Enrollment rates of children in universal prekindergarten programs in Vermont in 2016/17
Kyle DeMeo Cook, Clare W. Irwin, and Audrey Gallo

Vermont passed universal prekindergarten (preK) legislation in 2014 (Act 166) in an effort to increase access to high quality preK programs for all young children in the state. Act 166 provides state funded preK to all 3 and 4 year olds (and to 5 year olds who are not eligible for kindergarten). Families can enroll their children at no cost in any prequalified preK program across the state regardless of location. To better understand implementation of Act 166, Vermont requested a study that describes the relationship between the characteristics and location of preK children and their enrollment by type of preK program (public school program within or outside the boundaries of a child’s local education agency and private childcare center or family childcare home within or outside the boundaries of a child’s local education agency) and state assessed program quality. The study found that in 2016/17, the first year of full implementation, preK children with an individualized education program and children eligible for the national school lunch program were more likely than their counterparts to be enrolled in a public school program and in a program with a higher quality rating. While most children were enrolled in a program within the boundaries of their local education agency, that was more likely for children with an individualized education program and children eligible for the national school lunch program.

Why this study?

Vermont passed universal prekindergarten (preK) legislation (Act 166) in 2014 in an effort to increase access to high-quality preK programs for all young children in the state. Act 166 provides state-funded access to prequalified preK programs for all 3- and 4-year olds (and to 5-year-olds who are not eligible for kindergarten) through a mixed-delivery system of public and private providers at no cost to families. Families may enroll their children in any of the following prequalified programs across the state regardless of location:

• Public school preK program within the boundaries of a child’s local education agency.
• Public school preK program outside the boundaries of a child’s local education agency.
• Private childcare center or private family childcare home within the boundaries of a child’s local education agency.
• Private childcare center or private family childcare home outside the boundaries of a child’s local education agency.

To become a prequalified preK provider, a program needs to receive a rating of at least three out of five stars on the STep Ahead Recognition System (STARS), the state’s quality rating and improvement system (Vermont General Assembly, 2014; see appendix A for information on STARS) and meet additional educator qualification criteria. The STARS requirement is consistent with the literature

1. Local education agencies in Vermont are called supervisory unions.
pointing to the importance of preK program quality in ensuring positive outcomes for children (Zaslow et al., 2010). However, there are potential differences in the quality of learning experiences across the three top STARS ratings (see table A1 in appendix A). Act 166 provides families with multiple options for enrolling their children in universal preK, posing questions about whether child and geographic characteristics are associated with enrollment in different program types or programs at different STARS ratings.

Vermont is committed to making evidence-based decisions as the state implements and refines its universal preK program. The Regional Educational Laboratory Northeast & Islands partnered with the Vermont Agency of Education and the Agency of Human Services to address questions about enrollment patterns in universal preK. This study uses data from the 2016/17 school year, the first year of implementation of universal preK, to understand the characteristics of children in different preK program options (public or private and quality level), whether they are enrolled within or outside the boundaries of their local education agency, and the factors related to enrollment in particular program options.

Since families may enroll their children in any prequalified preK program, enrollment patterns provide important information about how families are using universal preK. In particular, the results will support Vermont Agency of Education, Vermont Agency of Human Services, and the legislature as they consider changes to families’ options about where they may enroll their children in preK. For example, in 2017 and 2018 the legislature heard testimony about whether it is appropriate to prequalify three-star programs. Before making changes to program eligibility, Vermont seeks to understand which program types families are choosing and whether certain groups of children, particularly children with an individualized education program and children eligible for the national school lunch program, are more likely to be enrolled in specific types of preK programs or programs of higher or lower quality. This understanding can inform decisions on whether the current approach to implementing universal preK has unintended consequences.

This study also helps fill the information gap for states and communities across the country that are implementing or planning to implement universal or other state-funded preK systems, because enrollment patterns in a universal, choice-based preK system have not yet been studied (see appendix A for related literature). Understanding whether the characteristics of children enrolled in preK in Vermont are associated with the location, type, and quality of the preK programs in which they are enrolled may help other states decide how to implement their own preK systems.

**Research questions**

This study addressed three research questions related to the enrollment patterns of children in universal preK programs in Vermont in 2016/17, the first year of full implementation:

1. To what extent were preK children with different characteristics enrolled in public school programs, private programs, and programs at each STARS quality rating?

