

Preschool Expansion Grant (PEG) Evaluation Findings



Expanding Access to High Quality Prekindergarten

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 free high-quality prekindergarten. The PEG program operates in 48 classrooms in five communities (Boston, Holyoke, Lawrence, Lowell, and Springfield) and serves about 800 four-year-olds per year. PEG focuses on serving very low-income children who, with some exceptions, have never before attended a formal early education program.

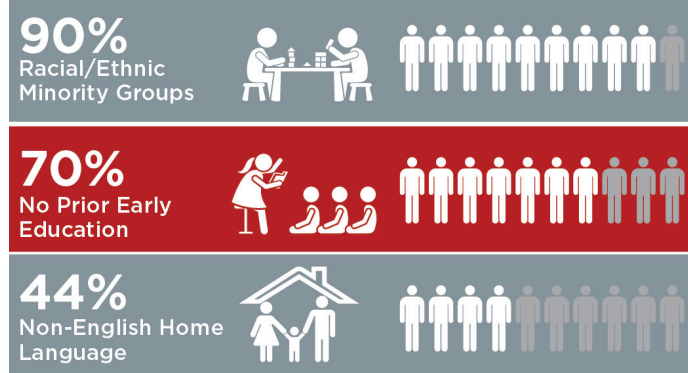
The PEG model involves collaboration between local school districts and multiple EEC-licensed programs, with classrooms run by the community-based programs. Each PEG program is expected to focus on particular quality elements that are expected to lead to improved child outcomes.

To be eligible for PEG, family income must be less than 200% of the federal poverty level. Programs prioritized children without any prior early education experience.

Key elements of the Massachusetts PEG model include:

- Curriculum aligned with MA Preschool Standards & Guidelines, and Use of Teaching Strategies Gold(C);
- Well-educated and compensated educators who receive focused professional development and coaching;
- Full-day, full-year, max class size 20, teacher-child ratio 1:10;
- Intensive supports and services for families; and
- Collaboration between the local school district and EEC-licensed programs.

Year 2 PEG Children Served

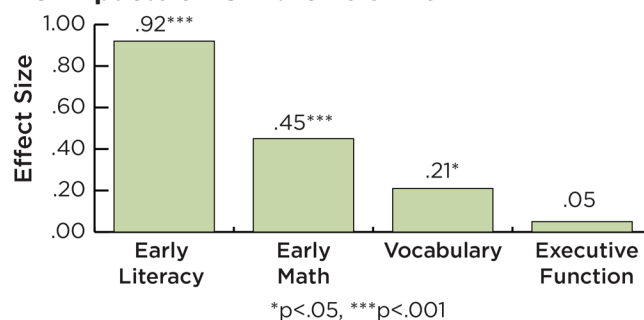


Positive Impacts on School Readiness

As part of an independent evaluation of the Massachusetts Preschool Expansion Grant by Abt Associates, an impact study was conducted to examine the impact of PEG on children's early skills. The evaluation used an age cut-off regression discontinuity design (RDD) study, a rigorous research design which compares the outcomes for a sample of children just finishing PEG (n=582) to outcomes for a different sample of children just entering PEG (n=525).

The impact evaluation found that PEG classrooms had a sizeable positive impact on children's early literacy and math skills and a smaller positive impact on vocabulary skills, thereby improving children's readiness for kindergarten (see graphic below). There was no significant impact on executive function, though it should be noted that the evaluation focused on two specific skills (inhibitory control and working memory) and did not evaluate impact on more global social-emotional functioning (which includes skills like emotional control, motivation, and organization).

PEG Impacts on Children's Skills



Notes: The measures used included: Woodcock-Johnson III Letter Word-Identification and Applied Problems subtests, the Peabody Picture Vocabulary Test – 4th edition, and the Hearts & Flowers. The impact analysis included 1107 students (582 in the treatment group and 525 in the control group). There was no significant impact on executive function, though it should be noted that the evaluation focused on two specific skills (inhibitory control and working memory) and did not evaluate impact on more global social-emotional functioning (which includes skills like emotional control, motivation, and organization).

Greater Impacts for Highest Risk Children

The study also found that the impact of PEG was greater for children at highest risk for academic failure. PEG appeared to be most effective at improving early literacy and math outcomes for children whose home language was not English and for children who had no formal early education exposure.

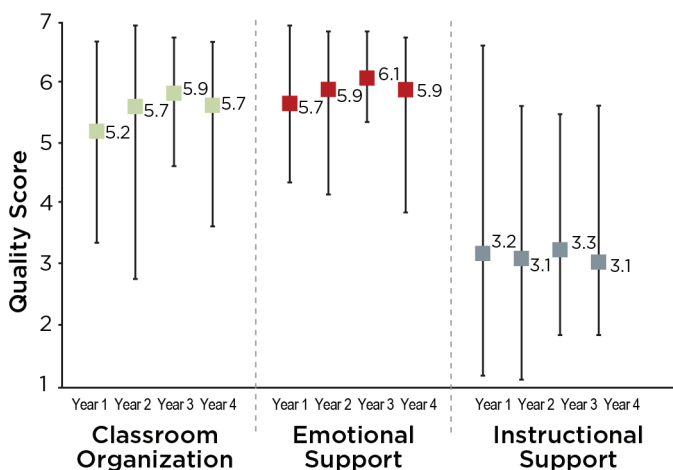
Literacy Gains Sustained Into First Grade

A longitudinal study was also conducted to track PEG children's outcomes into early elementary school. Across early academic content areas, the gap between PEG students and a nationally representative sample narrowed between the beginning of preschool and beginning of kindergarten. Significant growth in early literacy continued through the end of first grade.

