



MOVING ON UP? PROGRAM QUALITY RATINGS UNDER RACE TO THE TOP—EARLY LEARNING CHALLENGE

The Race to the Top—Early Learning Challenge (RTT-ELC) grants program, sponsored by the U.S. Department of Education and U.S. Department of Health and Human Services, aimed to improve children’s access to high quality early learning and development programs. RTT-ELC awarded \$520 million in the first of three rounds of grants to help states develop and implement systems that rate early learning and development programs on quality and help them improve. These systems are known as tiered quality rating and improvement systems (TQRIS). TQRIS rate programs based on state-defined quality standards. Programs at the lowest level meet a basic level of quality, whereas programs at the top levels meet the highest standards of quality as measured by one of these rating systems.

A key objective for RTT-ELC was to increase the number of early learning and development programs in the top rating levels of the TQRIS, and to increase the number of children with high needs, such as those from low-income households, enrolled in these programs. To meet this objective, states could try to encourage more programs to participate in TQRIS and seek high ratings.

This brief examines states’ progress on this objective by describing patterns of TQRIS participation and ratings for the nine Round 1 states during the grant period (2012 to 2016). The brief presents patterns by state and for four types of programs: (1) state-funded prekindergarten (pre-K) programs, (2) Head Start programs, (3) licensed centers that received child care subsidies, and (4) licensed centers that did not receive subsidies. The first three types of programs—state-funded pre-K, Head Start, and licensed centers that received subsidies—serve low-income children; the last type might be less likely to serve low-income children because they do not receive public funding to do so. Key findings, based on administrative TQRIS data from the nine states, include:

- *TQRIS participation in all states and among all types of programs increased from 2012 to 2016. Programs that served low-income children—state-funded pre-K, Head Start, and licensed centers that received subsidies—participated at much higher levels than licensed centers that did not receive subsidies, which might not serve low-income children.*
- *Patterns in the percentage of programs in the top two rating levels differed substantially by state from 2012 to 2016. This finding could be due, in part, to various differences across states, including differences in states’ TQRIS characteristics and policies and the composition of programs that participated in each state.*
- *Most states increased the percentage of programs at the top rating levels. In particular, most states expanded TQRIS participation among two types of programs (state-funded pre-K and Head Start programs) that serve low-income children. These programs tended to enter TQRIS at high levels either by meeting TQRIS standards or through policies (alternative pathways and automatic ratings) that grant them credit for certain TQRIS standards because they meet them through external quality standards.*

- *The availability of high-rated programs for low-income children increased over time in the nine RTT-ELC states. Notably, licensed centers that received subsidies moved from lower to higher rating levels over time. However, most children served by licensed centers that received subsidies were not enrolled in programs at the top levels by 2016.*

Providing young children from birth to age 5 with high quality early learning and development experiences, particularly in formal center-based and preschool settings, yields significant benefits—especially for children from low-income and disadvantaged households (Dearing et al. 2009; Weiland and Yoshikawa 2013). These benefits can include short-term improvements in social skills, behavior, and language skills, as well as long-term effects, such as pursuing more years of education and earning higher income (Campbell et al. 2002; Heckman 2011; Duncan and Magnuson 2013). To improve the quality of early learning and development that children experience, states created TQRIS that establish quality standards, encourage programs to participate, and rate programs on the standards (Zellman et al. 2011). These systems also provide incentives for programs to earn higher ratings and publicize the ratings of individual programs to help parents choose better programs for their children.

Developing and implementing TQRIS was a key aspect of the RTT-ELC program. Through TQRIS, RTT-ELC sought to strengthen the quality of early learning and development programs by promoting progress on five objectives (Box 1), including increasing access to high quality programs, particularly for children from low-income and disadvantaged households (Applications for New Awards; Race to the Top—Early Learning Challenge 2011). The Departments of Education and Health and Human Services awarded RTT-ELC grants through three rounds of competition to help states implement new TQRIS or increase participation and ratings in established TQRIS. Round 1 grants, which are the focus of this brief, were awarded in December 2011 to nine states—California, Delaware, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Rhode Island, and Washington. Of the Round 1 states, five had statewide TQRIS by 2011, the year in which RTT-ELC grants were awarded. By 2015, eight of the states had statewide TQRIS, and the ninth state—California—had locally administered TQRIS but statewide adoption was underway.

Box 1. RTT-ELC's five TQRIS objectives

1. Developing and adopting a common, statewide TQRIS
2. Promoting participation in the TQRIS
3. Rating and monitoring early learning and development programs
4. Promoting access to high quality programs for children with high needs by:
 - Increasing the number of programs in the top levels of the TQRIS, and
 - Increasing the number and percentage of children with high needs who are enrolled in programs that are in the top levels
5. Validating the effectiveness of the TQRIS

The Institute of Education Sciences at the Department of Education initiated a study to learn about TQRIS in the nine states that received RTT-ELC Round 1 grants and to inform ongoing TQRIS development. The study focused on center-based early learning and development programs that served preschool-age children (these programs might have also served infants, toddlers, and school-age children). The study generated a series of reports and briefs. The first report examined progress on the first three TQRIS objectives (outlined in Box 1) by describing the development, structure, and characteristics of TQRIS in the Round 1 states. It found that these states made progress in developing and implementing statewide TQRIS (Kirby et al. 2017). However, they

varied substantially in the ways they promoted participation in TQRIS, defined quality standards, verified that programs met the standards, and calculated ratings.

This brief contributes to the larger study by describing states' progress on the fourth objective—promoting access to high quality programs for children with high needs. It focuses on the parts of the objective that could be examined with the data available: increasing the number of programs at top levels of the TQRIS and increasing the number of children (including those from low-income households) served by top-rated licensed centers that received subsidies. Data were not available on the total number of children or number of children from low-income households that state-funded pre-K or Head Start programs served. Data were also not available for the full range of children with high needs (such as those who have disabilities or developmental delays, are English learners, or are migrant, homeless, or in foster care). Thus, although the brief provides some information about the availability of top-rated programs for low-income children, it does not provide complete information about increased access to high quality programs for children with high needs.

To achieve an increase in the number of programs at top levels, the nine Round 1 RTT-ELC states could try to encourage more programs to participate in TQRIS and seek high ratings. This brief describes the patterns in TQRIS participation and ratings among programs in the nine Round 1 states during the RTT-ELC grant period from 2012 to 2016. It examines programs' attainment of the highest TQRIS rating levels and how programs reached those levels—at the time of entry or by progressing to higher ratings after entry. It also focuses on patterns of participation and ratings for types of programs that serve children from low-income households. For licensed centers that received child care subsidies—the only type of program serving low-income children for which states consistently provided data on the number of children served—the brief presents the percentages of children served in centers at the top rating levels.

Future work that is planned for this study will further examine RTT-ELC states' progress on the fourth and fifth TQRIS objectives (Box 1). This work plans to provide additional information about (1) patterns of TQRIS ratings across states with different TQRIS characteristics and policies and (2) findings from states' TQRIS validation studies.

Research Questions

To understand potential changes in children's access to high quality programs in the nine Round 1 states under RTT-ELC, we examined four research questions:

1. How did TQRIS participation change during the RTT-ELC grant period from 2012 to 2016 in the nine states? What was the composition of programs that participated in TQRIS by 2016?
2. How did the percentage of programs in the top TQRIS rating levels change from 2012 to 2016 in the nine states? Did the distribution of ratings shift toward the higher levels over time?
3. What were the patterns in rating levels at TQRIS entry and improvement in rating levels among different types of programs? How did TQRIS participating programs in the nine states achieve the top two rating levels by 2016?
4. Did states make progress in promoting availability of high quality programs for low-income children?

For all of these questions, we also examined how TQRIS participation, ratings, and movement varied across program types and states. Different types of programs serve children of different ages and from different income groups, and they face different incentives to participate in TQRIS and earn higher ratings. States also differ in how they structure TQRIS and in the policies they use to try to encourage programs to participate and improve.

The answers to these research questions help shed light on states' progress toward increasing children's access to high quality programs. First, to increase the number of programs at top levels of TQRIS, states must encourage programs to participate. Second, the number of programs that receive high TQRIS ratings provides information about the prevalence of programs that met quality standards (either state-defined TQRIS standards or other external quality standards that states may use as a proxy for meeting certain TQRIS standards or rating levels). Third, programs' ratings at entry and the movement of programs from low to high rating levels provide information about how programs achieve top rating levels; improving programs' ratings is a key way that states aim to increase the availability of high quality programs. Finally, for children from low-income households to have access to high quality programs, those programs must first be available.

In Boxes 2 and 3, we describe the data sources, methods, and samples that we used to answer these questions.

Box 2. Data sources

Telephone interviews with TQRIS administrators in the nine states provided information about TQRIS structure, policies, and practices from 2012 through 2016. We conducted two rounds of interviews. The first round, from October 2014 through April 2015, collected information on TQRIS characteristics from the start of the RTT-ELC grants in 2012 through the time of the interview. The second round, in December 2016 and January 2017, confirmed or updated this information.

Administrative data from the nine states provided information about TQRIS participation and ratings from the start of the RTT-ELC grants in 2012 through June 2016. Data for 2016 are for only half the year (from January through June). Data from California are from the 16 counties in which the state implemented its TQRIS beginning in 2012. California provided data for these counties for 2014 to 2016. All other states have statewide TQRIS and we collected data for each of those states as a whole. In Ohio, data from before and after October 2013 (when the state moved from a system with three rating levels to one with five levels) were not comparable. For these reasons, we only used data from Ohio and California from 2014 to 2016.

We combined the TQRIS data with other administrative data, including licensing and child care subsidy data, and state-funded pre-K and Head Start program lists and data, to build a longitudinal picture of early learning and development programs over the study period, including those that did and did not participate in TQRIS. All states provided data on state-funded pre-K, Head Start, and licensed programs that did and did not participate in TQRIS. However, most states did not provide data on license-exempt programs that were not either state-funded pre-K or Head Start programs (which are often considered license-exempt when operated in public schools), particularly if they did not participate in TQRIS. Only three states allowed license-exempt programs that were not receiving state pre-K or Head Start funds to participate in TQRIS. Such programs could include those administered on Tribal lands or on military bases, or those affiliated with a religious program. These programs accounted for less than 1 percent of TQRIS participating programs in 2016 in two of the three states and less than 5 percent in the third state.

Data on the number of children enrolled (enrollment), the number of children a program served (capacity), and the number of children with high needs were limited. States provided complete data on capacity only for licensed programs. Most states did not provide complete data on enrollment or the number of low-income children supported through child care subsidies in a center-based program. No states could provide center-level data on the number of children supported with either Head Start or state pre-K funds. States also could not provide data on the full range of children with high needs (such as those with disabilities).

Accreditation data from the National Association for the Education of Young Children (NAEYC) provided information about the accreditation status of early learning and development programs in each of the nine states as of June of each year from 2012 to 2016.

For more information about the data sources, see Appendix A.

Box 3. Methods and samples

We used descriptive analyses to describe programs' participation and ratings, overall and by type of program and state. For these analyses, we used the full population of programs, as opposed to a sample. Thus, any observed differences reflect actual differences, not estimates based on statistical tests.

Due to data limitations, all analyses exclude license-exempt programs that were not either state-funded pre-K or Head Start programs (which are often considered license-exempt when operated in public schools).

Participation

To examine participation, we used data on all programs (from the four program types) in each state, including those that did not participate in TQRIS. We then calculated the percentage that participated in TQRIS. The number of programs in the analyses ranged from 14,287 in 2012 (in seven states, excluding California and Ohio) to 28,355 in 2016 (in nine states) (Appendix A, Table A.1).

Analyses that combined data across states and compared 2012 with 2016 excluded California and Ohio because they did not have usable data for the entire period. This restriction ensured that comparisons between 2012 and 2016 reflect true changes in participation across years and not changes caused by differences in data availability. The number of programs in the analyses for the seven states ranged from 14,287 in 2012 to 14,100 in 2016.

Ratings

Analyses of ratings included only programs that participated in TQRIS from among the four program types and had ratings in each year. The number of programs with ratings in each year ranged from 5,414 in 2012 (in seven states) to 13,357 in 2016 (in nine states).

We used five standardized rating categories that describe the position of rating levels within each state's rating structure. Seven of the nine states used a five-level rating structure and two states used four levels. Rating levels were not directly comparable across states, even among states with the same number of ratings, because states included different quality components and calculated the ratings differently (Kirby et al. 2015). The four-level rating structure only uses four of the categories: in this structure, 1 is the lowest level, 4 is the highest level, and 2 and 3 are the second-lowest and second-highest levels, respectively. There is no middle level in the four-level rating structure, because the exact middle of 1 and 4 is 2.5.

The standardized categories align the top two rating levels across the four- and five-level structures, following the most common and conservative definition of "top tiers" that RTT-ELC states used. In their grant reports, the majority of RTT-ELC states only included ratings in the top two levels (4 and 5 in the five-level structure and 3 and 4 in the four-level structure) in their "top tiers." These categories standardized the ratings as shown in the table below.

Standardized rating level category	Rating in 4-level rating system	Rating in 5-level rating system
Highest level	4	5
Second-highest level	3	4
Middle level	n.a.	3
Second-lowest level	2	2
Lowest level	1	1

n.a. = not applicable.

The analysis examined the percentage of programs that received each rating level category and the percentages in the two highest levels combined.

To understand how programs reach the two highest levels, we examined ratings at entry and movement to higher ratings. For programs that reached the highest levels before the analysis period began (2012 for seven states and 2014 for California and Ohio), we did not observe how they reached these levels (at entry or through movement). The entry analysis included programs that entered during the analysis period (9,658 programs). The movement analysis used program ratings from 2012 to 2016 and included 14,042 programs. It (1) included programs that participated in TQRIS for any period of time (longer than one year) within the analysis period (even if they exited before 2016), and (2) excluded programs that did not have enough time to change ratings (that is, those that entered TQRIS in 2016).

Types of Participating Programs and TQRIS Policies

The types of programs that participate in TQRIS and the policies that are intended to promote participation and encourage quality improvement could contribute to patterns in participation and ratings. Understanding the different program types and TQRIS characteristics and policies provides important context for interpreting the patterns in participation, ratings, and improvement that we present. It also underscores how these patterns might translate into increased availability of high quality programs for low-income children.

Program types. The landscape of center-based early learning and development programs that serve children ages 3 to 5 is quite diverse. Programs differ in the ages of children they serve and the degree to which they serve low-income or high-needs children (Table 1). State-funded pre-K and Head Start programs specifically target preschool-age children and fully, or predominantly, serve low-income children, respectively. Licensed centers can serve children from birth through age 12; in this study, we included only those that served preschool-age children. Licensed centers that received child care subsidies served at least some low-income children; we could not determine from the data whether licensed centers that did not receive subsidies served low-income children or the numbers of low-income children that programs served. Other differences among programs include the type of setting (such as within a public school or a community-based organization), the type and source of their licensing or regulation, and the types of funding or revenue they receive.

Many programs receive funding from a mix of sources, so categorizing each program as a single type might not fully capture its nature. For example, a community-based center could have Head Start classrooms for children ages 3 to 5 and state-funded pre-K classrooms for 4-year-olds. It could also receive Child Care and Development Fund subsidies to support low-income children from birth to age 12 and receive full or partial tuition directly from parents. However, to learn about patterns across programs and how TQRIS policies might influence them, we created mutually exclusive program types that include state-funded pre-K programs, Head Start programs, licensed centers that received child care subsidy funding, and licensed centers that did not receive any type of public funding examined in this analysis (see Appendix A, Table A.2 for more information about how we created these program types and their licensing status and funding sources).

Not all Head Start and state-funded pre-K programs must hold a license from the state child care licensing entity. However, these programs must follow standards set by the Federal Office of Head Start or state department of education, respectively. These standards include components of quality that are similar to those of TQRIS standards and often set requirements that are comparable to those for the highest TQRIS rating levels. For example, state-funded pre-K programs in the nine states require the use of early learning development standards and approved curricula (Barnett et al. 2017).

Programs that are not administered by public schools can receive accreditation from the National Association of the Education of Young Children (NAEYC). NAEYC accreditation means that a program has met standards for quality in 10 areas including curriculum, assessment of child progress, physical environment, and leadership and management, among others (NAEYC 2017). We did not classify NAEYC accredited programs as a specific program type for these analyses. Instead, we included this accreditation as a program characteristic because some TQRIS policies specifically target NAEYC-accredited programs (Table 1).