2. To what extent were preK children enrolled in a program within the boundaries of their local education agency?

3. After other characteristics are controlled for, which characteristics of preK children are associated with the likelihood of being enrolled in a public school program rather than a private program, a five-star program rather than a three- or four-star program, and a program within rather than outside the boundaries of a child’s local education agency?
Box 1. Key terms used in this report

**Analysis of variance.** A way to analyze the differences among group means in a sample. In this study, analysis of variance was used to compare the average estimated distance to prekindergarten (preK) programs of different types from a child’s zip code of residence.

**Chi-square test.** A statistical test used to identify any significant differences between expected frequencies and the observed frequencies in one or more categories. In this study chi-square tests were used to determine whether there were differences in enrollment rates between public school programs and private programs based on a child’s age.

**Eligible for the national school lunch program.** A proxy for children from low-income households.

**Family childcare home.** A private, registered early education provider in a Vermont home-based setting.

**Individualized education program.** The Individuals with Disabilities Education Act requires education institutions, in collaboration with parents (and older students), to tailor an individualized education program for each student with a disability that meets the unique needs of that student, including preschool children.

**Labor market area.** Vermont’s 20 labor market areas are defined by combining population data and commuting patterns (Vermont Department of Labor, 2015). (See table B5 in appendix B for a full list of Vermont labor market areas.)

**Local education agency.** Local education agencies in Vermont are called supervisory unions. There are 57 local education agencies in Vermont. (See box B1 in appendix B for a full list of Vermont local education agencies.)

**Logistic regression.** Analysis method used to describe the relationship between one or more predictor variables and an outcome variable that can take on one of two values, such as “yes” or “no.” In this study, logistic regression is used to examine child characteristics and their association with the likelihood of a child enrolling in a public school program compared with a private program.

**Mixed-delivery system.** Vermont provides preK through a system of different kinds of providers, including public schools; private, center-based programs; and family childcare homes.

**Prequalified preK program.** An early childhood provider that has applied to become a universal preK provider and has met several criteria for providing state-funded preK in Vermont, including a minimum STep Ahead Recognition System (STARS) rating of three stars and several other indicators of quality such as minimum education requirements for teachers (Vermont General Assembly, 2014).

**Private childcare center.** A private, licensed early education provider in a Vermont center-based setting.

**Public school program.** A public early education provider in a Vermont public school setting.

**STep Ahead Recognition System (STARS).** Vermont’s quality rating and improvement system. Prequalified preK programs must receive at least three stars on the five-star rating scale. Programs can be awarded up to 17 points across five areas of recognition. A program must obtain at least 9 points to be awarded three stars, at least 12 points to be awarded four stars, and at least 15 points to be awarded five stars (Vermont Department of Children and Families website, http://DCF.vermont.gov/childcare/providers/stars, retrieved December 3, 2018).
Box 2. Data sources, sample, methods, and limitations

Data sources. The study used data provided by the Vermont Agency of Education (AOE), publicly available census files, and geographic data. The Vermont AOE provided data on prekindergarten (preK) children’s characteristics and on preK program level (see table B4 in appendix B for a list of all variables). Child characteristics include individualized education program status, national school lunch program eligibility status, age cohort, and number of prequalified programs within the boundaries of the child’s local education agency. PreK program-level data include program type (public school or private childcare centers or family childcare homes), quality rating, and the local education agency and labor market area in which the program is located. Because there were few family childcare homes in the study sample (n = 46), private family childcare homes and private childcare centers were combined into one group of private programs.

Sample. In 2016/17 approximately 8,600 children were enrolled in 383 state prequalified preK programs in Vermont. The sample for this study included 5,622 children who were residents of Vermont and enrolled in 282 state prequalified preK programs in the 2016/17 school year. Families enroll children in state preK at their local education agency. Since enrollment forms did not specify which prequalified preK program children had enrolled in the Vermont AOE matched children’s program of enrollment to their demographic and other data through the online assessment system used by early childhood programs for children in their program.

Children were excluded from the sample if the Vermont AOE could not match them to the preK program in which they were enrolled or to their district of residence through the online assessment system; 65 percent of preK children were matched. Thus, the analytic sample of programs and children is smaller than the population of programs and preK children in 2016/17 (appendix B provides more information on Vermont’s matching process).