Continued Growth in Classroom Quality

The continued supports for high quality classroom environments are reflected in increased CLASS scores over the 4 years of PEG. The average scores for all of the CLASS domains reflect moderate to high levels of quality as defined by the developers of the measure (3-5 reflects moderate quality, 6-7 high quality - see graph below). PEG classroom quality compares favorably to other national samples of program quality.

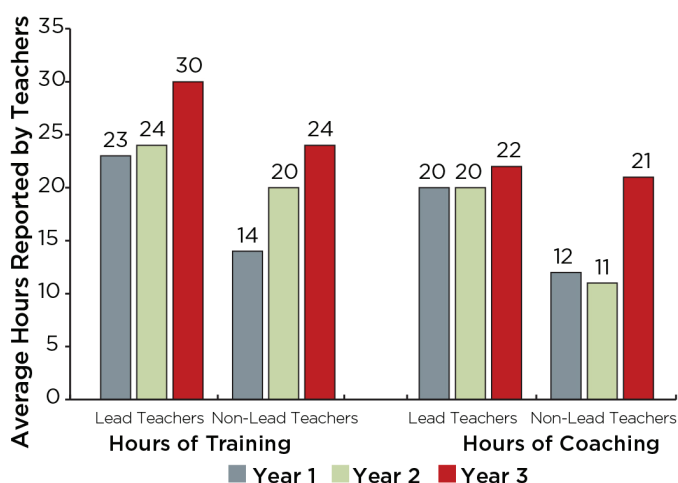
Statewide PEG Classroom Quality over Time



Note: Boxes represent average scores across PEG classrooms; vertical lines show the range in scores across the sample.

There was a movement in PEG classrooms toward more highly-educated teachers; 33% of lead teachers held master's degrees in Year 3 of the program as compared to less than one-quarter in previous years.

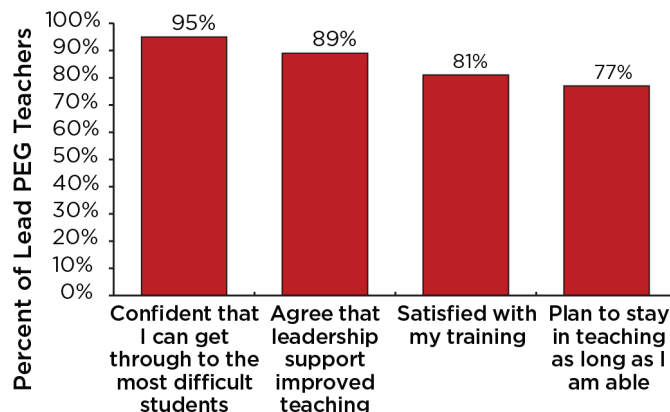
Teacher Supports



Note: The survey response rate for lead teachers was 90% (43/48).

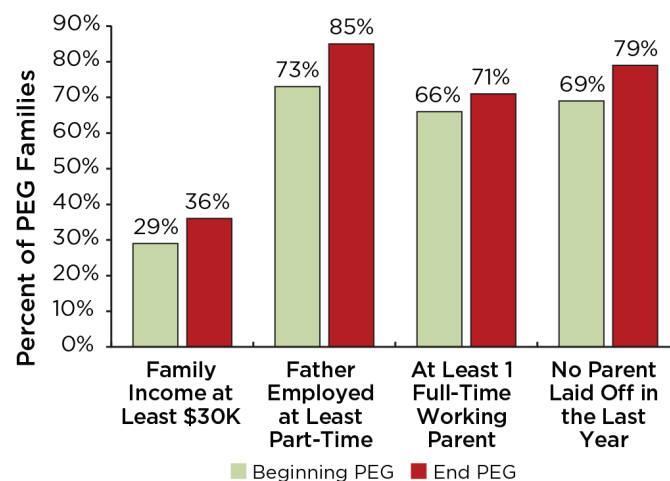
Positive Teacher Outcomes

PEG teachers reported increased supports (including training and coaching) over time. In Year 3 of the program, PEG teachers reported high levels of satisfaction with the supports provided to them and their jobs overall.



Positive Family Outcomes

At the end of the preschool year, PEG parents reported several significantly improved economic outcomes. Almost 90% of PEG parents in Year 3 reported strongly believing in the importance of their children attending school each day, both at the beginning and the end of the PEG year. Further, significantly fewer Year 2 PEG children were chronically absent in early elementary school than other low-income children in the same districts.



Note: Of the 600 surveys administered in the fall, 336 (56%) of parents responded. Of the 653 surveys administered in the spring, 349 (53%) parents responded. These findings are limited to parents who responded at both time points (at least 212 parents, although the number differed slightly by question).

Policy Implications

The PEG program demonstrated that the provision of high-quality prekindergarten through local collaboration across a mixed delivery system is both feasible and effective. The PEG evaluation findings can be used to inform Massachusetts' ongoing efforts to provide supports for educators and families as well as expand access to high-quality early education.

For additional information about the PEG program, please contact Jocelyn Bowne (Jocelyn.Bowne@mass.gov / 617-988-2431).