



December 2019

Early Achievers Evaluation Report One: *Background and Research Design*

The 2015 Washington State Legislature passed the Early Start Act, which made participation in the state’s quality rating and improvement system (QRIS), Early Achievers, mandatory for all early care and education programs serving non-school age children and receiving state funds.

In the Early Start Act of 2015, the legislature also directed the Washington State Institute for Public Policy (WSIPP) to evaluate the relationship between Early Achievers quality ratings and longitudinal outcomes for children who participate in subsidized child care and early education.¹ WSIPP is required to produce reports for the legislature in December 2019, 2020, 2021, and 2022. The final report is to include a benefit-cost analysis.

This first report addresses the background and planned methods for WSIPP’s Early Achievers evaluation report series. Specifically, in this report we review national evidence on QRIS and QRIS child outcome evaluations, describe Early Achievers implementation, provide facility- and child-level ratings information that guides our research design, and outline WSIPP’s planned outcome evaluation research design.

Summary

The 2015 Washington State Legislature passed the Early Start Act, which required all licensed child care facilities and early learning programs receiving state funds to participate in Early Achievers, the state’s quality rating and improvement system (QRIS).

The Washington State Institute for Public Policy was directed to evaluate the impact of Early Achievers on long-term child outcomes and to produce a corresponding benefit-cost analysis.

In this first report, we describe the implementation of Early Achievers, present summary ratings information that guides our evaluation, outline our planned research questions and design, and address limitations.

Accordingly, we place Early Achievers in the context of the national literature regarding child care and early learning QRIS and review previous QRIS child outcome evaluations. Overall, the evidence to date suggests limited and inconsistent relationships between quality rating levels and outcomes for children over time. However, conclusions based on the existing body of evidence are limited by methodological concerns.

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¹ Second Engrossed Second Substitute House Bill 1491, Chapter 7, Laws of 2015.

Section I provides an introduction to WSIPP's assignment to evaluate Early Achievers and an overview of our planned report series. Sections II and III describe the national context of QRIS and summarize a literature review of national evidence on the relationship between QRIS ratings and child outcomes. Sections IV and V comprise information on the implementation of the Early Achievers QRIS in Washington State and a summary of ratings to date. Sections VI and VII discuss WSIPP's research design and limitations of the evaluation.

Legislative Assignment

The Washington state institute for public policy shall conduct a longitudinal analysis examining relationships between the early achievers program quality ratings levels and outcomes for children participating in subsidized early care and education programs. (b) The institute shall submit the first report to the appropriate committees of the legislature and the early learning advisory council by December 31, 2019. The institute shall submit subsequent reports annually to the appropriate committees of the legislature and the early learning advisory council by December 31st, with the final report due December 31, 2022. The final report shall include a cost-benefit analysis.

2E2SHB 1491, Early Start Act of 2015

I. Introduction

The Early Start Act of 2015 (ESA) directed WSIPP to produce an evaluation of Early Achievers that addresses the relationship of quality ratings to child outcomes. The legislation specifies that WSIPP should assess children’s outcomes over time in a longitudinal study. Additionally, the assignment specifies that WSIPP should assess outcomes for “children participating in subsidized early care and education programs.” In [Exhibits 1 and 2](#) we describe subsidized child care and early learning programs available to low-income children in Washington State and encompassed under this direction. Finally, the legislature directed WSIPP to include a benefit-cost analysis in the final report.

Research Questions

The central task of this evaluation is to estimate the impacts of the Early Achievers QRIS on child outcomes. We frame this task in terms of the following three research questions, moving from broad to specific levels of estimation:

- 1) Does facility participation in the QRIS process impact child outcomes?
- 2) Do differences in quality captured by QRIS ratings predict child outcomes?
- 3) Which QRIS subcomponents (if any) best predict child outcomes?

At each level, WSIPP will utilize quasi-experimental research methods to assess QRIS impacts, on average, for the outcomes of children participating in ECEAP and in subsidized child care settings. As appropriate, we will also investigate variation in the impact of Early Achievers across groups of children. These research questions and corresponding methods are described in greater detail in [Section IV](#) of this report.

