intentional emphasis on different parts of the PEG model; (b) differences within programs in the level of need of individual educators and parents; and/or (c) structural and capacity challenges in fully implementing some or all of the PEG supports.

Overall, it appears that all key quality components of the PEG model are being implemented with increasing intensity. Whether or not the PEG model impacts child outcomes will be better understood in spring 2018, when impact study findings from the PEG evaluation are available.

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Appendix A: Additional Exhibits

Exhibit A.1: Hours of Training Received by Non-Lead Teachers (Not Including Individual Coaching) by Community, 2016-17

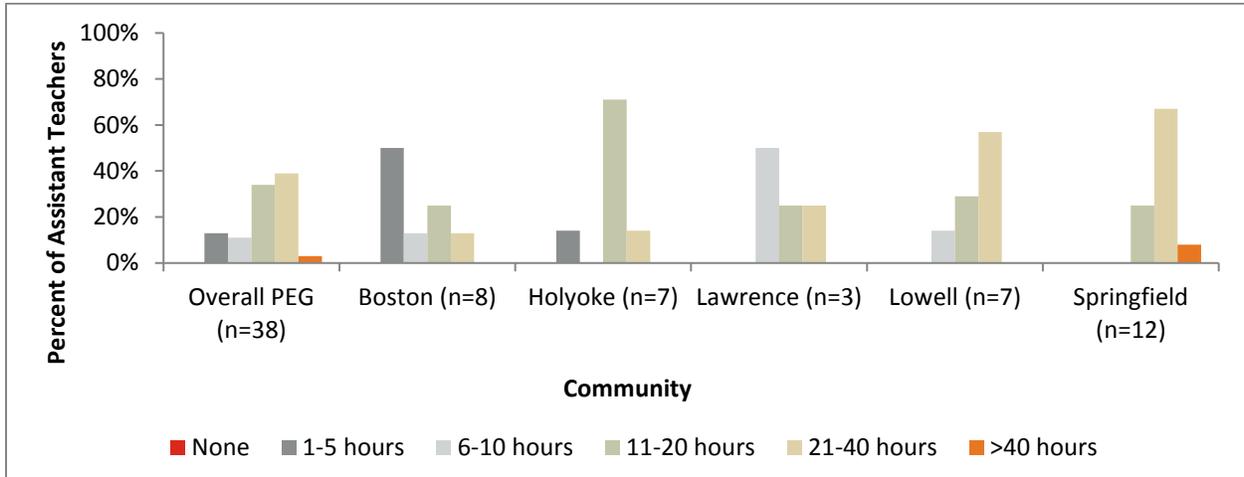


Exhibit A.2: Coaching Received by PEG Lead Teachers from Public School Coaches by Community, 2016-17

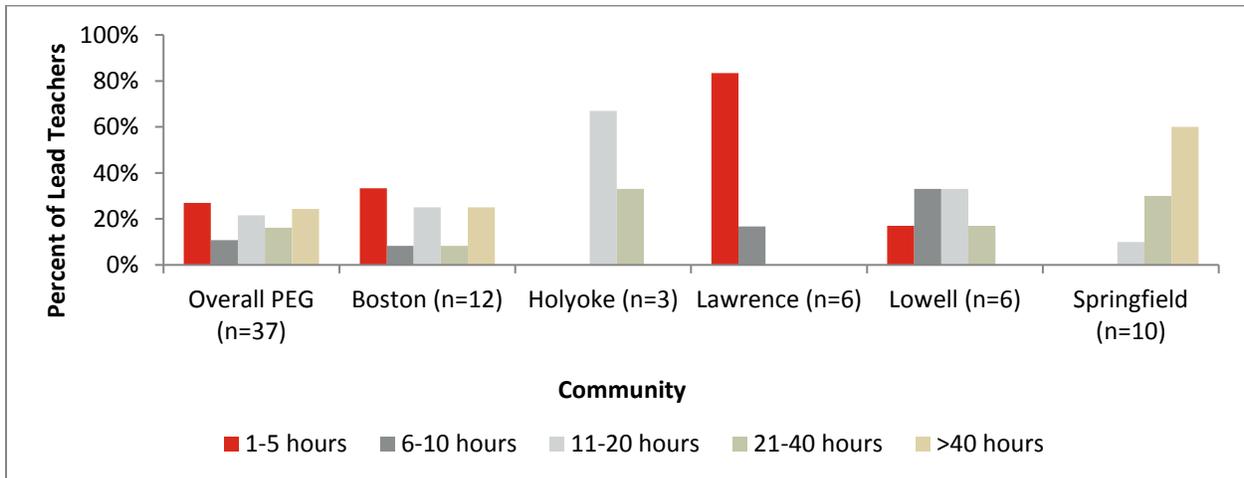


Exhibit A.3: Coaching Received by PEG Non-Lead Teachers from Public School Coaches by Community, 2016-17