In the sample, 97 percent of preK children were White, 53 percent were male, 33 percent were eligible for the national school lunch program, and 13 percent had an individualized education program (see table B1 in appendix B). As of September 1, 2016, 43 percent of children were 3-year-olds, 55 percent were 4-year-olds, and 2 percent were 5-year-olds.

Several comparisons of student characteristics were conducted to better understand the representativeness of the study sample and thus to highlight the degree to which findings can be generalized to the population of children attending preK in 2016/17. The sample had small but statistically significantly higher percentages of children who were White (97 percent) than the population of children attending preK (96 percent) and of children eligible for the national school lunch program (33 compared with 31 percent; see table B1 in appendix B). The study sample also had a statistically significantly lower percentage of three-star programs and a higher percentage of five-star programs than the population of all prequalified programs (see table B3 in appendix B), most likely because the matching was done using an assessment system with which higher-rated programs may have been more familiar. Using an assessment system is one way in which programs can get more points toward a higher STARS rating. How differences between the sample and the full population of preK students in Vermont might affect the interpretation of the study results is discussed in the Limitations section below.

Methodology. For research question 1 on the extent to which preK children with different characteristics were enrolled in public school programs, private programs, and programs at each quality rating on the STep Ahead Recognition System (STARS), the study team conducted descriptive analyses, including calculating means, standard deviations, and percentages. For research question 2 on the extent to which preK children were enrolled in a program within the boundaries of their local education agency, the study team determined whether a program was located within the boundaries of the child’s local education agency and calculated the percentages of children enrolled in programs within and outside the boundaries of their local education agency. Next, the number of prequalified preK programs within the boundaries of each child’s local education agency was calculated, and the average numbers were reported. One-way analysis of variance or chi-square analyses were conducted to assess statistically significant differences (p < .05) among groups in the descriptive findings. For research question 3 the study team estimated three logistic regression models on the association between child characteristics and the likelihood of each of three outcomes:

- Enrolling in a public school program versus a private program.
- Enrolling in a five-star program versus a three- or four-star program.
- Enrolling in a program within the boundaries of the child’s local education agency versus a program outside those boundaries (see methods in appendix B).

Limitations. A primary limitation of this study is that the association between child characteristics and enrollment is correlational, so a child’s characteristics cannot be assumed to cause a family to enroll a child in a particular preK program. In addition, the study
sample did not include all 3- to 5-year-olds in Vermont or all children who were enrolled in state-funded preK in 2016/17. Because Vermont matched children’s program of enrollment to the state’s census data using the online assessment system (resulting in a match for 65 percent of the preK population), the matched children were potentially more likely to be in a program that uses the online assessment system; there may be systematic differences between programs that use the assessment system and report higher quality data and those that do not use the system. For example, there were more five-star programs and fewer three-star programs in the study sample than in the population of all prequalified programs. While all preK programs are required to use the assessment system, the data were from the first year of full implementation of Act 166. Programs previously unfamiliar with the system or for which assessments were a new program component might not yet have begun using the system during this first year.

A lack of available data on age-eligible children who were not enrolled in the universal preK program precludes a comparison of children who were enrolled in a preK program with those who were not. Finally, Vermont does not collect data on all child characteristics that may be related to enrollment or on why families make specific enrollment decisions. Nonetheless, the study results can inform decisions about changes to Vermont’s preK legislation.

Findings

To what extent were prekindergarten children with different characteristics enrolled in public school programs, private programs, and programs at each STARS quality rating?

PreK children were enrolled in public school programs (49 percent) and private programs (51 percent) at similar rates. Families in Vermont can enroll their preK children in either a public school program or a private program, making it important to understand enrollment rates across program types.² Overall, preK enrollment was approximately evenly split between public school and private programs (figure 1).