Table 1. Characteristics of the types of early learning and development programs in the nine Round 1 RTT ELC states

Type of program	Children served	Setting	Licensing or regulation	Public funding received	Percentage of programs that had NAEYC accreditation in 2016
State-funded pre-K	All states serve 4-year-olds; 5 states also serve 3-year-olds. Targeted to low-income children in 7 states.	Community-based or public school settings	Regulated by state departments of education using state program standards. May be licensed in community-based settings or considered license-exempt when delivered in public school settings.	State pre-K funds. May also have received Federal Head Start funds and child care subsidies.	2% (only applies to programs delivered in licensed centers)
Head Start	Targeted to low-income children ages 3 to 5.	Community-based or public school settings	Regulated by the Federal Office of Head Start using Head Start Program Performance Standards. May be licensed in community-based settings or considered license-exempt when delivered in public school settings.	Federal Head Start funds. May also have received state-pre-K funds and child care subsidies.	5% (only applies to programs delivered in licensed centers)
Licensed centers, received subsidies	Range from birth to school-age (up to age 12). ^a Subsidies support low-income children; may also serve children from higher-income levels.	Community-based settings	Licensed by child care licensing entity in the state.	Federal Child Care and Development Fund. State-funded child care subsidies.	8%
Licensed centers, no subsidies	Range from birth to school-age (up to age 12). ^a May serve low-income children but data available on public funding sources do not indicate this.	Community-based settings	Licensed by child care licensing entity in the state.	None. ^b	4%

Source: Document reviews and telephone interviews conducted from December 2016 to January 2017, and administrative data collected from NAEYC and the Round 1 RTT-ELC states from October 2016 to April 2017.

^a The analyses included only licensed centers that served preschool-age children.

^b Centers did not receive the public funding examined in this analysis including child care subsidies, Head Start, or state pre-K funds.

TQRIS characteristics and policies. TQRIS first emerged in the late 1990s, expanded somewhat in the early 2000s, and flourished under RTT-ELC. By the end of 2017, 44 states had TQRIS (BUILD Initiative 2017).¹ TQRIS rate early learning and development programs against state-defined quality standards that include components such as licensing compliance, quality of the learning environment, and qualifications of the workforce. Based on meeting the standards, programs receive an overall rating level. In the Round 1 RTT-ELC states, the overall rating ranged from 1 to 4 in two states and 1 to 5 in seven states.

The meaning of each rating level—what it measures and how—is not the same across states. States define TQRIS standards and rating levels differently (for more information about how the nine Round 1 RTT-ELC states defined rating levels, see the first report from this study, Kirby et al. 2017). For example, the nine Round 1 RTT-ELC states use anywhere from 6 to 12 components for their highest rating level. Even when multiple states use a particular TQRIS component (such as the quality of the learning environment), each state might differ in the rating level for which

that component is required. The commonality across the states is that the higher the rating, the higher the level of quality of the program based on the state’s TQRIS standards.

States also differ in the characteristics and policies that they define for their systems, which could influence programs’ participation and the ratings they receive. The nine Round 1 RTT-ELC states vary widely in how they chose to structure TQRIS. These nine states are not representative of all TQRIS, but they do reflect the wide variation in characteristics and policies that exists across the 44 current TQRIS (BUILD Initiative 2017).²

The nine Round 1 RTT-ELC states vary across the following *characteristics*, which could influence programs’ participation and the frequency and ease with which programs can achieve higher ratings (Table 2):

- Length of implementation.** A state system needs about two to four years, on average, to achieve a steady state of implementation in which the policies, practices, and supports are in place and running smoothly (Metz and Bartley 2012). Mature systems might have more-established policies that aim to encourage and support movement through the ratings. At the beginning of the study period in 2012, four states had implemented TQRIS statewide for two years or more. North Carolina had the longest-running TQRIS, which it adopted in 1999. Other states expanded or launched TQRIS closer to the start of the RTT-ELC grants. Two of the nine states expanded TQRIS from a pilot to statewide at the start of RTT-ELC in 2012 and two others first launched TQRIS concurrently with RTT-ELC.

Table 2. TQRIS characteristics in RTT-ELC Round 1 states

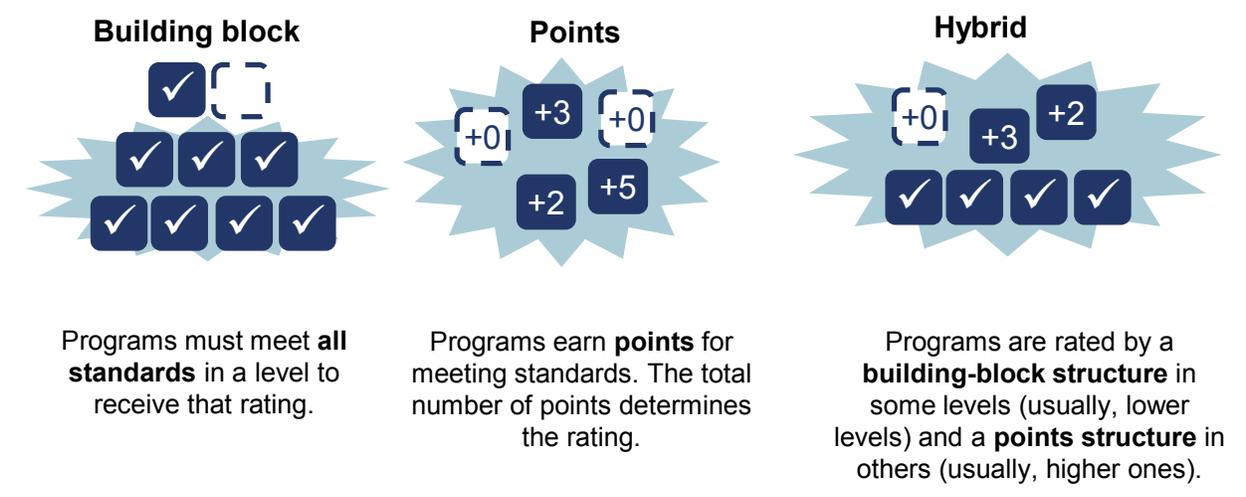
State	Length of TQRIS implementation in 2012	Rating structure ^a	Entry requirement at lowest rating level	Validity period for ratings
California	First year	Points	None	2 years
Delaware	4 years	Hybrid	Licensed centers that received subsidies Licensed centers with no subsidies	1–3 years by rating level
Maryland	Did not start until 2013	Block	None	1 year
Massachusetts	1 year	Block	Licensed centers that received subsidies Licensed centers with no subsidies	2 years
Minnesota	First year	Hybrid	None	2 years
North Carolina	13 years	Points	All participating programs	3 years
Ohio	6 years	Hybrid	None	1–3 years by rating level
Rhode Island	3 years	Block	None	3 years
Washington	First year	Hybrid	Licensed centers that received subsidies Licensed centers with no subsidies	3 years

Source: Telephone interviews conducted by Mathematica, October 2014–April 2015 and December 2016–January 2017.

^a Rating structure applies to levels beyond the lowest level. All TQRIS have a block structure for the lowest level that requires programs to meet all licensing requirements and sometimes additional components.

- Rating structure.** TQRIS use one of three structures to determine a program’s rating level: points, hybrid, and building block structures (Figure 1). Six states use points and hybrid structures, which can provide programs with flexibility in demonstrating quality because they offer multiple ways to earn a higher rating. These structures might promote more movement of programs up the rating levels than building block structures, which require programs to meet all standards of a given rating.

Figure 1. Rating structures in TQRIS



- **Entry requirement at lowest level.** Four states required programs to enter at the lowest level, instead of the level for which they may have qualified. Overqualified programs at the lowest level might move quickly to higher levels.
- **Validity period.** Depending on the state (and sometimes the rating level), ratings are valid from one to three years. Shorter validity periods—and more frequent reassessment of programs—could cause more frequent increases, and possibly decreases, in ratings.

The nine states developed policies to attempt to encourage and support TQRIS participation among different types of programs (Table 3). These policies might also have affected the ways that programs entered and moved through the ratings, resulting in different distributions of programs across the rating levels in each state. The state policies were as follows:

- **Participation requirements.** Seven states required certain types of programs (for example, those that received public funding like state-funded pre-K programs, Head Start programs, or licensed centers that received child care subsidies) to participate in the TQRIS. Participation of licensed centers that did not receive public funding was voluntary in every state but North Carolina, which required all licensed programs to participate in the TQRIS.
- **Alternative pathways or automatic ratings.** Six states aimed to encourage participation by awarding credit (known as offering an alternative pathway) for certain quality components (five states) or automatically awarding higher rating levels (one state) to programs that met quality standards external to the TQRIS (for example, state-funded pre-K, and Head Start, and NAEYC-accredited programs). These policies could have resulted in certain programs entering the TQRIS at high rating levels and then not moving much, depending on the level at which they entered. When alternative pathways or automatic ratings are in place, eligible programs are exempted from part or all of the TQRIS rating process in an effort to decrease the burden on programs that must meet multiple sets of standards. States often complete a crosswalk between other external quality standards and the TQRIS standards to establish comparability when developing these types of policies. However, the specific degree of equivalence between the relevant external standards and

TQRIS standards is not fully known; equivalence can more readily be established for specific components used in alternative pathways than for a full set of components that automatically qualifies a program for a high rating level.

Table 3. TQRIS policies in RTT-ELC Round 1 states

State	Participation requirements	Alternative pathways	Automatic rating	Rating level funding requirement	Tiered reimbursement payments for children receiving subsidies	Other financial incentives
California	None	None	None	None	None	None
Delaware	State-funded pre-K	None	NAEYC, Head Start, state-funded pre-K	None	Any program receiving subsidies for low-income children	None
Maryland	Licensed centers receiving subsidies, state-funded pre-K	NAEYC, state-funded pre-K (school-based only) ^a	None	State-funded pre-K ^a	Any program receiving subsidies for low-income children	All participating programs, except school-based programs
Massachusetts	Licensed centers receiving subsidies, Head Start, state-funded pre-K	NAEYC, Head Start	None	State-funded pre-K	None	None
Minnesota	None	NAEYC, Head Start, state-funded pre-K	None	None	Any program receiving subsidies for low-income children	All participating programs
North Carolina	All licensed programs; includes both types of licensed centers and may include Head Start and state-funded pre-K programs in licensed settings	None	None	Licensed centers receiving subsidies, state-funded pre-K	Any program receiving subsidies for low-income children	None
Ohio	Licensed centers receiving subsidies, state-funded pre-K	None	None	None	Any program receiving subsidies for low-income children	All participating programs, except school-based programs
Rhode Island	Licensed centers receiving subsidies, state-funded pre-K	NAEYC, Head Start	None	None	Any program receiving subsidies for low-income children	None
Washington	State-funded pre-K	Head Start, state-funded pre-K	None	None	Any program receiving subsidies for low-income children	All participating programs

Source: Telephone interviews conducted by Mathematica, October 2014–April 2015 and December 2016–January 2017.

Note: Blue shaded cells indicate states that have the policy listed in the table column. Gray shaded cells indicate states that do not have the policy listed in the table column.

^a These policies took effect in the middle of 2015 in Maryland.

- Rating level funding requirement.** In three states, programs had to attain a certain rating level to be eligible for specific types of funding. For example, a program in North Carolina must have attained a level 3 rating to receive child care subsidies from the Child Care and Development Fund or a level 4 rating to receive state pre-K funds. These policies could have also channeled certain programs into higher ratings at TQRIS entry and reduced the amount of improvement needed to move up.

- **Tiered reimbursement for child care subsidies.** Seven states intended to promote participation, particularly among licensed centers that received subsidies, by offering higher payments to subsidize serving low-income children if the programs participate in TQRIS. The tiered rates might also have promoted advancement by incrementally increasing the payments to programs at each higher rating level.³
- **Other financial incentives.** Four states intended to promote participation and advancement up the rating levels by offering other forms of financial assistance to programs that participated in TQRIS, such as quality improvement grants that helped programs work toward a higher rating or bonus awards for achieving a higher rating level.

In addition to these policies, states could try to promote quality improvement by publicizing TQRIS ratings. This study did not collect systematic data on how states publicized ratings that could be used to interpret the patterns of participation and ratings.

Below we discuss the patterns in TQRIS participation and ratings among programs in the nine Round 1 states during the RTT-ELC grant period. Throughout the findings, it is important to keep the following caveats in mind:

- **Rating levels do not reflect a uniform level of quality.** Because states use different quality components and calculate rating levels differently, programs that receive a particular rating level might vary substantially in quality across states, even among states that use the same number of rating levels. In addition, within states, programs might achieve rating levels in different ways, weakening the link between the levels and certain measures of quality. For example, building block rating structures require programs to meet all standards within a level to receive a rating. In these structures, a program that missed qualifying for the next level based on a single standard might not be that different in quality from programs at the next level. In points and hybrid structures, programs that receive a given rating level could have met different standards, as long as they received enough points.
- **Rating levels might not reflect programs' "true" quality.** States use various data collection and verification processes to help ensure the reliability of the rating levels, but ratings could differ from programs' "true" quality for several reasons. First, some states use alternative pathways or automatic ratings, which exempt programs that meet external quality standards from part or all of the TQRIS rating process. It is not fully known whether these programs would meet the state-defined standards. Second, some states require programs to enter at the lowest level, instead of the level to which they would have qualified. In these states, ratings might initially understate some programs' "true" quality. Overqualified programs could move up without improving quality, resulting in movement that does not reflect increased quality. Finally, programs could make quality improvements without applying for higher ratings; this could cause ratings to understate programs' quality.
- **Increasing the number of programs at the highest TQRIS rating levels might not necessarily improve children's access to high quality programs.** States could increase the number of programs at high rating levels by encouraging existing programs that were already high quality to participate in TQRIS. In addition, increased availability of high quality programs might not translate into increased access for low-income children due to other factors, like affordability.

- **The findings do not provide evidence that particular policies or program types caused the observed patterns in participation and ratings.** Throughout the findings, we discuss the TQRIS characteristics and policies that might influence the patterns we present, but this study is purely descriptive. The nine Round 1 states differ on many TQRIS characteristics and policies as well as on other dimensions, such as the characteristics of families seeking child care, the way in which TQRIS publicize the ratings to families, the composition of the early learning and development landscape, and the presence of other quality initiatives beyond TQRIS. Therefore, although we discuss several potential explanations for the patterns we present, other potential explanations might exist for these observed patterns. This brief does not describe all of the differences across the states that might have contributed to differences in the patterns of program participation or ratings that we present.

Findings

How did TQRIS participation change during the RTT-ELC grant period from 2012 to 2016 in the nine states? What was the composition of programs that participated in TQRIS by 2016?

1. TQRIS participation increased across all states and program types during the RTT-ELC grant period.

The goal of the RTT-ELC grants was to help states promote participation in TQRIS among a range of early learning and development programs, including those that served low-income children. The nine Round 1 states successfully developed TQRIS and/or expanded participation in TQRIS during the grant period, particularly among programs that served low-income children including state-funded pre-K programs, Head Start, and licensed centers that received subsidies.

TQRIS participation increased in each of the nine states during RTT-ELC from 2012 to 2016, especially in states that implemented TQRIS toward the beginning of the grant period. By 2016, six states had more than half of all eligible programs participating in TQRIS, and three of these states had participation rates of 80 percent or more (Figure 2). In five states, participation rates increased by more than 40 percentage points. Overall, just under half (48 percent) of all center-based programs across the states participated in TQRIS by 2016, a 10 percentage point increase from 2014 (the earliest year for which data on all states were available).

Policies intended to encourage TQRIS participation:

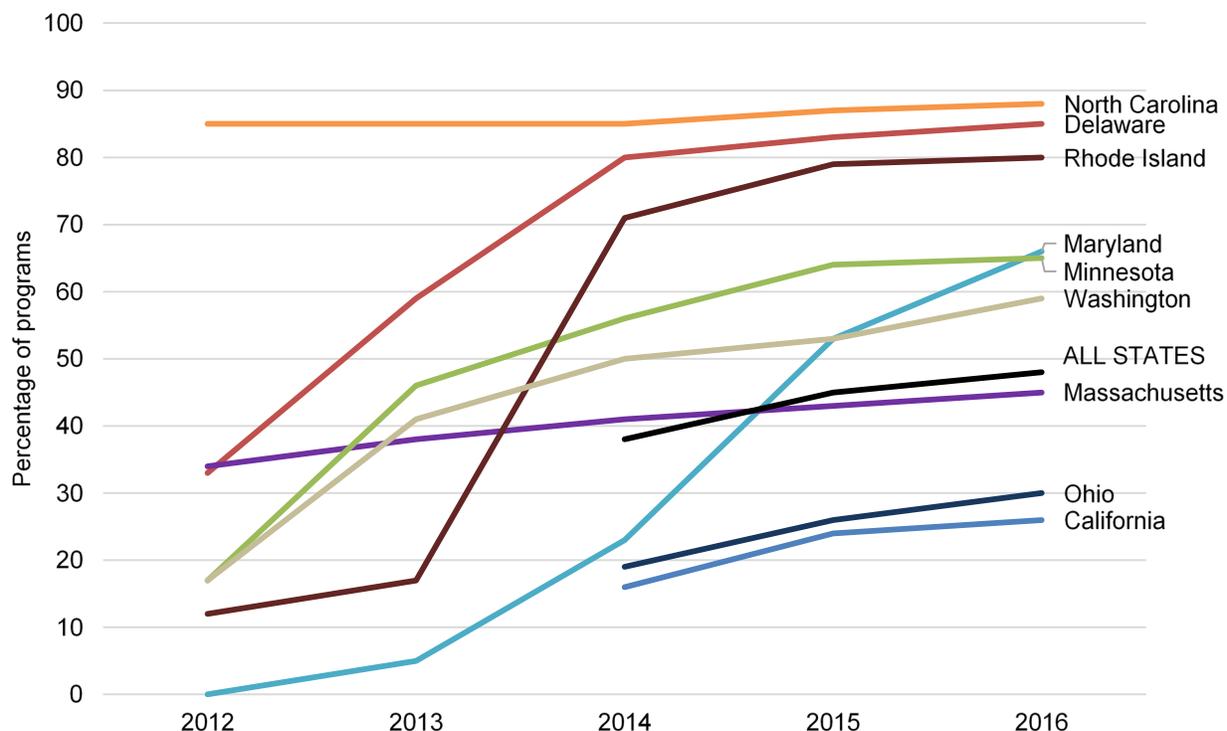
- Participation requirements
- Alternative pathways
- Automatic ratings
- Financial incentives

The growth in participation varied across the states, possibly due, in part, to a combination of TQRIS characteristics (such as the length of TQRIS implementation), and policies (such as participation requirements). North Carolina consistently had the highest TQRIS participation rate, ranging from 85 percent in 2012 to 88 percent in 2016. North Carolina's rating system has been in place since 1999 and the state requires all licensed centers to participate.