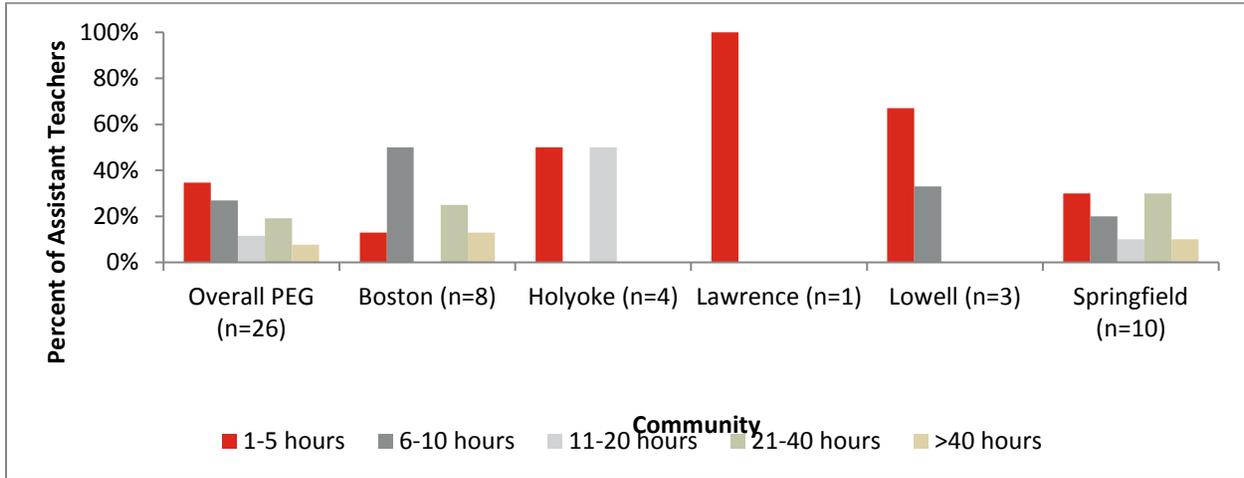


Exhibit A.4: Focus of PEG Coaching Reported by Lead Teachers by Community, 2016-17

	Boston (n=16)		Holyoke (n=3)		Lawrence (n=8)		Lowell (n=6)		Springfield (n=11)	
	n	%	n	%	n	%	n	%	n	%
General instruction	15	94%	2	67%	5	63%	6	100%	7	64%
Supporting children's literacy skills	11	69%	3	100%	5	63%	6	100%	11	100%
Supporting children's language skills	9	56%	3	100%	7	88%	4	67%	8	73%
Supporting children's social/ emotional development	11	69%	2	67%	5	63%	6	100%	7	64%
Supporting children's play	11	69%	2	67%	5	63%	6	100%	7	64%
Classroom organization and learning environment	11	69%	3	100%	4	50%	5	83%	6	55%
Supporting children's mathematics skills	9	56%	3	100%	3	38%	4	67%	9	82%
Supporting children's science concepts	5	31%	2	67%	2	25%	4	67%	8	73%
Using information from child formative assessment, screeners and assessments	5	31%	2	67%	2	25%	6	100%	3	27%
Behavior management	8	50%	2	67%	3	38%	3	50%	3	27%
Supporting English Language Learners	3	19%	2	67%	3	38%	4	67%	1	9%
Supporting children's social studies concepts	6	38%	2	67%	2	25%	2	33%	2	18%

Exhibit A.5: Total Hours of Planning Time Received by Lead Teachers in 2016-17 by Community

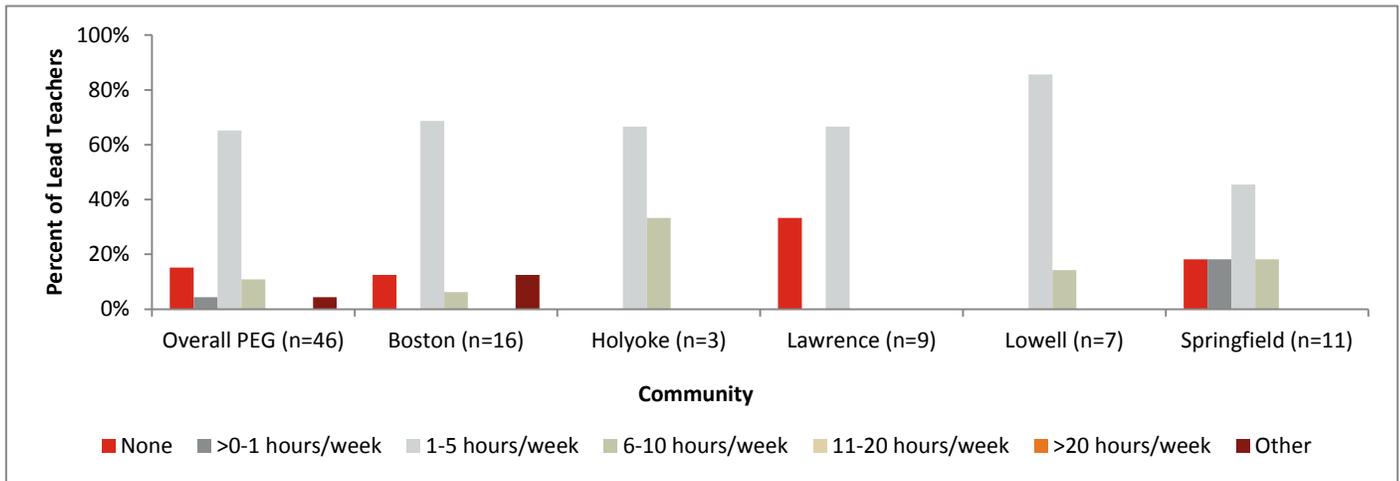


Exhibit A.6: Total Hours of Planning Time Received by Non-Lead Teachers in 2016-17 by Community