Figure 1. While prekindergarten enrollment in Vermont was approximately evenly split between public school programs and private programs, enrollment was higher in programs with the highest quality rating and in programs within a child’s local education agency boundaries, 2016/17

<table>
<thead>
<tr>
<th>Program type</th>
<th>STARS® quality rating</th>
<th>Location</th>
<th>Percent of children (n = 5,622)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public school program</td>
<td>49</td>
<td>Within local education agency</td>
<td>83</td>
</tr>
<tr>
<td>Private program</td>
<td>51</td>
<td>Within local education agency</td>
<td>83</td>
</tr>
<tr>
<td>Three-star program</td>
<td>3</td>
<td>Outside local education agency</td>
<td>17</td>
</tr>
<tr>
<td>Four-star program</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five-star program</td>
<td>61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Includes private childcare centers and family childcare homes.
b. STARS is Vermont’s STep Ahead Recognition System quality rating and improvement system.

Note: Percentages may not sum to 100 because of rounding.

Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.

2. Tests of statistical significance were conducted, and all differences discussed in the report were found to be statistically significant at $p < .05$. 

REL 2020–015 5
A majority of preK children were enrolled in a five-star program, the highest program quality rating. All prequalified preK programs in Vermont must have a rating of three to five stars on the state’s STARS quality rating and improvement system. Overall, 61 percent of preK children were enrolled in a five-star program, 35 percent in a four-star program, and 3 percent in a three-star program (see figure 1). Additional breakdowns are provided in table C5 in appendix C.

**To what extent were prekindergarten children enrolled in a program within the boundaries of their local education agency?**

Most preK children were enrolled in a program within the boundaries of their local education agency. Families in Vermont can enroll their preK children in either a public school program or a private program and either within or outside the boundaries of their local education agency. About 83 percent of preK children were enrolled in a program within their local education agency boundaries (see figure 1). In addition, most children (95 percent) were enrolled in a program within the boundaries of their labor market area (see table C8 in appendix C).

PreK children who were enrolled in a three-star program had an average of two fewer prequalified programs available within the boundaries of their local education agency than did children enrolled in a four- or five-star program. On average, parents could choose among nine prequalified preK programs within the boundaries of a child’s local education agency (figure 2). The number of prequalified programs varied by local education agency, ranging from zero to 23, and by program type (see table C7 in appendix C and table D1 in appendix D). Children who were enrolled in a private program had the highest average number of prequalified programs within the boundaries of their local education agency (10). Children who were enrolled in a program outside the boundaries of their local education agency had the lowest average number (7).

PreK children who were enrolled in a three-star program had an average of almost two fewer prequalified programs available to them within the boundaries of their local education agency than did children who were enrolled in a four- or five-star program (see figure 2). Further, 241 children in the sample (4 percent) had no prequalified

---

**Figure 2. Prekindergarten children who were enrolled in a public school program, a three-star program, or a program outside the boundaries of their local education agency had fewer programs within the boundaries of their local education agency, 2016/17**

- **All programs (n = 5,622)**
  - Public school program (n = 2,759)
  - Private program* (n = 2,863)
  - Three-star program (n = 192)
  - Four-star program (n = 1,983)
  - Five-star program (n = 3,447)
  - Within local education agency (n = 4,665)
  - Outside local education agency (n = 957)

- **Average number of prequalified within-boundary programs**

  - 8.9
  - 7.5
  - 10.3
  - 7.4
  - 9.0
  - 9.0
  - 9.3
  - 7.2

---

*a. Includes private childcare centers and family childcare homes.

b. STARS is Vermont’s Step Ahead Recognition System quality rating and improvement system.

Note: All comparisons of the average number of prequalified preK programs, except between four- and five-star programs, were statistically significant at p < .05 (between public school and private providers, between the average number of programs within and outside local education agency boundaries, between three-star programs and four-star programs, and between three-star programs and five-star programs). See table C1 in appendix C for more information.

Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.
preK programs within the boundaries of their local education agency (see tables C1 and C7 in appendix C for more information on location).

**After other characteristics are controlled for, which characteristics of prekindergarten children are associated with the likelihood of being enrolled in a public school program rather than a private program, a five-star program rather than a three- or four-star program, and a program within rather than outside the boundaries of a child’s local education agency?**

**PreK children with an individualized education program and children eligible for the national school lunch program were more likely than their counterparts to be enrolled in a public school program.** Enrollment in a public school preK program was higher for children with an individualized education program (64 percent) than for children without one (47 percent; figure 3). Similarly, preK children who were eligible for the national school lunch program were enrolled in a public school program at a higher rate (64 percent) than children who were not eligible (42 percent). A higher percentage of 4-year-olds (53 percent) than of 3-year-olds (44 percent) were enrolled in a public school program (figure 4). The enrollment of 5-year-olds was evenly split between public school and private programs.