California, Maryland, Minnesota, and Washington were just launching their TQRIS when they received their RTT-ELC grants in 2012, and they had some of the lowest participation rates when the grant period began. Maryland did not officially launch its system until 2013, so it had no

programs participating in 2012. California launched its system in 16 counties in 2012, but it did not have data available until 2014.

Figure 2. Percentage of programs participating in TQRIS over the RTT-ELC period, by state, 2012-2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of all center-based programs (from the four program types) in the states ranged from 14,287 in 2012 to 28,355 in 2016. Analysis counted all licensed centers, Head Start, and state-funded pre-K programs that were considered participating by each state, including those that had not yet received a rating. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The figure omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016. Maryland implemented TQRIS in 2013; therefore, no programs were participating in 2012.

Figure reads: Twelve percent of all early learning and development programs participated in TQRIS in Rhode Island in 2012 and 80 percent participated by 2016.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Seven of the nine states required at least some types of programs to participate, which might have contributed to increased participation over time. For example, Rhode Island required programs that received Child Care and Development Fund subsidies to participate in TQRIS beginning in 2014. In that year, many licensed centers that received subsidies entered the system, increasing TQRIS participation by over 50 percentage points.

California and Ohio had the lowest TQRIS participation rates among early learning and development programs from 2014 through 2016 (the years that data were available for these states). California allowed voluntary TQRIS participation for all programs. In 2014, Ohio required TQRIS participation for licensed centers that received Child Care and Development Fund subsidies and state-funded pre-K programs. However, it gave programs time to enter the system, which might explain why their participation increased slowly.

TQRIS participation increased for all types of programs from 2012 to 2016, but programs that received public funding to serve low-income children participated in TQRIS at higher rates than programs that did not. By 2016, about 90 percent of state-funded pre-K

Participation among NAEYC accredited programs

Accredited programs, which include all types, participated in TQRIS at increasingly higher rates from 2012 to 2015 and then remained flat at about 70 percent in 2016 (see Appendix B, Figure B.1). NAEYC-accredited programs that received some type of public funding (state pre-K, Head Start, or subsidy funds) participated at much higher rates than accredited centers that did not receive these public funds.

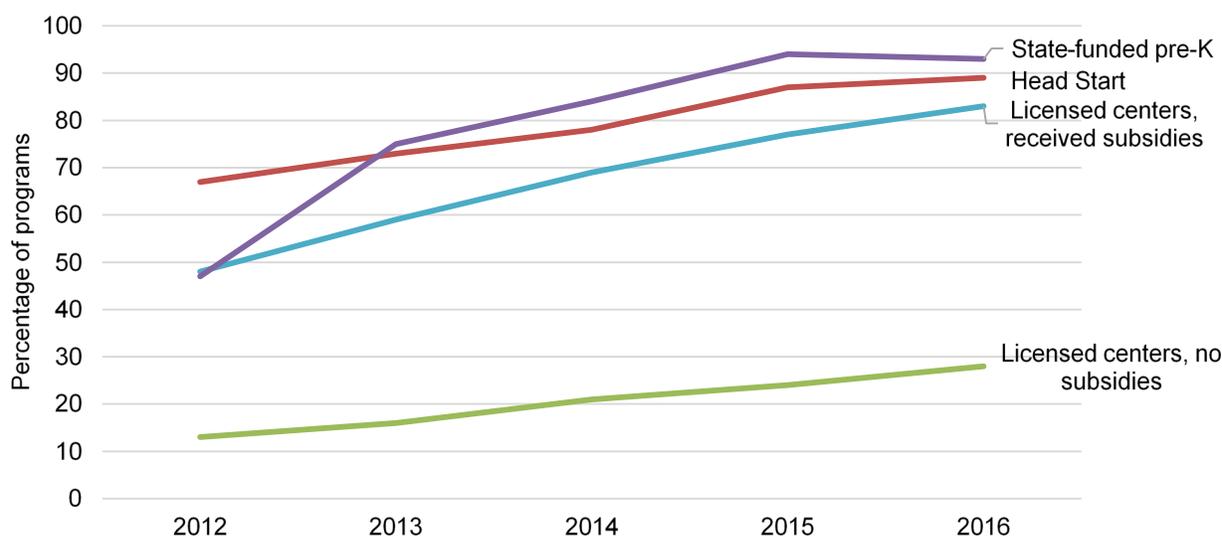
and Head Start programs in the seven states that had data available for the whole period participated in TQRIS (Figure 3).⁴ Participation among licensed centers that received subsidies also increased over the period, approaching the rates for state-funded pre-K and Head Start programs. Licensed centers that did not receive subsidies had the lowest participation rates; just 28 percent of these programs in the seven states participated in TQRIS in 2016.

These patterns of participation might be due somewhat to states' policies intended to encourage programs to participate in TQRIS. Most of the seven states require or attempt to make it easier for state-funded pre-K, Head Start, and licensed centers that receive subsidies to participate:

- **State-funded pre-K programs.** Five of the seven states required state-funded pre-K programs to participate. In addition, North Carolina required all licensed programs to participate and a substantial majority of its state-funded pre-K programs were licensed.
- **Head Start programs.** A substantial majority of North Carolina's Head Start programs were licensed, and thus, required to participate. In addition, Massachusetts required Head Start programs to participate, and four other states intended to make it easier for Head Start programs to participate by offering them either an alternative pathway or an automatic rating.
- **Licensed centers that received subsidies.** Four of the seven states (including North Carolina) required licensed centers that received subsidies to participate. In contrast, participation is voluntary for licensed centers that did not receive subsidies in every state but North Carolina.

2. The majority of programs participating in TQRIS by 2016 received public funds to serve low-income children.

The RTT-ELC grants were intended to help states promote participation in TQRIS, particularly among programs that served low-income children. The prevalence of the different types of programs participating in each state provides information about which types of programs states could target in an attempt to improve the availability of high quality care for low-income children.

Figure 3. Percentage of programs participating in TQRIS, by program type, 2012-2016

Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of all center-based programs (from the four program types) in the seven states included in this analysis ranged from 14,287 in 2012 to 14,100 in 2016. To facilitate comparisons across years, analysis included only states with data in all years. It excluded California and Ohio.

Figure reads: Thirteen percent of all licensed centers that did not receive subsidies participated in TQRIS in 2012; 28 percent of licensed centers that did not receive subsidies participated by 2016.

pre-K = prekindergarten; RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

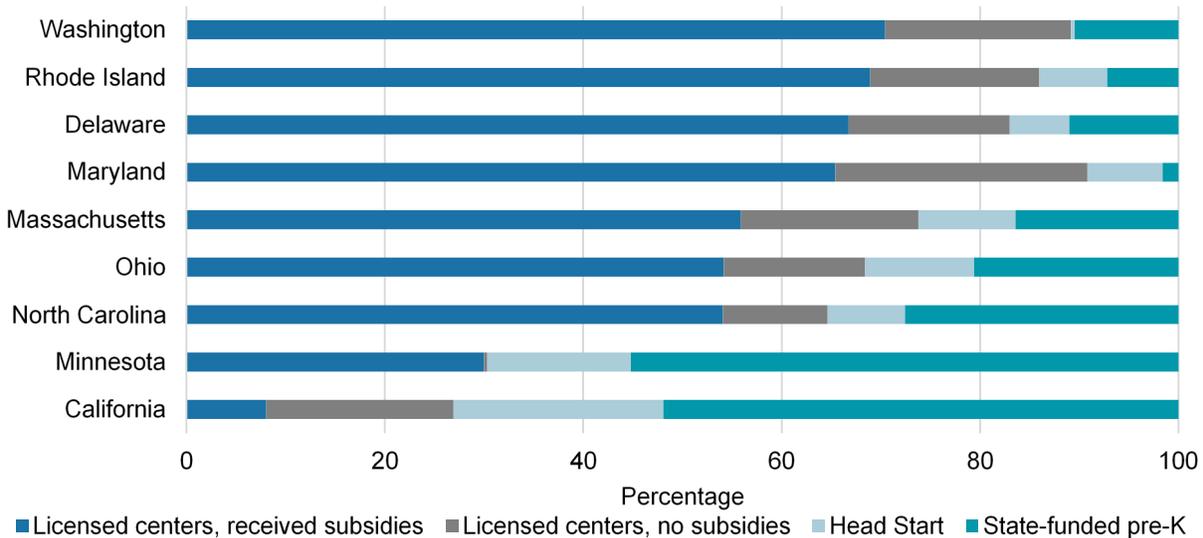
Licensed centers that received subsidies accounted for the majority of programs participating in the TQRIS in 2016 in seven of the nine RTT-ELC Round 1 states. In the seven states, these centers represented 54 to 70 percent of participating programs (Figure 4). In the other two states—California and Minnesota—state-funded pre-K programs accounted for the majority of TQRIS participating programs.

The prevalence of each type of participating program might be due to some degree to the following factors:

- Relative prevalence of early learning and development programs operating in each state.** In the seven states where licensed centers that received subsidies represented the majority of participating programs, these centers also represented the largest proportion of programs that served low-income children operating in those states, exceeding that for state-funded pre-K and Head Start programs combined (Appendix A, Figure A.1). In contrast, both California and Minnesota had more state-funded pre-K programs operating in the state (or 16 counties in the case of California) than they had licensed centers that received subsidies and Head Start programs combined.
- TQRIS policies that were intended to promote participation of particular types of programs.** Six of the seven states where licensed centers that received subsidies were in the majority (all but Massachusetts) offered financial incentives (tiered reimbursement rates) to these programs if they participated in TQRIS; these states paid higher subsidies per child to centers that participated than to centers that did not. Massachusetts did not offer these financial incentives, but it required licensed centers that received subsidies to

participate in the system. In the two states where licensed centers that received subsidies were in the minority of participating programs, Minnesota offered these programs financial incentives but California did not. In addition, Minnesota—one of the two states in which state-funded pre-K programs represented the majority of TQRIS participating programs—provided alternative pathways to these programs to encourage them to participate.

Figure 4. Composition of TQRIS participating programs, by state, 2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of TQRIS-rated programs was 13,357 in 2016. Analysis included licensed centers, Head Start programs, and state-funded prekindergarten programs that were considered participating by each state, including those that had not yet received a rating. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

Figure reads: Of the programs that were rated by TQRIS in 2016 in California, 8 percent were licensed centers that received subsidies, 19 percent were licensed centers that did not receive subsidies, 21 percent were Head Start programs, and 52 percent were state-funded pre-K programs.

pre-K = prekindergarten; RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

How did the percentage of programs in the top TQRIS rating levels change from 2012 to 2016 in the nine states? Did the distribution of ratings shift toward the higher levels over time?

1. Most states experienced modest increases in the percentage of programs in the top two TQRIS rating levels during the analysis period.

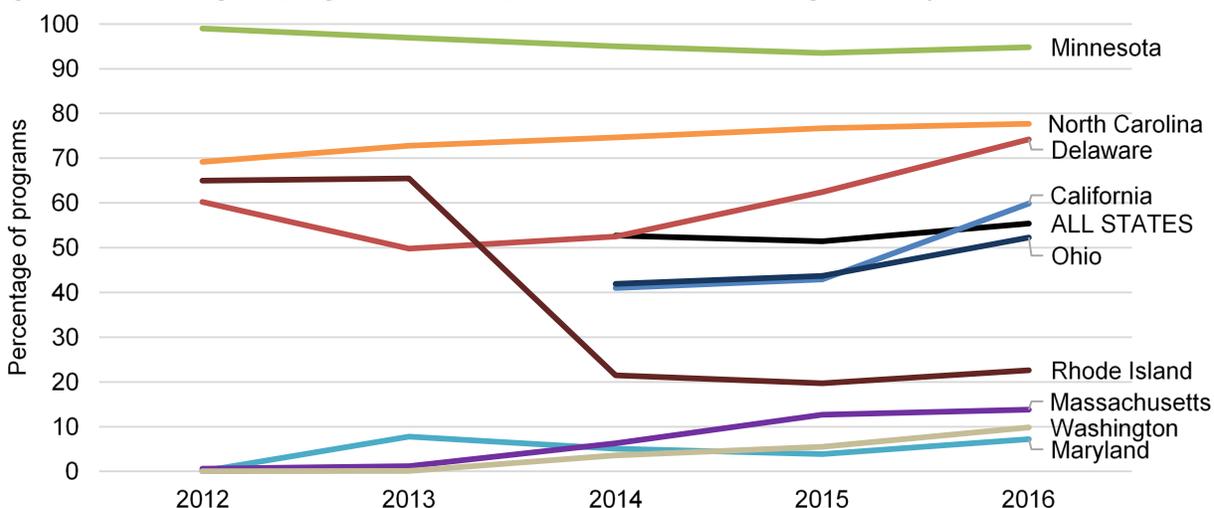
To promote access to high quality programs, RTT-ELC states aimed to increase the number and percentage of programs in the top levels of the TQRIS. This discussion focuses on the top two rating levels, but findings are similar for the full distribution of ratings across the levels (see Appendix B, Figures B.2 to B.10, for ratings distributions by state from 2012 to 2016).

Most states had modest gains in the percentage of programs in the top two rating levels over the study period. The majority of programs across all states were rated at the highest or second-highest rating level in each year from 2014 to 2016 (Figure 5). The percentage of programs at the highest or second-highest rating level was slightly higher in 2016 than in 2014 (55 and 53 percent, respectively).

However, the nine states had markedly different patterns in the percentages of programs in the top levels. In seven of the nine states, the percentage of top-rated programs was higher by 2016 than it was at the start of the analysis period, but many states did not experience a consistent increase over time. The most substantial increase in top-rated programs occurred in California from 2014 to 2016, possibly due, in part, to the entry of many state-funded pre-K programs that were rated at high levels.

Two states experienced decreases in the percentage of programs in the top levels over time. In Minnesota, the decrease was small, and the state still had the highest percentage of top-rated programs among all nine states in 2016. In Rhode Island, the percentage of programs at the top levels dropped considerably in 2014, coinciding with an influx of licensed centers that entered at low rating levels. The small number of TQRIS participating programs in Rhode Island might have made the distribution of programs at the top levels sensitive to any change in the types of programs participating.

Figure 5. Percentage of programs in the top two state-defined rating levels, by state, 2012-2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 5,414 in 2012 to 13,357 in 2016. Analysis included only programs that were rated. Ratings are measured at TQRIS entry and in June of each following year. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level. Only the top two state-defined rating levels were considered for this analysis. Massachusetts started granting the second highest and highest rating levels in January and November 2014, respectively. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The figure omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016.

Figure reads: Less than 1 percent of programs in Massachusetts were rated in one of the top two state-defined rating levels in 2012; 14 percent were rated in the top two levels by 2016.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

How did TQRIS participating programs in the nine states achieve the top two rating levels by 2016? Did they enter at the highest rating levels or did they improve to achieve higher ratings?

To increase the number of programs at the top rating levels, RTT-ELC states could either encourage programs that were already high quality to enter TQRIS or encourage lower-quality programs to participate in TQRIS and motivate them to improve. The latter is a key way that TQRIS intend to increase access to high quality programs. This section examines whether

programs that entered TQRIS in RTT-ELC states already had high ratings at entry or had low ratings at entry and, thus, room for improvement.

1. Entry ratings varied across programs, with most state-funded pre-K and Head Start programs entering at high rating levels and most licensed centers entering at low rating levels.

Entry ratings for different types of programs varied substantially. Forty percent of all programs that entered the TQRIS during the study period received one of the two highest rating levels and slightly more than half (53 percent) received one of the two lowest ratings (Figure 6). This section presents findings by program type, but ratings at entry also varied by state (see Appendix B, Figure B.11).

Most state-funded pre-K and Head Start programs that participated in TQRIS entered the system at the highest or second-highest level. Nearly 60 percent of state-funded pre-K and Head Start programs entered TQRIS at one of the top two rating levels.