Exhibit 1

Child Care and Early Learning for Children from Low-Income Families in Washington

State Child Care Subsidy Programs

State child care subsidy in Washington is provided for infants through school-age children through the *Working Connections Child Care (WCCC)* and *Seasonal Child Care (SCC)* programs. In both programs, families are responsible for identifying and enrolling in a licensed or certified child care center or family child care home that accepts state subsidy payments.[#] These child care providers serve children with subsidies and children from families using private payment sources.

- WCCC subsidies are available to families with income at or below 200% of the federal poverty level (FPL). To be eligible, parents must be employed or participating in work, training, or education activities. Families with child welfare system involvement or experiencing homelessness may be eligible for a time-limited period.*
- SCC subsidies are available to families seasonally employed in agricultural work who live in designated counties and are not receiving TANF benefits.[^]

In state fiscal year 2018, WCCC served approximately 29,900 families (including approximately 51,600 children) per month, on average. Enrollment in WCCC is capped at 33,000 family households, and a wait list is employed when enrollment exceeds that number. Together, WCCC and SCC programs served approximately 125,900 unique clients in fiscal year 2018.^{^^}

Notes:

[#] Families may also use subsidies for unlicensed child care, commonly referred to as family, friend, or neighbor (FFN) care.

*Eligibility information for WCCC from DCYF *Working Connections Child Care* and from the Economic Services Administration (ESA) Briefing Book. (State Fiscal Year 2018). *Wait list information*. Homeless child care subsidy supports were incorporated in WCCC in July 2017, replacing a separate Homeless Child Care Program. Children in families with child welfare system involvement were made eligible for the WCCC program in December 2018 (ESA Briefing Book, 2018).

[^] Eligibility information for SCC from DCYF *Seasonal Child Care*.

^{^^} Economic Services Administration Briefing Book. (State Fiscal Year 2018).

Exhibit 2

Child Care and Early Learning for Children from Low-Income Families in Washington

Early Learning Programs

Washington State's *Early Childhood Education and Assistance Program (ECEAP)* is a pre-kindergarten program available to 3- and 4-year-old children from families at or below 110% of the FPL, or on an Individualized Education Program for special education.^a Washington State funds ECEAP services in a range of settings, including public schools and licensed or certified center-based and family home child care sites. In the 2018-2019 academic year, ECEAP served approximately 13,500 children across 373 sites.^b In accord with the Early Start Act of 2015, the Department of Children, Youth, and Families (DCYF) is expanding ECEAP slots to make services available for all eligible children by Fall 2022.^c Most ECEAP slots are for part-day programs, but some sites offer full-day and/or extended-day programs.

Head Start is a federally-funded pre-kindergarten program for 3- and 4-year-old children from families at or below 130% of the FPL.^d In the 2018-2019 academic year, Head Start served approximately 9,400 children across Washington State.^e The majority of these children were served in part-day, center-based programs.^f

DCYF estimates that in 2018-2019 approximately 55% of eligible 3- and 4-year olds in Washington were being served by either ECEAP or Head Start programs. Although some sites provide either ECEAP or Head Start services exclusively, other sites offer a combination of state-funded ECEAP services and federally-funded Head Start services.^g

Early Head Start (EHS) is a federally-funded program for children (birth to three-year-old) from families at or below 130% of the FPL.^h EHS integrates early learning supports with comprehensive family support services. Children may attend a child care center or may be served in a home-based program. In addition to traditional EHS sites, starting in January 2015, WA State briefly participated in an Early Head Start-Child Care partnership pilot, which provided a layered federal and state funding model to integrate comprehensive EHS family support services into a small number of traditional licensed or certified child care settings.ⁱ

Notes:

^a Some children with developmental or environmental risk factors may also attend ECEAP, regardless of family income. DCYF. [ECEAP and Head Start](#).

^b ESA. (2018). *Annual Report*.

^c ESA. (2018). *Annual Report*. Based on November 2018 Caseload Forecast Council estimates, DCYF will need to add approximately 5,900 additional ECEAP slots by fall 2022 to meet this goal.

^d Children from families over the income limit may be accepted based on developmental or environmental risk factors. DCYF. [ECEAP and Head Start](#).

^e Based on saturation data disaggregated to provide slot counts separately for ECEAP and Head Start, provided by J. Kilmer, DCYF (personal communication, February 8, 2019).

^f Based on ACF data download for 2018-19, Early Childhood Learning & Knowledge Center. [Program Information Report \(PIR\)](#).