Regression analyses confirmed these patterns (see table C9 in appendix C). PreK children with the following characteristics were statistically significantly more likely to be enrolled in a public school program than a private program:

- With an individualized education program.
- Eligible for the national school lunch program.
- Age 4 or 5 years old.\(^3\)
- With fewer prequalified preK programs within the boundaries of the child’s local education agency.

**Figure 3. Compared with their counterparts, prekindergarten children in Vermont with an individualized education program and children eligible for the national school lunch program were more likely to be enrolled in a public school program, 2016/17**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Public School Program (%)</th>
<th>Private Program (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized education program (n = 731)</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td>No individualized education program (n = 4,891)</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Eligible for the national school lunch program (n = 1,852)</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td>Not eligible for the national school lunch program (n = 3,770)</td>
<td>42</td>
<td>58</td>
</tr>
</tbody>
</table>

Note: Because the number of children enrolled in certain program types was small, some categories were collapsed for this analysis. Public school programs include programs within and outside the boundaries of the local education agency. Private programs include private childcare centers and family childcare homes within and outside the boundaries of the local education agency. There was a statistically significant difference (at p < .05) in enrollment in public school programs compared with private programs between children with an individualized education program and those without one and between children eligible for the national school lunch program and those not eligible. See table C2 in appendix C for more information.

Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.

\(^3\) For regression analyses, categories for 4- and 5-year-olds were collapsed into one group because of the small number of 5-year-olds.
Overall, these findings indicate that greater proportions of preK children with an individualized education program and children eligible for the national school lunch program are enrolled in a public school program than in a private program.

**PreK children with an individualized education program and children eligible for the national school lunch program were more likely than their counterparts to be enrolled in a five-star program.** Among preK children with an individualized education program, 69 percent were enrolled in a five-star program, 30 percent in a four-star program, and 2 percent in a three-star program (figure 5). Patterns were similar for children eligible for the national school lunch program, with 64 percent enrolled in a five-star program and 35 percent in a four-star program. By age, a majority of 3- and 4-year-olds (62 percent) were enrolled in a five-star program and the rest (approximately 35 percent) in four-star programs (figure 6).

Regression analyses indicated that having an individualized education program was the only characteristic that was statistically significantly associated with enrollment in a five-star program rather than a three- or four-star program.4 Children with an individualized education program were significantly more likely (40 percent more likely) than children without one to be enrolled in a five-star program (see table C10 in appendix C).

**PreK children with an individualized education program and children eligible for the national school lunch program were more likely than their counterparts to be enrolled in a program within the boundaries of their local education agency.** Enrollment in programs within the boundaries of the local education agency was higher among preK children with an individualized education program (90 percent) than among children without one (82 percent; figure 7). Similarly, enrollment was higher among preK children eligible for the national school lunch program (94 percent) than among children not eligible (77 percent). Across the three age cohorts preK children were

---

4. For regression analyses, categories for 4- and 5-year-olds were collapsed into one group because of the small number of 5-year-olds.
Figure 5. A majority of prekindergarten children in Vermont, regardless of demographic characteristics, were enrolled in a five-star program, 2016/17

<table>
<thead>
<tr>
<th>Individualized education program (n = 731)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>30</td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No individualized education program (n = 4,891)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>36</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eligible for the national school lunch program (n = 1,852)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>35</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not eligible for the national school lunch program (n = 3,770)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>36</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Note: Percentages may not sum to 100 because of rounding. There was a statistically significant difference (at \(p < .05\)) in enrollment in programs at each quality rating between children with an individualized education program and those without and between children eligible for the national school lunch program and those not eligible. See table C3 in appendix C for more information.

Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.

Figure 6. A majority of 3- and 4-year-olds in prekindergarten in Vermont were enrolled in a five-star program, while 5-year-olds were evenly split between four- and five-star programs, 2016/17

<table>
<thead>
<tr>
<th>3-year-olds (n = 2,444)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>35</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4-year-olds (n = 3,084)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>35</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5-year-olds (n = 94)</th>
<th>Three-star program</th>
<th>Four-star program</th>
<th>Five-star program</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>46</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Note: Percentages may not sum to 100 because of rounding. Differences in enrollment by age cohort were not statistically significant. See table C3 in appendix C for more information.

Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.

enrolled in a program within the boundaries of their local education agency at similar rates (82–84 percent; figure 8).

Regression analyses confirmed these findings and also revealed that preK children with more prequalified preK programs within the boundaries of their local education agency were statistically significantly more likely to be enrolled in a program within their local education agency than outside it (see table C11 in appendix C).
Figure 7. Compared with their counterparts, higher percentages of prekindergarten children in Vermont with an individualized education program and children eligible for the national school lunch program were enrolled in prekindergarten programs within the boundaries of their local education agency, 2016/17

<table>
<thead>
<tr>
<th>Category</th>
<th>Within local education agency (%)</th>
<th>Outside local education agency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized education program (n = 731)</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>No individualized education program (n = 4,891)</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>Eligible for free or reduced-priced lunch (n = 1,852)</td>
<td>94</td>
<td>6</td>
</tr>
<tr>
<td>Not eligible for free or reduced-priced lunch (n = 3,770)</td>
<td>77</td>
<td>23</td>
</tr>
</tbody>
</table>

Note: There was a statistically significant difference (at p < .05) in enrollment within and outside the boundaries of a child’s local education agency between children with an individualized education program and those without and between children eligible for the national school lunch program and those not eligible. See table C4 in appendix C for more information.
Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.

Figure 8. Children of different ages enrolled at similar rates in prekindergarten programs within and outside their local education agency, 2016/17

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Within local education agency (%)</th>
<th>Outside local education agency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-year-olds (n = 2,444)</td>
<td>82</td>
<td>18</td>
</tr>
<tr>
<td>4-year-olds (n = 3,084)</td>
<td>84</td>
<td>16</td>
</tr>
<tr>
<td>5-year-olds (n = 94)</td>
<td>82</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: Differences in enrollment by age cohort were not statistically significant. See table C4 in appendix C for more information.
Source: Authors’ analysis of Vermont Agency of Education data for 2016/17.
Implications

The findings have several important implications as Vermont seeks to understand which preK program types families are choosing and whether certain groups of children are more likely to be enrolled in specific types of programs or programs of higher or lower quality. This understanding can inform decisions on whether the current approach to implementing universal preK has unintended consequences.

As intended, Act 166 provides access to higher quality educational environments, as measured by STARS, for preK children in Vermont with an individualized education program and children eligible for the national school lunch program, who have been enrolled in public school programs and in programs with higher STARS ratings at higher rates than their counterparts. Access might be improved, however, in areas that currently have few or no prequalified preK programs through efforts to increase the number of high-quality programs available. This is because preK children in public school programs outside the boundaries of their local education agency and those enrolled in three-star programs had, on average, fewer prequalified programs within the boundaries of their local education agency. These data suggest that, in situations where there are fewer choices within the boundaries of the local education agency, families may be enrolling their children in programs that are farther from their home or of lower quality. Vermont may want to support efforts to increase the number of programs with four- and five-star quality ratings within the boundaries of local education agencies that have fewer such programs.

Vermont has made great strides since the data for the 2016/17 school year were collected in improving its early childhood data systems and implementing the online assessment system. It was often not possible to link children with data in the 2016/17 files to the preK program in which they were enrolled even though the state uses a rigorous algorithm to match enrollment data to online assessment data (which holds data on the program of enrollment). Continuing to improve data collection (for example, by requiring that preK enrollment forms include the child’s preK program) and increasing preK programs’ use of the online assessment system will allow for more robust evaluation moving forward. As noted earlier, 2,978 (35 percent) of the children enrolled in Vermont’s universal preK program could not be included in this study because their preK program could not be identified or other data were missing.

In future efforts to examine how changes to Act 166 may affect families’ access to preK, Vermont could conduct research on what challenges preK programs face in obtaining and maintaining higher quality ratings. Research could also examine how families make decisions about which preK program in which to enroll their child.
References


REL 2020–015
January 2020

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-17-C-0008 by Regional Educational Laboratory Northeast & Islands administered by American Institutes for Research. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

This REL report is in the public domain. While permission to reprint this publication is not necessary, it should be cited as:


This report is available on the Regional Educational Laboratory website at http://ies.ed.gov/ncee/edlabs.