States' policies regarding ratings at entry might partially explain these high ratings. For example, because state-funded pre-K and Head Start programs meet external quality standards, many states automatically award these programs credit for meeting certain TQRIS components or rating levels when they enter TQRIS. States could also require these programs to achieve a certain rating level to be eligible for funds. Seven states had at least one policy in place that could fast-track these types of programs to high rating levels:

- Three states offered alternative pathways to higher-level ratings to state-funded pre-K programs.
- Four states offered alternative pathways to Head Start programs.
- Delaware automatically rated both state-funded pre-K and Head Start programs at the second-highest level upon TQRIS entry.
- Two states required programs to achieve the second-highest or highest level to be eligible to receive state pre-K funds.

Characteristics that could influence ratings at entry:

- Requirement that programs must enter at lowest level

Policies that could influence ratings at entry:

- Alternative pathways
- Automatic ratings
- Rating level funding requirement

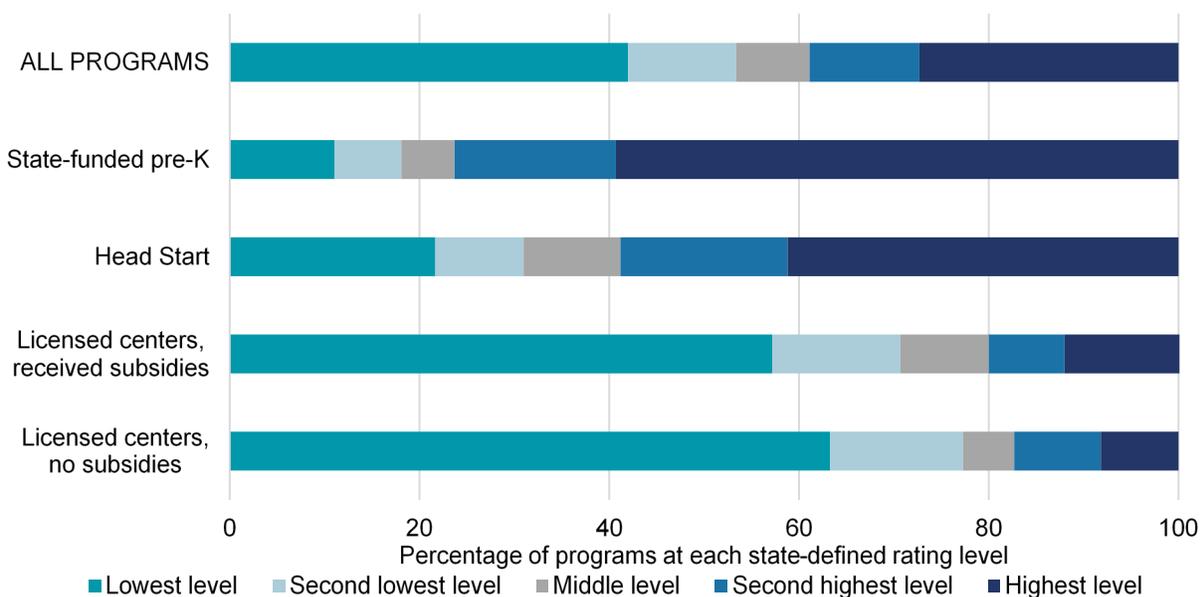
However, because state-funded pre-K and Head Start programs meet external quality standards, it is possible they would still receive the same rating if they had gone through states' full rating process. Previous research does not clearly indicate whether they would receive the same ratings. Some TQRIS studies in RTT-ELC Round 1 states found that programs that entered through the alternative pathway had similar scores on observational measures of quality as programs that received a high rating level through the TQRIS rating process (Tout et al. 2016; Roberts et al. 2016). However, another study found that state-funded pre-K programs that served a majority of low-income children and entered through an alternative pathway had lower observational scores than regularly rated programs at the highest levels (Karoly et al. 2016).

The majority of licensed centers (including those that did and did not receive subsidies) entered the TQRIS at the lowest rating level, and thus had room for improvement. This could be due partly to states' entry requirements for licensed centers. Four states required licensed

centers to enter the TQRIS at the lowest rating level, unless they met external quality standards (such as NAEYC accreditation). However, most licensed centers participating in TQRIS did not have NAEYC accreditation.

Another potential explanation for licensed centers receiving lower ratings at TQRIS entry than Head Start and state funded pre-K programs is the age range of the children they serve. Licensed centers often serve infants and toddlers in addition to preschool-age children. Meeting standards for infants and toddlers might be more challenging because of requirements such as smaller group sizes and those associated with diapering and other health and safety issues. For example, a study of potential TQRIS designs in California found that center-based classrooms serving infants and toddlers received lower scores on observational measures of quality than classrooms serving preschool-age children (Karoly and Zellman 2012).

Figure 6. Percentage of programs that attained each state-defined rating level at TQRIS entry, by program type, 2012-2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs was 9,658. Analysis included only programs that entered between 2012 and 2016. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The figure omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016.

Figure reads: Eleven percent of state-funded pre-K programs entered TQRIS at the lowest state-defined rating level, 7 percent at the second lowest level, 6 percent at the middle level, 17 percent at the second-highest level, and 59 percent at the highest level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

2. Many programs remained at the same level during the study period, but some moved up from lower ratings over time.

States aim to increase the availability of high quality programs for low-income children by moving programs from low to high ratings. The degree of improvement possible within the study period depended on the ratings that programs received when they entered TQRIS and how much time they had to improve. This analysis provides a picture of movement among all programs that

participated during the analysis period for each state, regardless of when the programs entered (or exited) the TQRIS.

Characteristics that could influence ratings improvement:

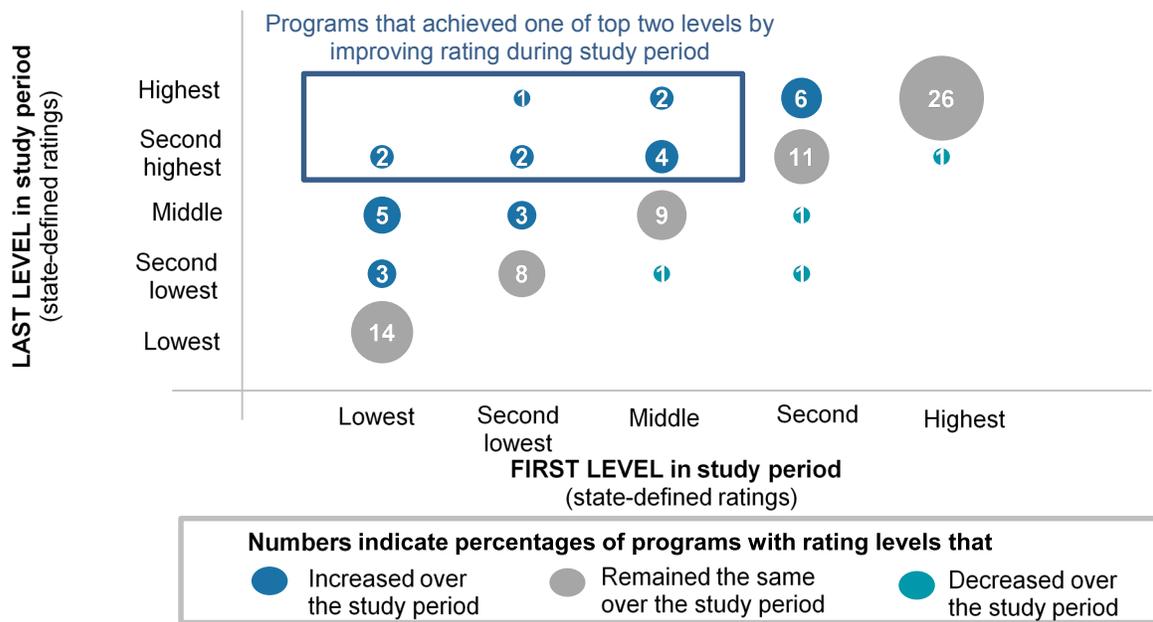
- Rating structure
- Requirement that programs must enter at lowest level
- Validity period for ratings

Policies that could promote ratings improvement:

- Financial incentives, such as quality improvement grants or tiered reimbursement rates

Most programs remained at the same rating level during the study period, but some increased their rating level over time. Over half of programs were in one of the three lowest rating levels at the beginning of the study period. Eleven percent of programs were able to achieve one of the top two levels by improving their rating during the study period (Figure 7, dark blue bubbles in outlined box). Another 44 percent of programs had a first and last rating at the highest or second-highest level; the majority of these (37 percent of all programs) retained the same rating over this period (the two highest gray bubbles in Figure 7). Like programs’ ratings at entry, patterns of movement to higher ratings differed across program types.

Figure 7. Changes in programs’ state-defined ratings over the study period, all program types, 2012–2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

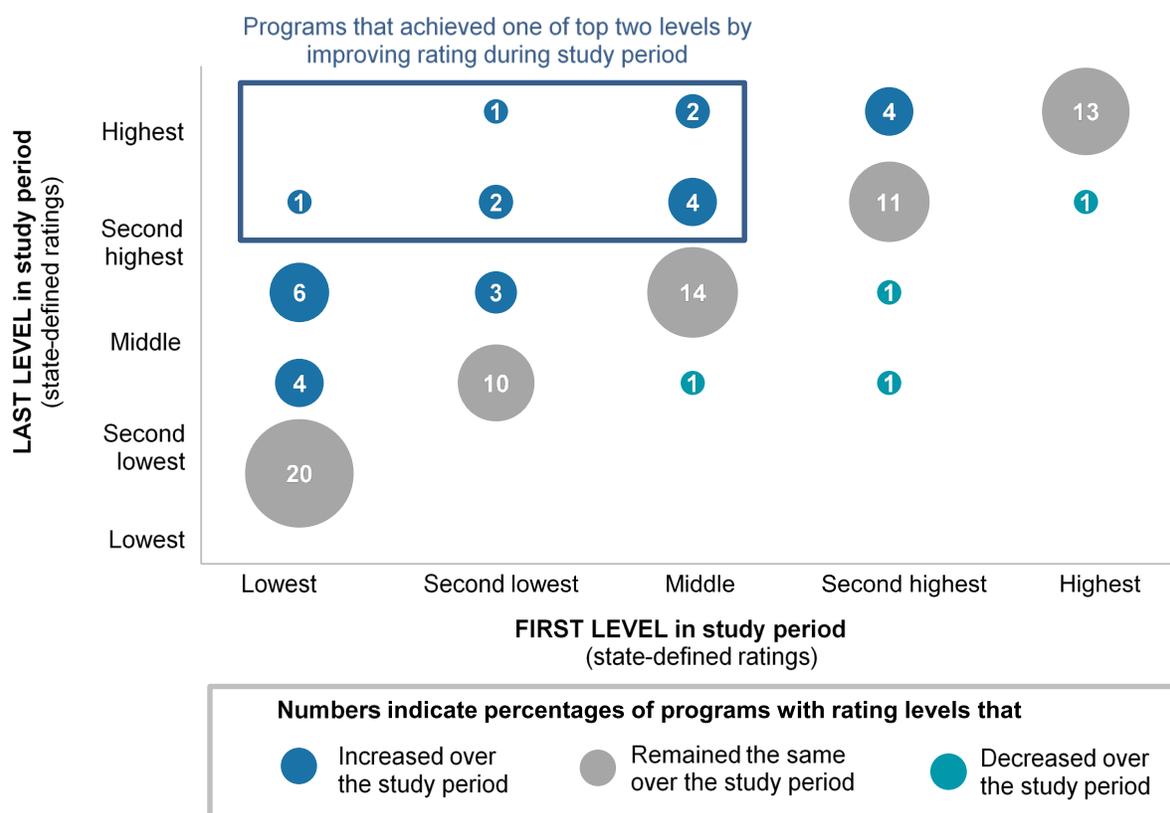
Notes: The total number of programs was 14,042. Figure includes all programs that participated in TQRIS in the nine states for any period from 2012 through 2016 (except those that entered in 2016) and examines the change in ratings from the first rating in the analysis period to the last rating in the analysis period. Rating level changes are reported for the full period of 2012 to 2016 for seven states, and 2014 to 2016 for California and Ohio. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. Rating categories reflect the order of ratings within states’ rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level.

Figure reads: Fourteen percent of programs were at the lowest state-defined rating level at the beginning of the study period and remained at that rating for the entire study period.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Over one-quarter of licensed centers that received subsidies achieved higher ratings over the period, but most did not end up at the top rating levels. Forty-four percent of licensed centers that received subsidies were at one of the three lower rating levels at the beginning of the study period, and remained at the same level over this period (the three lowest gray bubbles in Figure 8). Some centers might not have had time to improve by multiple levels, or at all, if they entered later in the study period. One in 10 licensed centers that received subsidies was able to achieve one of the two highest levels by improving their rating over the period (the dark blue bubbles in the outlined box). Another 4 percent improved from the second-highest to the highest rating level. Thirteen percent improved from the lowest or second-lowest rating but did not reach one of the top levels. (Licensed centers that did not receive subsidies had similar patterns of movement, presented in Appendix B, Figure B.12.)

Figure 8. Changes in programs’ state-defined ratings over the study period, licensed centers that received subsidies, 2012–2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

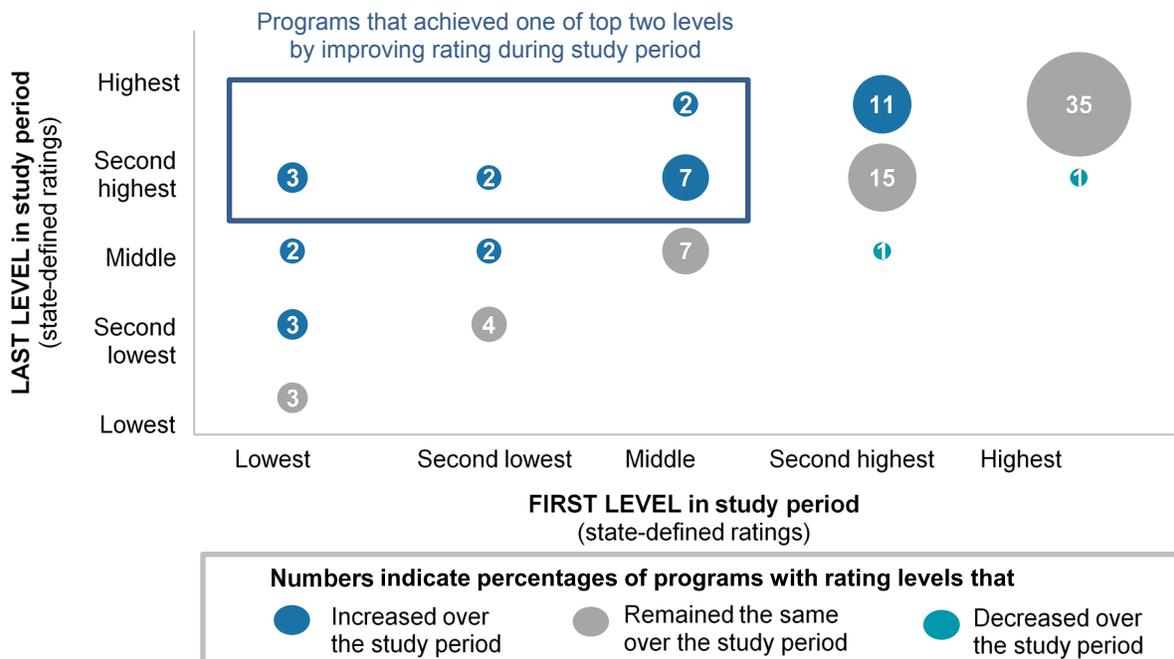
Notes: The total number of programs was 6,740. The figure includes all licensed centers that received subsidies that participated in TQRIS in the nine states for any period from 2012 through 2016 (except those that entered in 2016) and examines the change in ratings from the first rating in the analysis period to the last rating in the analysis period. Rating level changes are reported for the full period of 2012 to 2016 for seven states, and 2014 to 2016 for California and Ohio. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. Rating categories reflect the order of ratings within states’ rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level.

Figure reads: Twenty percent of licensed centers that received subsidies were at the lowest state-defined rating level at the beginning of the study period and remained at that rating for the entire study period.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Nearly one in three Head Start programs moved to a higher rating level over the period, even though many were in the top ratings to start. Half of Head Start programs were at one of the two highest levels at the beginning of the study period, and remained at the same level over this period (the two highest gray bubbles in Figure 9). Fourteen percent improved to achieve one of the two highest rating levels (the dark blue bubbles in the outlined box). Another 11 percent improved from the second-highest to the highest level.

Figure 9. Changes in state-defined ratings over the study period, Head Start programs, 2012–2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Notes: The total number of programs was 1,566. The figure includes all Head Start programs that participated in TQRIS in the nine states for any period from 2012 through 2016 (except those that entered in 2016) and examines the change in ratings from the first rating in the analysis period to the last rating in the analysis period. Rating level changes are reported for the full period of 2012 to 2016 for seven states, and 2014 to 2016 for California and Ohio. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level.

Figure reads: Three percent of Head Start programs were at the lowest state-defined rating level at the beginning of the study period and remained at that rating for the entire study period.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

State-funded pre-K programs experienced the least movement over the study period because they had high ratings to start. About 21 percent of state-funded pre-K programs achieved a higher rating level over the study period (Appendix B, Figure B.13). The majority of them had a rating at the very highest level at the beginning of the study period and stayed at that level (56 percent). Another 12 percent had a rating at the second-highest level at the beginning of the study period and stayed there.

3. Percentages of top-rated programs by 2016 and how they reached that level differed substantially by state.

The analysis presented above examines entry and movement among all programs that participated in TQRIS during the RTT-ELC period. In this section, we focus on how the set of programs that received ratings in the top two levels in 2016—the end of the RTT-ELC period—had attained those ratings. Among programs that received top ratings at entry, we distinguish between programs that were eligible for an alternative pathway or automatic rating based on their state’s policies and those that were not.

States differed in the percentages of programs that achieved ratings in the top two levels by 2016 and how programs reached those levels. For example, in Minnesota, nearly all programs participating in TQRIS received one of the two highest rating levels in 2016 and had achieved those ratings at entry (Figure 10). North Carolina also had a substantial majority of programs reach top rating levels by 2016, but most of its programs already had these ratings at the start of the analysis period in 2012. A majority of programs also achieved top rating levels in Delaware, California, and Ohio, but roughly equal portions in those states achieved these ratings through high ratings at entry and ratings improvement. In contrast, few programs in Maryland, Massachusetts, Rhode Island, and Washington were at top rating levels by 2016.

Several TQRIS characteristics and policies might have contributed, in part, to these patterns:

- **Length of TQRIS implementation.** North Carolina had the longest-running TQRIS of the nine states, which could have given programs more time to reach top rating levels and is one possible explanation for why so many programs had already reached those levels by 2012. In contrast, two of the states with the lowest percentages of programs at top rating levels (Washington and Maryland) were just launching their TQRIS when they received their RTT-ELC grants in 2012. Massachusetts also had a relatively new TQRIS and did not start granting the two highest rating levels until 2014, in the middle of the study period.
- **Rating structure.** The three states with building block rating structures (Maryland, Massachusetts, and Rhode Island) had low percentages of programs that achieved top rating levels at entry or through ratings improvement. One possible explanation for this is that building block rating structures might make movement up the ratings more challenging because programs must meet all standards at each rating level before progressing to the next level. Hybrid and points rating structures might offer programs greater flexibility than building block structures in meeting requirements for the higher levels.
- **Validity period for ratings.** Delaware, Ohio, and Maryland had the shortest validity periods (one year for programs in Maryland and one year for programs in the low rating levels in Delaware and Ohio). This is one possible explanation for why ratings in Delaware and Ohio improved in these states—lower-rated programs might have reapplied for ratings relatively quickly.
- **Alternative pathways and automatic ratings.** Minnesota was the only state that offered an alternative TQRIS pathway to all programs that meet external quality standards (including state-funded pre-K, Head Start, and NAEYC-accredited programs). The vast majority of programs that achieved one of the two highest rating levels in Minnesota were eligible for the alternative pathway. In contrast, in other states, lower percentages of

programs that reached top rating levels were eligible for either alternative pathways or automatic ratings.

- Rating level funding requirement.** North Carolina’s requirement that licensed centers that received subsidies and state-funded pre-K programs meet minimum rating levels—the middle level and second-highest level, respectively—to receive public funding might have contributed in some way to its high percentages of programs that reached top rating levels. These types of programs represented the substantial majority of TQRIS participating programs in North Carolina in 2016. Massachusetts and Maryland also had these types of policies, but licensed centers, not state-funded pre-K programs, represent the majority of participating programs in those states.
- Financial incentives.** All of the states except two (California and Massachusetts) offer tiered reimbursement rates, which increase the subsidies programs receive for serving low-income children as programs attain higher rating levels. These subsidies might contribute, at least partially, to ratings improvement, particularly among licensed centers that receive subsidies, which enter at low ratings.

Characteristics that could influence attainment of the top rating levels:

- Length of TQRIS implementation
- Rating structure (building block, points, or hybrid)
- Validity period for ratings

Policies that could promote attainment of the top rating levels:

- Alternative pathways
- Automatic ratings
- Rating level funding requirement
- Financial incentives, such as quality improvement grants or tiered reimbursement rates

The nine Round 1 states also differ on many other dimensions, such as the composition of programs in each state, the way in which TQRIS publicize ratings to families, the characteristics of families seeking child care, and the presence of other quality initiatives beyond TQRIS. Therefore, other potential explanations (beyond those discussed here) for the observed patterns are possible.

Did states make progress in promoting availability of high quality programs for low-income children?

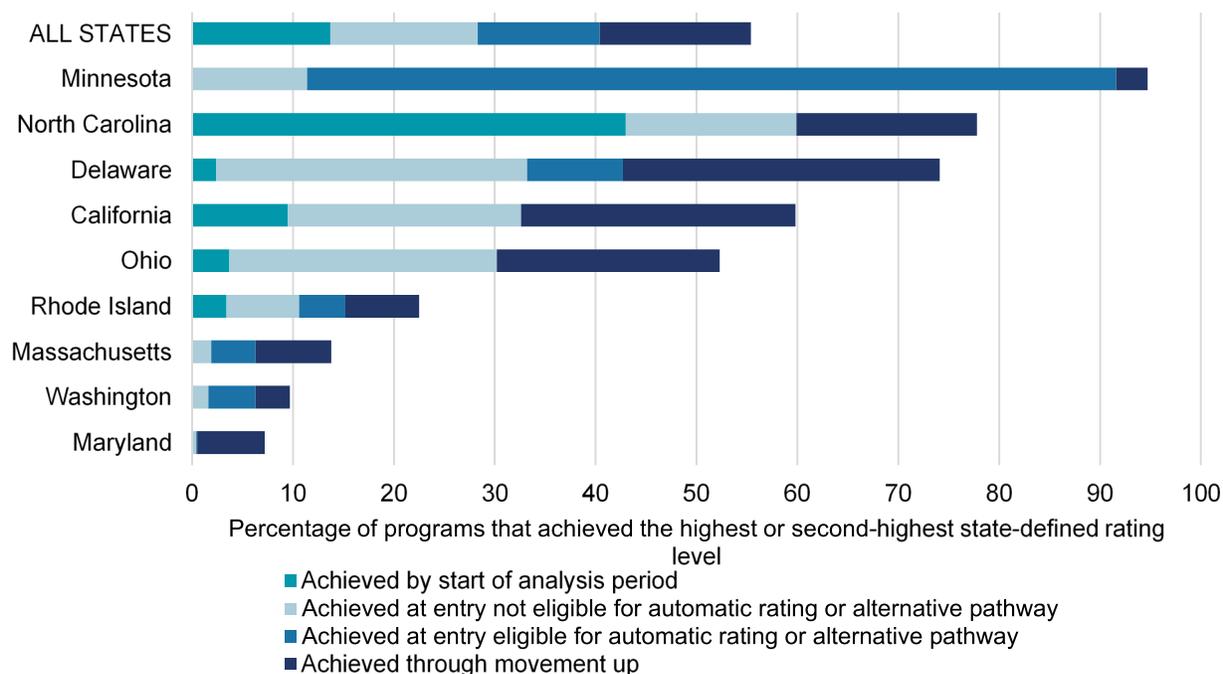
To increase the number and percentage of children with high needs who attend programs in the top rating levels, states could try to expand participation of programs that serve these children and help them improve. Children with high needs could include those from low-income families, as well as those who have disabilities or developmental delays, are English learners, or are migrant, homeless, or in foster care, in addition to other factors the states identified. To examine the percentage of high-needs children who attended programs in top rating levels, we focused on the number of children in licensed centers that received subsidies (some of these children came from low-income households).⁵

1. States did not consistently provide information on the number of children with high needs who attend each TQRIS-participating center.

RTT-ELC aimed to support integration of state early learning and development systems, but the data still reside with many different agencies. States provided complete data on the total number of children a program could serve (capacity) only for licensed programs. States could not consistently provide details on the number of children served (based on enrollment or capacity

data) in Head Start and state-funded pre-K programs that were exempt from child care licensing. These data were not (1) collected or maintained by the states at the center level, (2) collected centrally, or (3) maintained historically. In addition, they could not be made readily available to merge with other data collected at the center level.

Figure 10. Percentages of programs that achieved the highest or second-highest state-defined TQRIS rating level in 2016 and how they got there, by state



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs was 13,357. Analysis was based on all programs that achieved the highest or second-highest rating level in each state in 2016. “Achieved by start of analysis period” includes programs that were at the highest or second-highest rating at the beginning of the study period (in 2014 for California and Ohio and in 2012 for the other seven states) and for which we cannot determine whether they had achieved those levels at entry. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

Figure reads: Ninety-five percent of all programs that participated in TQRIS in 2016 in Minnesota were at the highest or second-highest rating level; 11 percent of programs were not eligible for an automatic or alternate pathway and received the highest or second-highest rating level at entry, 80 percent were eligible for one of these policies and received the highest or second-highest rating level at entry, and an additional 3 percent achieved the highest level through upward movement.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

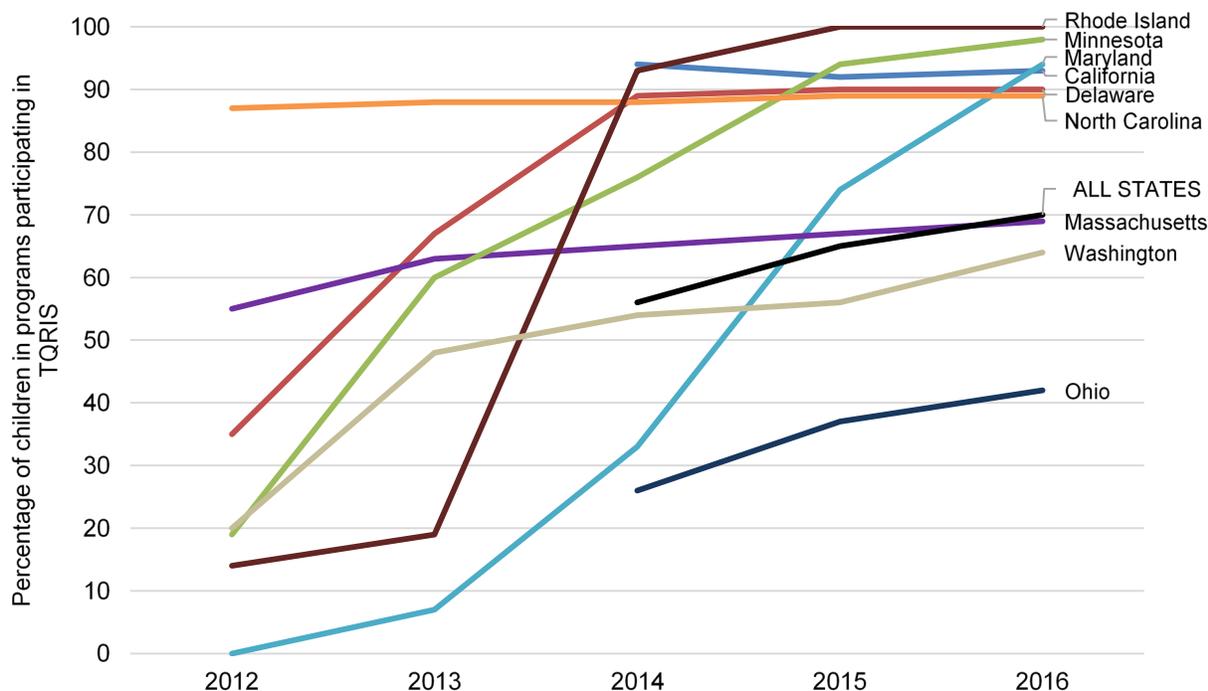
Only a few states could provide complete data on the number of low-income children supported through child care subsidies in a center-based program. None of the states could provide data at the center level on the number of children supported with either Head Start or state pre-K funds. The lack of data prevents looking longitudinally at patterns in the number of low-income children in TQRIS-participating programs and in programs that achieve the top rating levels.

2. States might have increased the availability of high quality programs for low-income children by using policies intended to promote participation among licensed centers that received subsidies.

For all children who attended licensed centers that received subsidies, we examined the percentages who were in TQRIS-participating centers during the analysis period and the percentage in centers in the top rating levels in 2016.

States increased the percentage of children served in licensed centers that received subsidies that were in TQRIS-participating centers during the analysis period. By 2016, in every state except Ohio, the majority of children served by licensed centers that received subsidies were in centers that participated in TQRIS, mirroring the growth in TQRIS participation among these centers (discussed earlier). Across all states, the percentage of children in licensed centers that received subsidies in TQRIS-participating programs rose from 56 percent in 2012 to 70 percent in 2016 (Figure 11).

Figure 11. Percentages of children served in licensed centers that received subsidies that participated in TQRIS, by state, 2012–2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

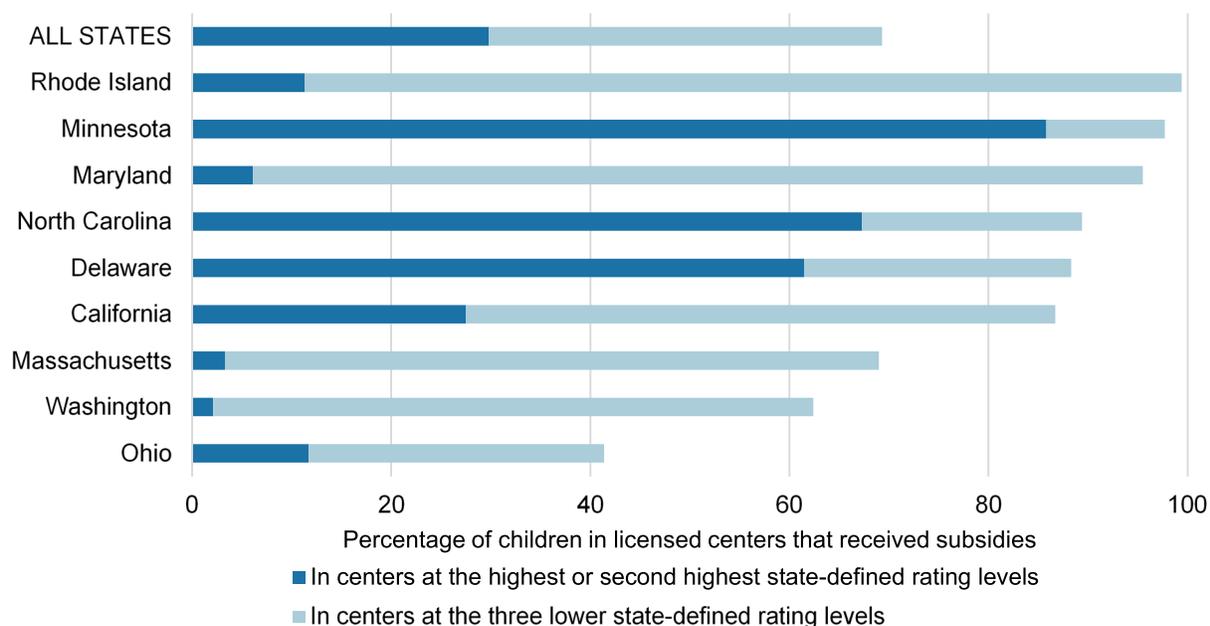
Note: The total number of all licensed centers that received subsidies in the states for which the analysis calculated the number of children ranged from 6,935 in 2012 to 9,210 in 2016. Analysis is based on licensed capacity for licensed centers that received subsidies with a TQRIS rating level in each year. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The figure omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016. Maryland implemented TQRIS in 2013; therefore, no programs were participating in 2012.

Figure reads: Fourteen percent of all children served in licensed centers that received subsidies in 2012 in Rhode Island were in a center that participated in TQRIS; 100 percent of these children were in a center that participated in TQRIS by 2016.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Most children served by licensed centers that received subsidies were not in programs at the top rating levels by 2016. Most children served in licensed centers that received subsidies were in TQRIS participating centers by 2016; however, 30 percent of all children served in these centers were in top-rated centers across the states (Figure 12). In Minnesota, North Carolina, and Delaware, 60 percent or more of all children served in licensed centers that received subsidies were in programs at the highest TQRIS rating levels in 2016. However, in five states, less than 15 percent of all children in licensed centers that received subsidies were in centers that had reached the top rating levels.

Figure 12. Percentages of children served in licensed centers that received subsidies that participated in TQRIS and those served in centers that had attained one of the top state-defined rating levels in 2016, by state



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of all licensed centers that received subsidies in 2016 for which the analysis calculated the number of children was 8,852. Analysis is based on licensed capacity for licensed centers that received subsidies and, for those participating in TQRIS, had a rating level in 2016. Some centers in California, Massachusetts, and Washington are considered participating but are not rated and were excluded from this analysis. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

Figure reads: Forty-one percent of all children served in licensed centers that received subsidies in 2016 in Ohio were in a center that participated in TQRIS; 12 percent were in a center that had received the highest or second-highest state-defined rating level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

These findings suggest that states might be able to increase the numbers of licensed centers that receive subsidies that attain high ratings. Some states have high rates of TQRIS participation for these centers, but small percentages of these centers in the top two rating levels. For example, in Rhode Island, nearly all children who attended licensed centers that received subsidies in 2016 were in programs participating in TQRIS. However, 11 percent of these children were in programs at one of the top rating levels. In contrast, other states have lower rates of TQRIS participation among centers that serve low-income children. For example, in Ohio, just over 40 percent of children served by licensed centers that received subsidies were in programs participating in

TQRIS in 2016, yet about the same percentage as Rhode Island—12 percent—were in programs rated at one of the top levels. Encouraging licensed centers to achieve higher ratings is therefore one possible way to expand availability of high quality programs for low-income children.

Conclusion

Overall, the nine states were able to increase the number of top-rated programs during the RTT-ELC period in two ways. First, states expanded TQRIS participation among state-funded pre-K and Head Start programs. These programs entered at high rating levels because they met states' TQRIS standards for these rating levels, or because, before they entered TQRIS, they met external quality standards that states used as proxies for meeting certain components or rating levels. Second, the nine states moved licensed centers that received subsidies from lower to higher rating levels over time. However, in 2016, most children served by licensed centers that received subsidies still were not in centers that received top rating levels. This suggests that states might be able to continue to expand the availability of high quality programs for low-income children by continuing to encourage quality improvements in these programs.

As states continue to develop and refine their TQRIS, several avenues of additional research could further inform policy and practice. First, this brief found that states could not provide data on the number of children with high needs that programs serve. Collecting these data consistently at the center level across the different types of funding sources could help states better monitor progress toward increasing the number of children with high needs served by programs in the top rating levels. This could also facilitate additional research aimed at increasing children's access to high quality programs. Second, the analyses presented in this brief aggregate the data across the nine states to describe patterns of participation and movement by program type; there may also be important differences that exist between the states.

Third, this brief discusses TQRIS characteristics and policies that might partially contribute to the observed patterns, but it does not isolate the effect of any TQRIS characteristic or policy on programs' participation or ratings. Therefore, additional research is needed to provide evidence on the effects of these TQRIS characteristics and policies on programs' outcomes. This research might include studies that use research designs that randomly vary the incentives, technical assistance, or professional development that programs received.

Finally, this brief examines whether programs attained higher ratings, but higher ratings might not improve outcomes for children if these ratings do not convey meaningful differences in program quality. One report that synthesized TQRIS validation studies found that higher-rated programs had higher scores on observational measures of quality than lower-rated programs, but there was limited evidence that differences in quality translated to differences in children's outcomes (Tout et al. 2017). As TQRIS continue to be refined, research could continue to examine the relationship between TQRIS ratings and children's outcomes.

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Endnotes

- ¹ For more information on the history and implementation of TQRIS, see the report from this study, Kirby et al. (2017).
- ² Information from BUILD Initiative (2017) on the current 44 TQRIS indicates a wide range in characteristics such as rating structure and validity period. For example, 18 TQRIS use a hybrid rating structure, 19 a building block, and 7 a points structure. The validity period is three years in 17 TQRIS, two years in 9, one year in 8, and a period that falls outside these categories in 10 TQRIS.
- ³ Rhode Island did not call its incentives tiered reimbursement but they functioned in the same way and we classified the policy as such for cross-state aggregation.
- ⁴ Both California and Ohio had increases in participation rates for all program types from 2014 to 2016. The pattern of participation among program types in California was similar to that of the other states. In Ohio, Head Start programs had the highest participation rates, more than double that of all the other types.
- ⁵ Not all states could provide data on the specific number of subsidized children served in each center, so the analysis focused on total capacity of these centers.

APPENDIX A. METHODS AND SAMPLE SIZES

State administrative data sources. The administrative data we collected came from multiple sources within each state. The landscape of center-based early learning and development programs that serve young children is quite diverse, and states have typically decentralized program oversight. For example, often distinct offices with separate data systems administer licensing and child care subsidies but both are generally under the auspices of a state’s human or social services agency, state-funded pre-K programs are generally under the state’s department of education, and Head Start is a federally administered program. The RTT-ELC grants aimed, in part, to support the integration of state early care and education systems, but the data still reside in many different agencies and entities. As a result, the data we requested came from multiple sources within each state. In five states (Maryland, Massachusetts, Minnesota, North Carolina, and Washington), we worked with a main contact in one department who coordinated with others in the state to gather and submit the data. In the four other states (California, Delaware, Ohio, and Rhode Island), we obtained data from a variety of sources.

Standardizing variables across states. We used information from multiple sources to maximize our ability to determine licensing status, funding sources, and program closings and to build a longitudinal analysis file for each state. To analyze results across states, we used a consistent method to construct variables from the raw data each state provided. Our definitions of program types or other program elements may not exactly match each state’s definition. As a result, the numbers in this brief may differ from those in the annual progress reports that states submitted to the U.S. Department of Education for RTT-ELC. The data from the state RTT-ELC yearly reports are difficult to assess across states, given the differences in data coverage of children and programs, the methods of classifying programs by type, and the methods of counting programs in rating levels. In addition, because those data represent a single point in time (that is, they are not longitudinal), it is challenging to discern patterns of TQRIS entry and movement up the rating levels by specific program types over time.

Sample sizes. We collected information about all early learning and development programs in the state—both those that participated in the TQRIS and those that did not—to provide a complete picture of how availability to high quality programs may have changed under RTT-ELC. The number of early learning and development programs varies across the states and, therefore, influences the number of programs that can participate in the TQRIS. Some states count programs as participating in TQRIS before they officially receive a rating. To determine participation rates, we counted programs as participating in the same way that each state did. For analyses on ratings distribution and movement, we included only programs that had received a TQRIS rating. Table A.1 presents the numbers of all early learning and development programs, the number of TQRIS participating programs, and the number of TQRIS-rated programs for each year in the analysis period by state.

Table A.1. Total number of early learning and development programs in the nine Round 1 RTT-ELC states and number of TQRIS participating and rated programs, 2012 to 2016

State and number of programs	2012	2013	2014	2015	2016
California					
Total	n.a.	n.a.	7,616	8,406	8,442
Participating	n.a.	n.a.	1,214	2,009	2,226
Rated	n.a.	n.a.	949	1,913	2,153
Delaware					
Total	373	426	452	455	451
Participating	123	253	362	378	382
Rated	123	253	362	377	379
Maryland					
Total	1,947	1,934	1,922	1,920	1,919
Participating	0	102	447	1,011	1,266
Rated	0	102	447	1,002	1,257
Massachusetts					
Total	2,384	2,713	2,679	2,795	2,597
Participating	814	1,019	1,103	1,215	1,175
Rated	795	986	1,072	1,166	1,125
Minnesota					
Total	2,851	2,851	2,851	2,851	2,851
Participating	485	1,312	1,586	1,836	1,844
Rated	485	1,312	1,584	1,827	1,831
North Carolina					
Total	4,351	4,401	4,355	4,300	4,116
Participating	3,713	3,756	3,699	3,738	3,629
Rated	3,651	3,699	3,652	3,696	3,594
Ohio					
Total	n.a.	n.a.	6,085	6,024	5,813
Participating	n.a.	n.a.	1,141	1,561	1,739
Rated	n.a.	n.a.	1,128	1,534	1,722
Rhode Island					
Total	326	332	334	335	330
Participating	40	55	237	265	264
Rated	40	55	237	265	261
Washington					
Total	2,055	1,994	1,932	1,957	1,836
Participating	356	815	967	1,035	1,089
Rated	320	773	924	987	1,035
All states except California and Ohio					
Total	14,287	14,651	14,525	14,613	14,100
Participating	5,531	7,312	8,401	9,478	9,649
Rated	5,414	7,180	8,278	9,320	9,482
All states including California and Ohio					
Total	n.a.	n.a.	28,226	29,043	28,355
Participating	n.a.	n.a.	10,756	13,048	13,614
Rated	n.a.	n.a.	10,355	12,767	13,357

Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: Analysis counted all licensed centers, Head Start, and state-funded pre-K programs in each state. A program was considered participating if they were in the TQRIS at any point during the year. Rated programs were analyzed as of June of each year, therefore numbers of rated programs may differ slightly than number of participating programs even for states that do not generally have unrated programs. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The table omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016. Data for 2016 are from January to June.

n.a. = not applicable; RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement system.

Defining program types. To support cross-state aggregation, we developed mutually exclusive program types to mirror those typically found in the state RTT-ELC yearly reports as follows:

- *State-funded pre-K.* * Includes (1) programs in a school-based setting that received state pre-K funds; (2) programs that received only state pre-K funds, or a combination of state

pre-K and Child Care and Development Fund or other child care subsidy funds, but not Head Start; and (3) a small percentage of licensed centers that received both Head Start and state pre-K funds but did not have Head Start in the program name.

- *Head Start*. Includes (1) programs that had Head Start in their name, but also may have received Child Care and Development Fund or other child care subsidy funds, or state pre-K funding; and (2) programs that did not have Head Start in their name, but received only Head Start funding, or that received Head Start and Child Care and Development Fund or other child care subsidy funds.
- *Licensed centers, received subsidies*. Includes licensed centers that received Child Care and Development Fund or similar subsidies to support low-income children in the program but did not receive Head Start or state pre-K funding.
- *Licensed centers, no subsidies*. Includes licensed centers that did not receive Child Care and Development Fund or other child care subsidy, Head Start, or state pre-K funding.

Table A.2 presents the percentage of programs within each program type as well as the percentages, by program type, that were licensed, accredited, and received the various sources of public funding.

Table A.2. Characteristics of TQRIS participating programs in 2016, by program type

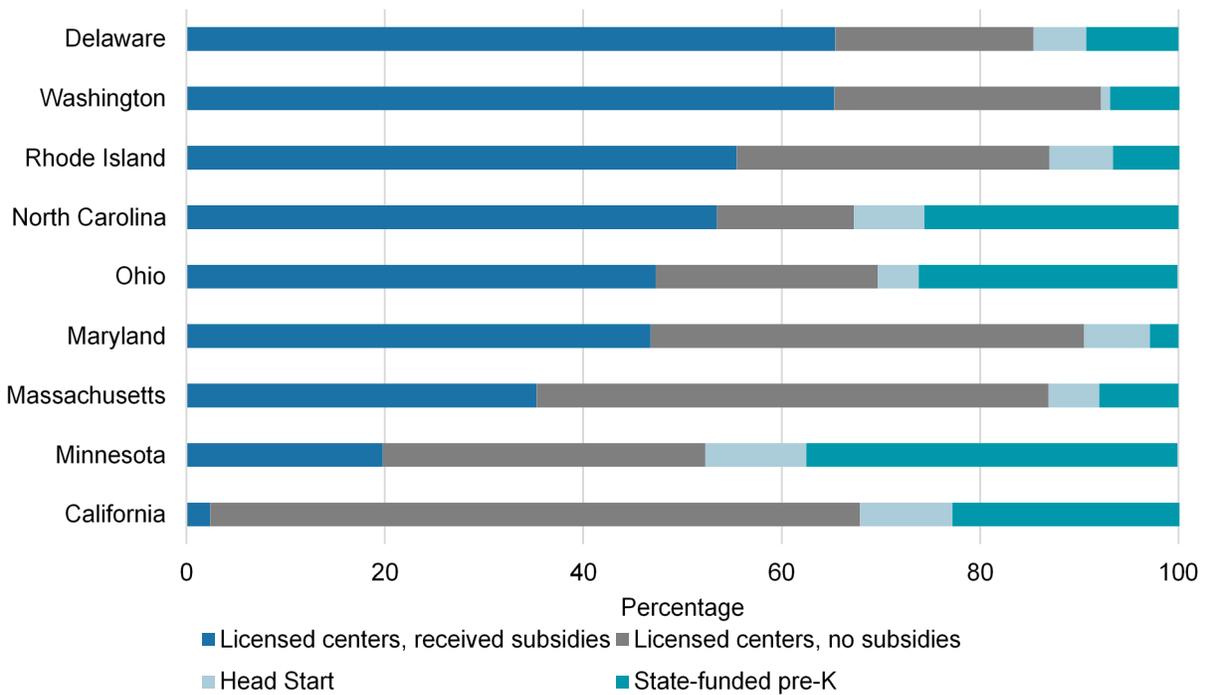
Program type	Number of programs	Percentage of programs	Percentage NAEYC accredited	Percentage licensed	Percentage of programs receiving each type of funding			
					Child care subsidies	Head Start funds	State pre-K funds	Funding from multiple sources
All programs participating in TQRIS	13,614	100	5	87	57	13	31	13
State-funded pre-K	3,920	29	2	60	28	6	100	31
School-based pre-K	2,174	16	1	28	5	2	100	6
Licensed pre-K	1,746	13	4	100	55	12	100	61
Head Start	1,468	11	5	90	26	100	19	40
Licensed, received subsidies	6,325	46	8	100	100	0	0	0
Licensed, no subsidies	1,901	14	4	100	0	0	0	0

Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: This analysis included all state-funded pre-K, Head Start, and licensed centers that each state considered participating in 2016, including those that had not yet received a rating. School-based pre-K includes a small number of license-exempt programs receiving state pre-K funding. The analysis excluded all other license-exempt programs. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement system; NAEYC = National Association for the Education of Young Children.

Figure A.1. Composition of operating programs, by state, 2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of operating programs was 28,355 in 2016. Analysis included licensed centers, Head Start programs, and state-funded prekindergarten programs that were considered operating by each state. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

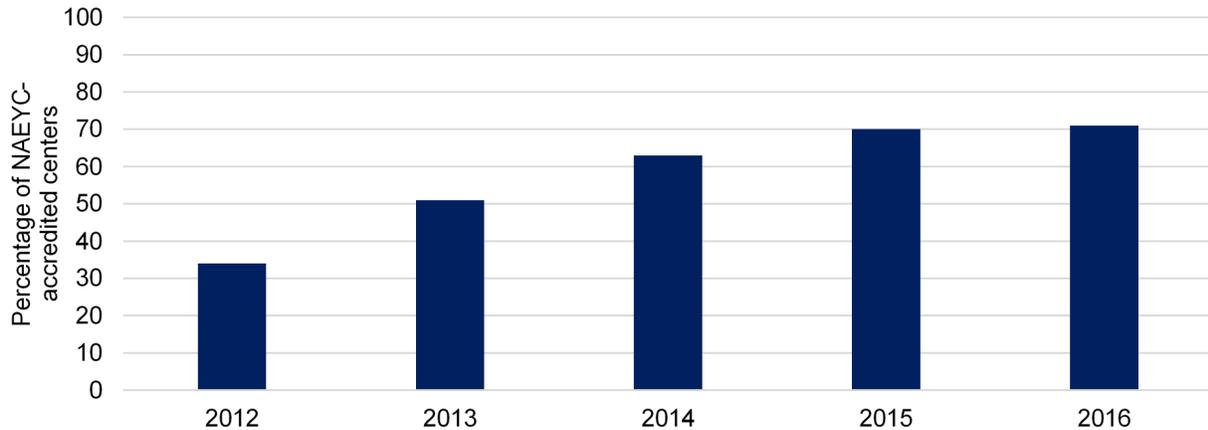
Figure reads: Of the programs that were operating in 2016 in California, 2.4 percent were licensed centers that received subsidies, 65.5 percent were licensed centers that did not receive subsidies, 9.3 percent were Head Start programs, and 22.9 percent were state-funded pre-K programs.

pre-K = prekindergarten; RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

APPENDIX B. ADDITIONAL FINDINGS

This appendix presents additional findings on participation and ratings. Figure B.1 presents participation rates of accredited programs. Figures B.2 through B.10 present the distribution of ratings in each state. Figure B.11 presents ratings at entry by state and Figures B.12 and B.13 present movement up the rating levels by program type.

Figure B.1. Percentage of NAEYC-accredited centers participating in TQRIS, 2012–2016



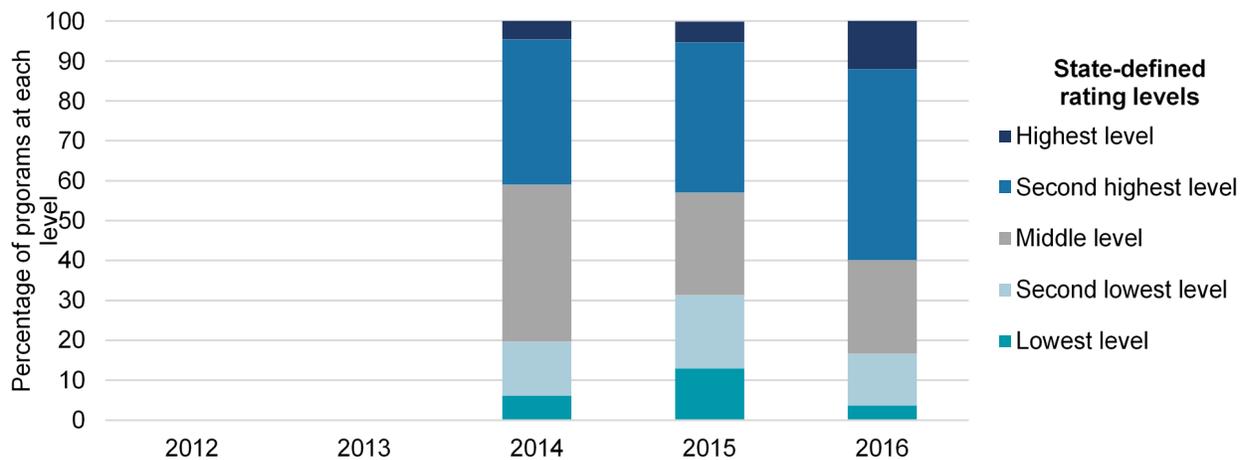
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 5,531 in 2012 to 9,649 in 2016. To facilitate comparisons across years, analysis included only states with data in all years. It excluded California and Ohio.

Figure reads: Thirty-four percent of all accredited programs participated in TQRIS in 2012; 71 percent participated by 2016.

NAEYC = National Association for the Education of Young Children; RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.2. Distribution of programs' ratings in California, 2012–2016



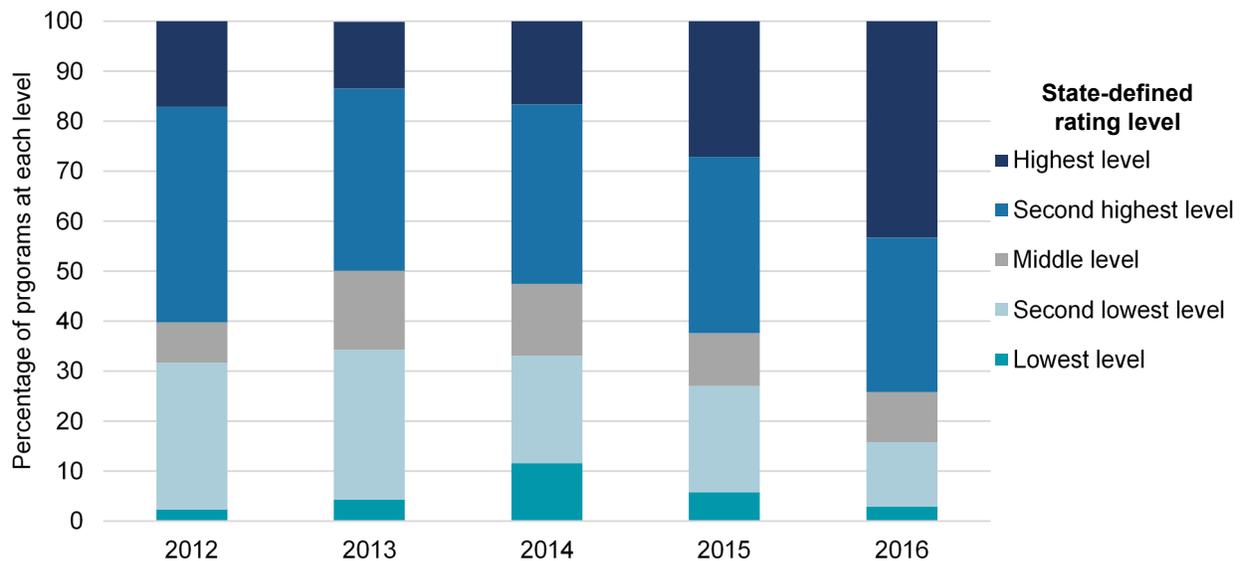
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 949 in 2014 to 2,153 in 2016. Analysis included only programs in California that were rated. Ratings were measured at TQRIS entry and in June of each following year. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide.

Figure reads: Of the programs that participated in TQRIS in 2014 in California, 6 percent were at the state-defined lowest level, 14 percent were at the second lowest level, 39 percent were at the middle level, 36 percent were at the second-highest level, and 5 percent were at the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.3. Distribution of programs' ratings in Delaware, 2012–2016



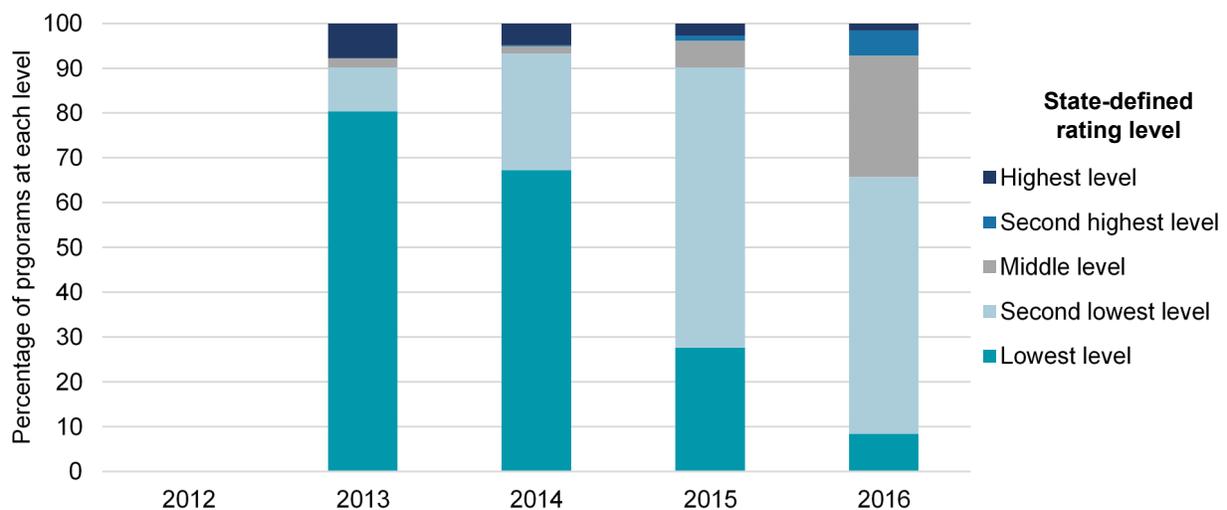
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 123 in 2012 to 379 in 2016. Analysis included only programs in Delaware that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Of the programs that participated in TQRIS in 2012 in Delaware, 2 percent were at the state-defined lowest level, 29 percent were at the second lowest level, 8 percent were at the middle level, 43 percent were at the second-highest level, and 17 percent were at the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.4. Distribution of programs' ratings in Maryland, 2012– 2016



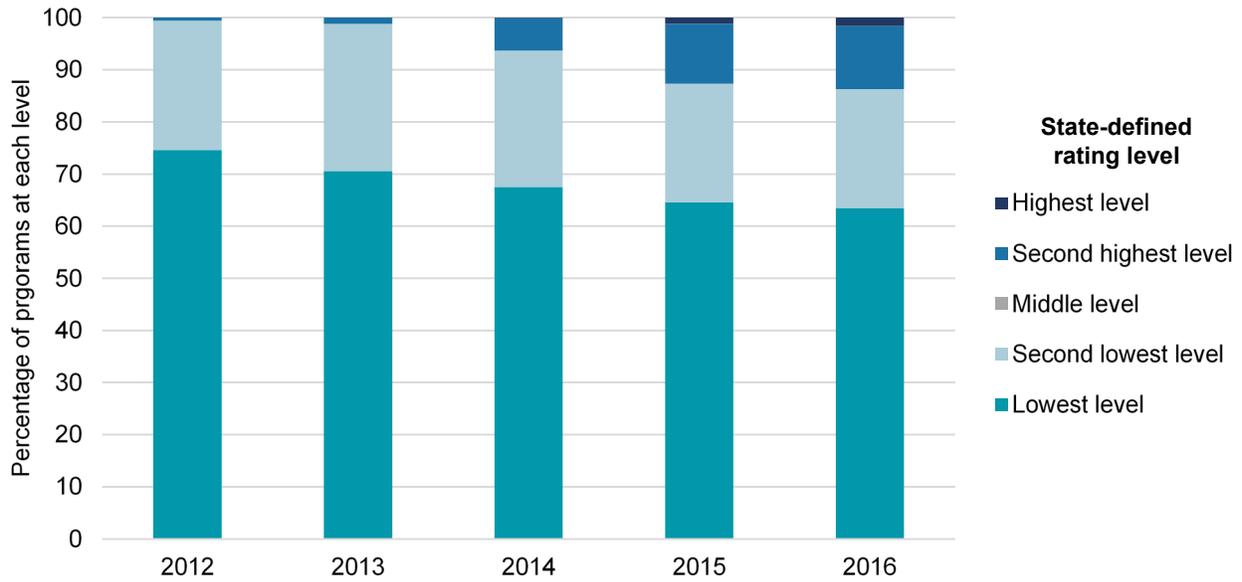
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 0 in 2012 to 1,257 in 2016. Analysis included only programs in Maryland that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Maryland did not have any programs participating in TQRIS in 2012. Of the programs that participated in TQRIS in 2013 in Maryland, 80 percent were at the state-defined lowest level, 10 percent were at the second lowest level, 2 percent were at the middle level, none were at the second-highest level, and 8 percent were at the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.5. Distribution of programs' ratings in Massachusetts, 2012–2016



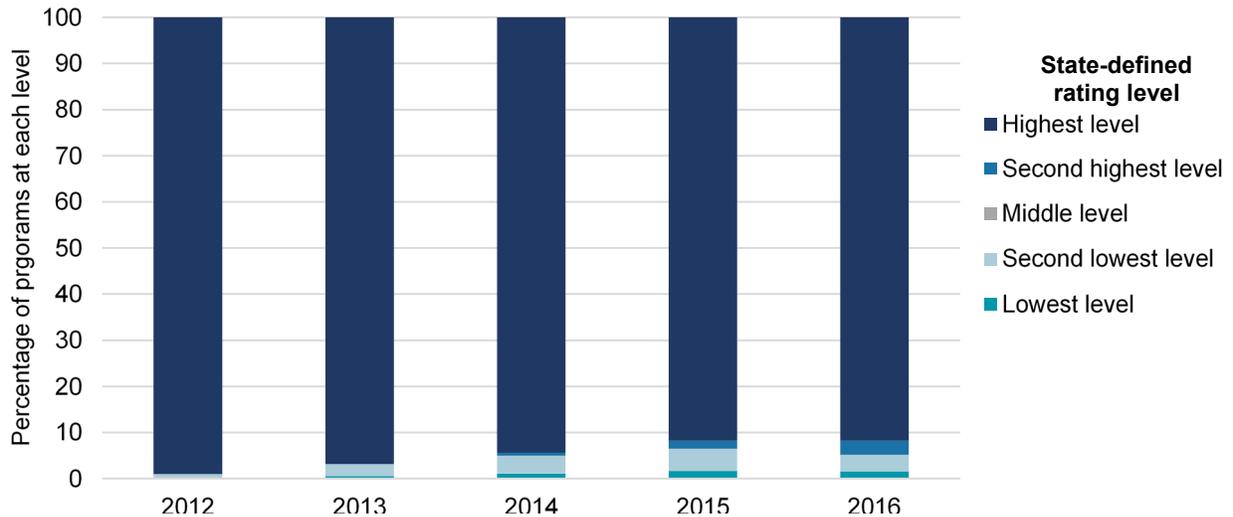
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 795 in 2012 to 1,166 in 2015. The total number was 1,125 in 2016. Analysis included only programs in Massachusetts that were rated. Ratings were measured at TQRIS entry and in June of each following year. Massachusetts has four rating levels and was considered to have no middle level. Massachusetts started granting the second highest and highest rating levels in January and November 2014, respectively.

Figure reads: Of the programs that participated in TQRIS in 2012 in Massachusetts, 75 percent were at the state-defined lowest level, 24 percent were at the second lowest level, none were at the middle level, and 1 percent were at the second-highest level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.6. Distribution of programs' ratings in Minnesota, 2012–2016



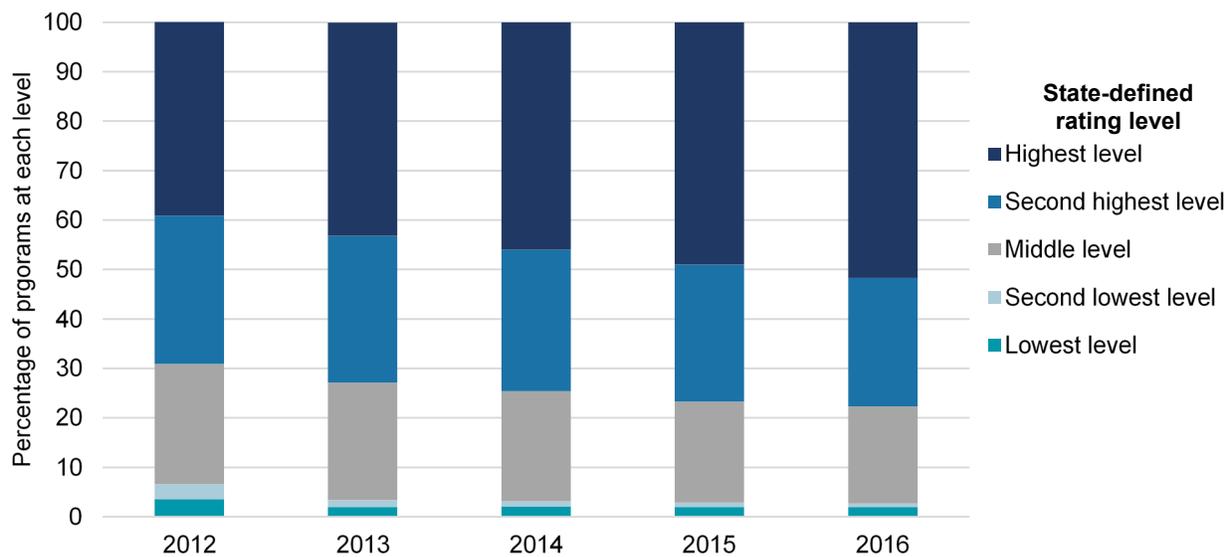
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 485 in 2012 to 1,831 in 2016. Analysis included only programs in Minnesota that were rated. Ratings were measured at TQRIS entry and in June of each following year. Minnesota has four rating levels and was considered to have no middle level.

Figure reads: Of the programs that participated in TQRIS in 2012 in Minnesota, 1 percent were at the state-defined second lowest level, and 99 percent were at the highest level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.7. Distribution of programs' ratings in North Carolina, 20 12–2016



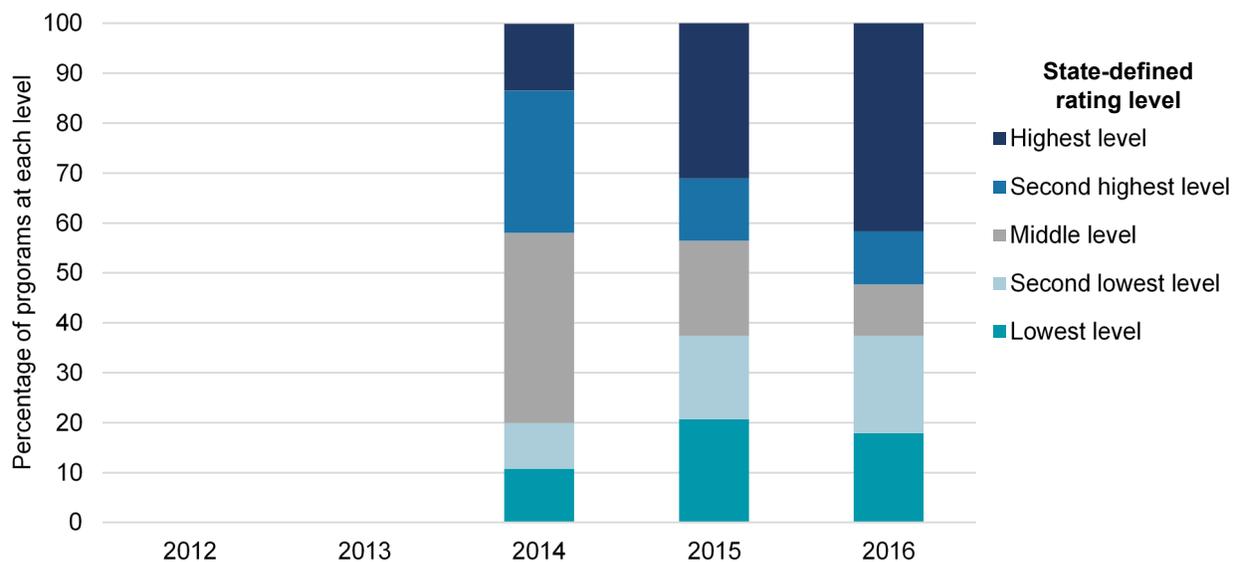
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 3,699 in 2013 to 3,594 in 2016. The total number was 3,651 in 2012. Analysis included only programs in North Carolina that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Of the programs that participated in TQRIS in 2012 in North Carolina, 4 percent were at the state-defined lowest level, 3 percent were at the second lowest level, 24 percent were at the middle level, 30 percent were at the second-highest level, and 39 percent were at the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.8. Distribution of programs' ratings in Ohio, 2012–2016



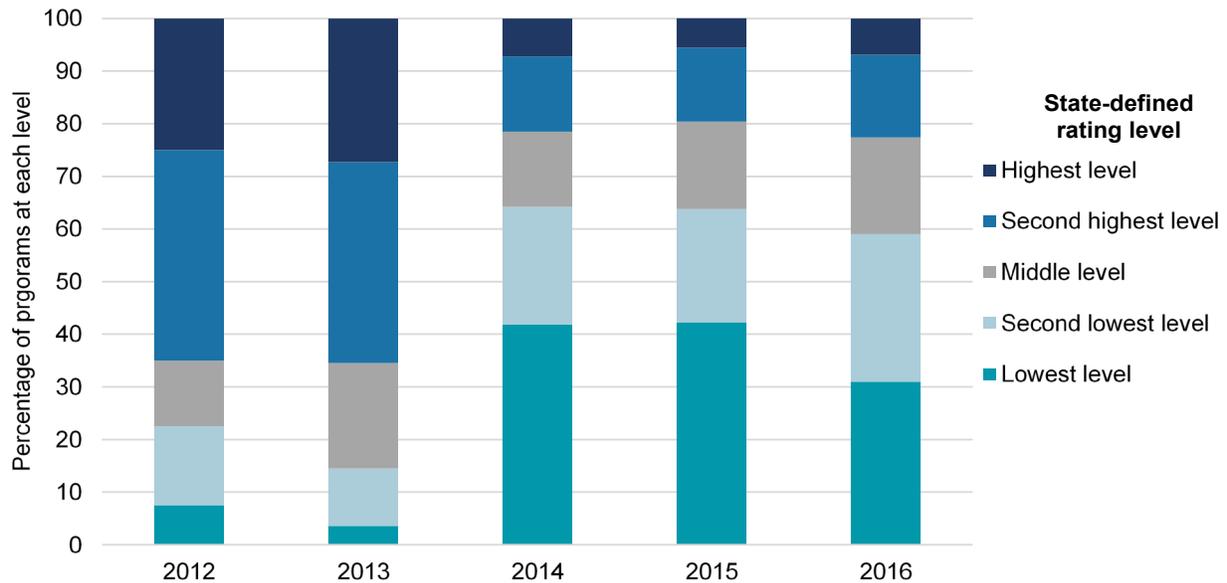
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 1,128 in 2014 to 1,722 in 2016. Analysis included only programs in Ohio that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Of the programs that participated in TQRIS in 2014 in Ohio, 11 percent were at the state-defined lowest level, 9 percent were at the second lowest level, 38 percent were at the middle level, 29 percent were at the second-highest level, and 13 percent were at the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.9. Distribution of programs' ratings in Rhode Island, 2012–2016



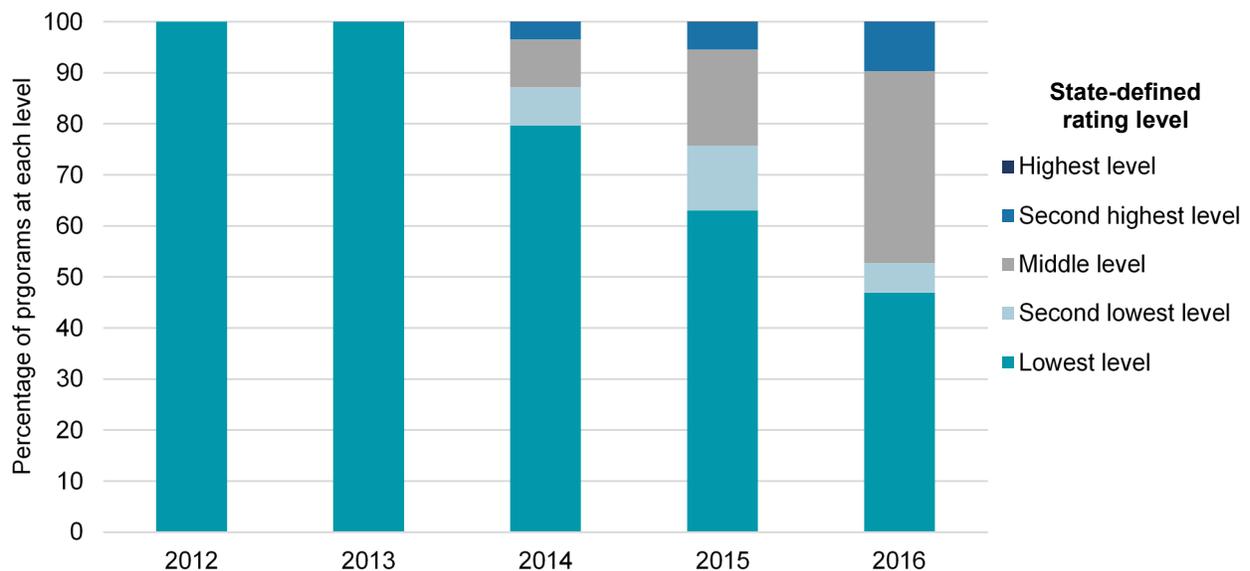
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 40 in 2012 to 265 in 2015. The total number was 261 in 2016. Analysis included only programs in Rhode Island that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Of the programs that participated in TQRIS in 2012 in Rhode Island, 8 percent were at the state-defined lowest level, 15 percent were at the second lowest level, 13 percent were at the middle level, 40 percent were at the second-highest level, and 25 percent were at the highest level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.10. Distribution of programs' ratings in Washington, 2012–2016



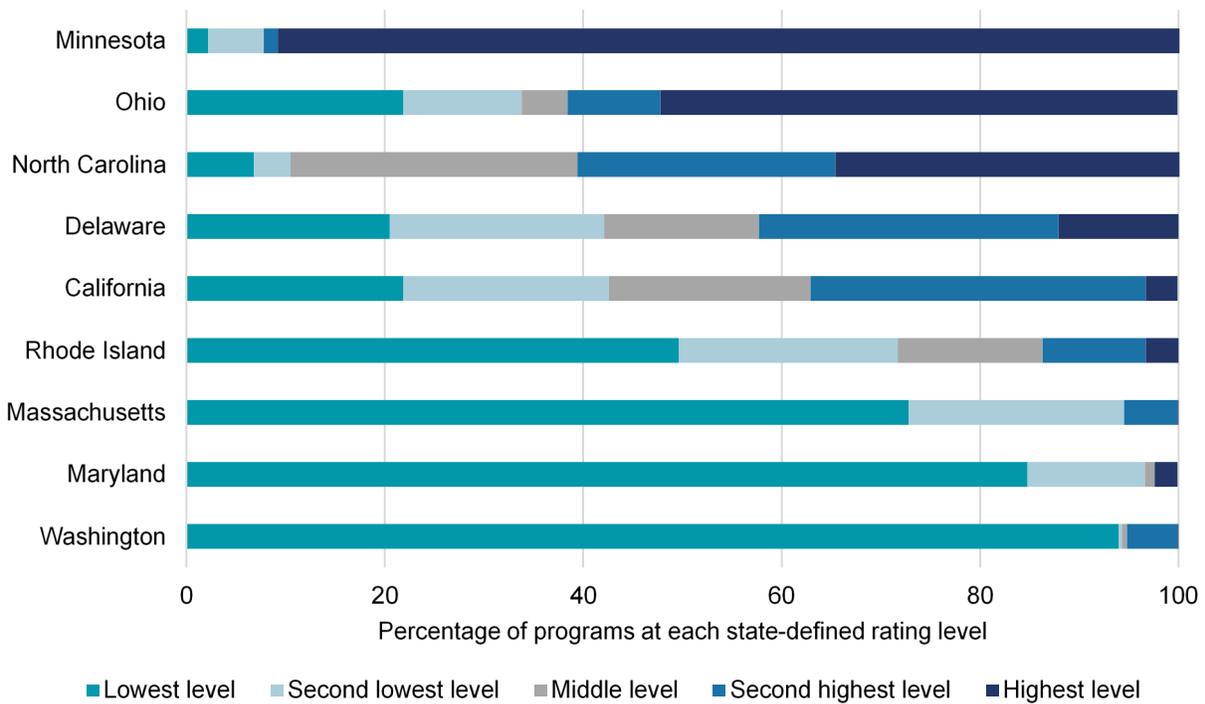
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs ranged from 320 in 2012 to 1,035 in 2016. Analysis included only programs in Washington that were rated. Ratings were measured at TQRIS entry and in June of each following year.

Figure reads: Of the programs that participated in TQRIS in 2012 in Washington, 100 percent were at the state-defined lowest level.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.11. Distribution of program ratings at TQRIS entry from 2012–2016, by state



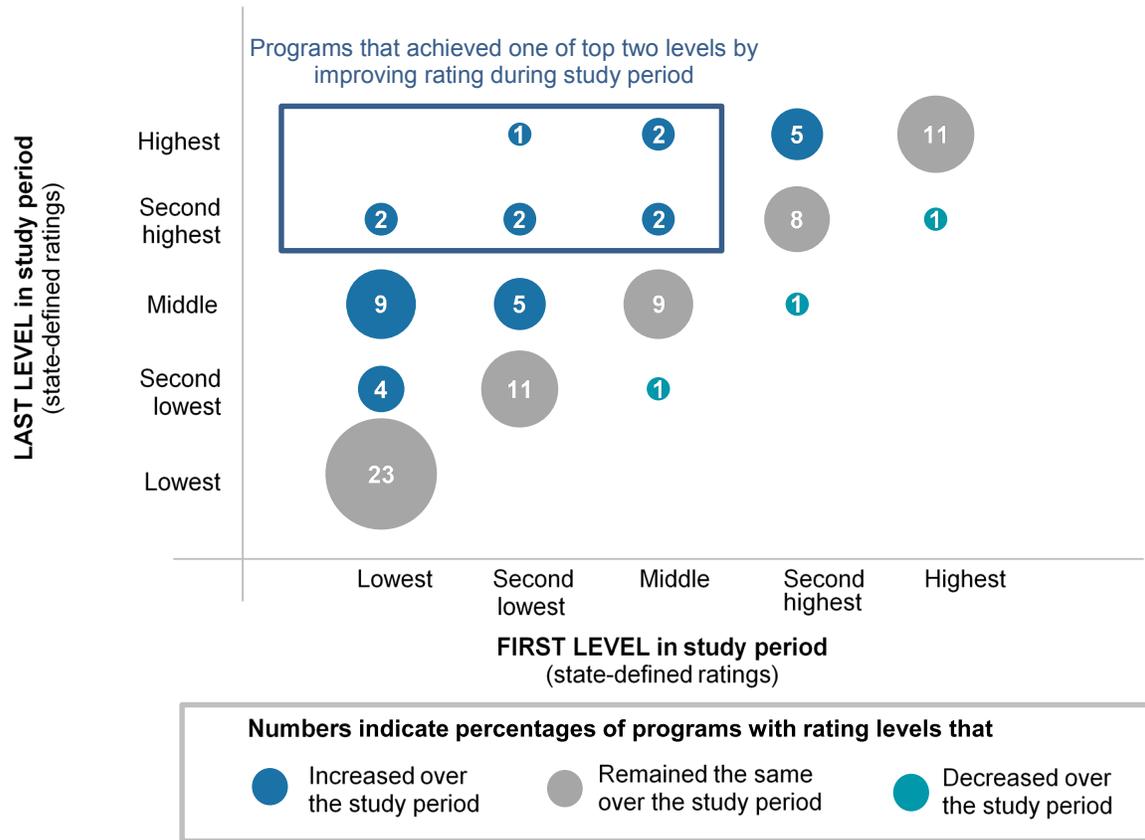
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Note: The total number of programs was 9,658. Analysis included only programs that entered between 2012 and 2016. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. The figure omits California and Ohio before 2014. Data were not available from California before 2014. Due to significant system changes in Ohio in late 2013, the analysis included only data from 2014 to 2016.

Figure reads: In Minnesota, the percentages of programs that entered TQRIS at each state-defined rating level were 2 percent for the lowest level, 6 percent for the second lowest level, 1 percent for the second-highest level, and 91 percent for the highest level.

RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.12. Changes in state-defined ratings over the study period, licensed centers that did not receive subsidies, 2012–2016



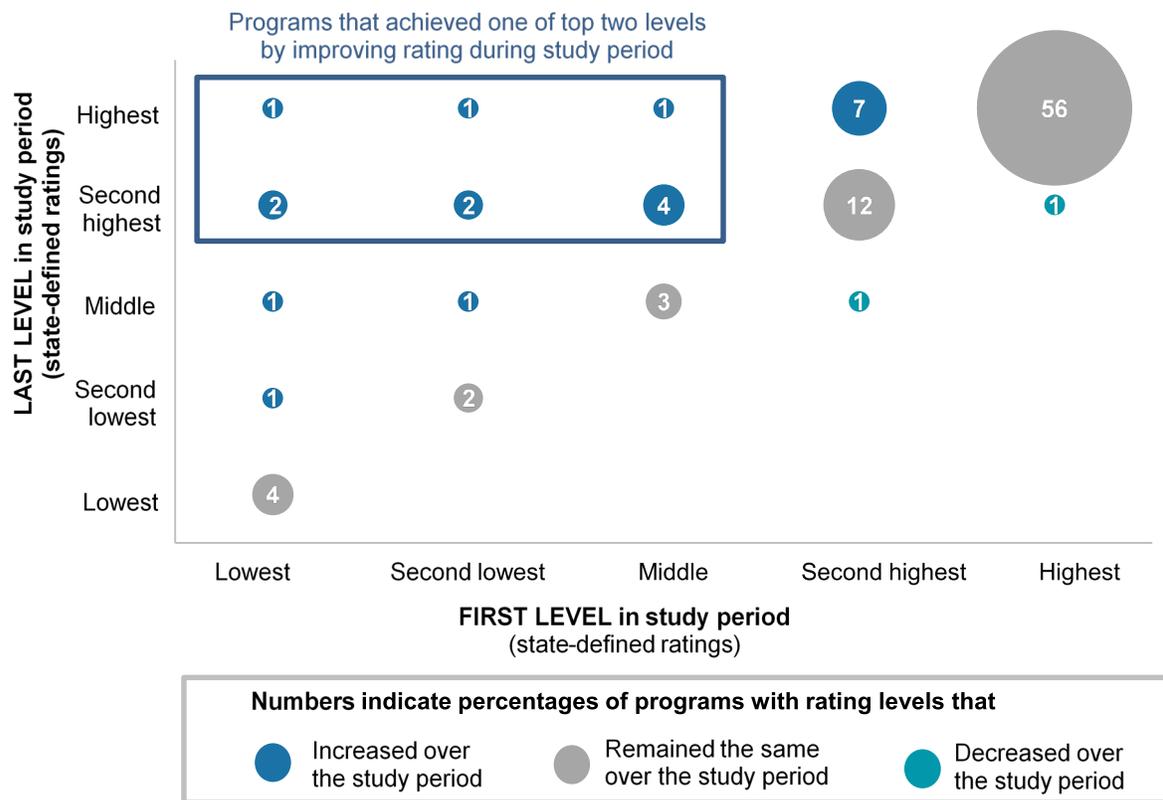
Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Notes: The total number of programs was 2,127. Figure includes all licensed centers that did not receive subsidies that participated in TQRIS in the nine states for any period from 2012 through 2016 (except those that entered in 2016) and examines the change in ratings from the first observed rating in the analysis period to the last observed rating in the analysis period. Rating level changes are reported for the full period of 2012 to 2016 for seven states, and 2014 to 2016 for California and Ohio. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level.

Figure reads: Twenty-three percent of licensed centers that did not receive subsidies were first observed at the lowest rating level and remained at that rating for the entire study period.

RTT-ELC = Race to the Top—Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

Figure B.13. Changes in state-defined ratings over the study period, state-funded pre-K programs, 2012–2016



Source: Administrative data collected from Round 1 RTT-ELC states from October 2016 to April 2017.

Notes: The total number of programs was 3,609. Figure includes all state-funded pre-K programs that participated in TQRIS in the nine states for any period from 2012 through 2016 (except those that entered in 2016) and examines the change in ratings from the first observed rating in the analysis period to the last observed rating in the analysis period. Rating level changes are reported for the full period of 2012 to 2016 for seven states, and 2014 to 2016 for California and Ohio. California data are from 16 counties that implemented TQRIS beginning in 2012; all other data are statewide. Rating categories reflect the order of ratings within states' rating structure, and treat states with four levels (Massachusetts and Minnesota) as having no middle level.

Figure reads: Four percent of state-funded pre-K programs were first observed at the lowest rating level and remained at that rating for the entire study period.

pre-K = prekindergarten; RTT-ELC = Race to the Top–Early Learning Challenge; TQRIS = tiered quality rating and improvement systems.

For more information on the full study, please visit:

https://ies.ed.gov/ncee/projects/evaluation/other_racetotop.asp



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