^g DCYF (2018) [ECEAP and Head Start Saturation Study](#).

^h Children from families over the income limit may be accepted based on developmental or environmental risk factors. DCYF. [ECEAP and Head Start](#).

ⁱ Administration for Children & Families. Early Childhood Development. [Early Head Start – Child Care Partnerships](#).

Early Achievers Evaluation Report Series

The Early Start Act of 2015 directed WSIPP to produce a series of four reports on the Early Achievers evaluation. This report is the first in this series. The assignment specified that the final report, due in December 2022, must include a benefit-cost analysis.

WSIPP’s plan for the Early Achievers report series was based on several considerations, including the timeframe of Early Achievers implementation, the roll-out of the Washington Kindergarten Inventory of Developing Skills (WaKIDS) (a key outcome measure), and the timeline for availability of mature child outcomes data for later

academic years. See [Exhibit 3](#) for an outline of the planned report series.

Report two, due in December 2020, will focus on the impact of Early Achievers in the pre-k year on outcomes in kindergarten. For report three, due in December 2021, when third-grade assessment data will not yet be fully mature, we plan to conduct in-depth analyses on topics of special interest to the extent possible given the data. This third report will also allow WSIPP to be responsive to questions that may emerge from the second report or other sources. Report four, due in December 2022, will focus on the impact of Early Achievers in the pre-k year on outcomes through third grade.

Exhibit 3

Early Achievers Evaluation Report Series Plan

| Report one: Dec 2019 | Report two: Dec 2020 | Report three: Dec 2021 | Report four: Dec 2022 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background and research design | Pre-k impact on kindergarten outcomes | Special topics* | Pre-k impact on 3rd grade outcomes; Benefit-cost analysis |
| Describe Early Achievers implementation, review national evidence on QRIS in relation to child outcomes, summarize ratings progress to date, and outline planned research design as well as limitations of this evaluation. | Impact of Early Achievers in the year prior to attending kindergarten (pre-k year) on child outcomes in kindergarten. <i>Address three guiding questions; address variation in effects.</i> | <i>Ex. Relationship of infant-early childhood quality ratings to pre-k and kindergarten outcomes.</i> <i>Ex. Within provider analysis of re-rates, renewal ratings, and child outcomes.</i> <i>Ex. Quality threshold analysis of effects on kindergarten readiness.</i> | Impact of Early Achievers in the year prior to attending kindergarten (pre-k year) on child outcomes in 3 rd grade. <i>Address three guiding questions; address variation in effects.</i> Benefit-cost analysis. |

Note:

* WSIPP has identified a range of potential special topics that could be addressed in depth in report three. For each of these questions, and any additional questions that emerge, we must first determine whether available data support valid analyses.

II. Background: Child Care and Early Learning Quality Rating and Improvement Systems

In this section, we provide a high-level overview of QRIS for child care and early learning (CC/EL) programs and summarize the national QRIS movement.

What is a CC/EL QRIS?

Modern quality rating and improvement systems, or QRIS, are broadly conceived as a structure or framework for efforts aimed at continuous improvement across multiple aspects of the CC/EL field.² QRIS are intended to increase the quality of children's CC/EL settings through a range of activities. [Exhibit 4](#) describes how quality is typically defined and measured in CC/EL settings.

Although the specific activities and goals of each QRIS vary, a common component is that CC/EL programs are rated based on a state-defined set of quality standards.³ QRIS may include an array of supports for quality improvement and professional development, as well as a range of incentive structures for participation and for recognition of high-quality care.

Quality ratings are publicized to help parents make informed choices about child care and to increase demand for quality. Over time, support for quality improvement coupled with increased demand for high quality are expected to shift the market toward higher-quality care, in turn impacting children and families.

Theories of change for individual QRIS vary depending on goals, priorities, inputs, and activities. [Exhibit 5](#) provides an illustration of a QRIS theory of change.⁴

² Zaslow, M., & Tout, K. (2014). *Reviewing and clarifying goals, outcomes, and levels of implementation: Toward the next generation of Quality Rating and Improvement Systems (QRIS)*. OPRE Research Brief #2014-75. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

³ Most QRIS are implemented at the state level, but in several states are implemented by counties or districts.

⁴ Zellman, G., & Perlman, M. (2008). *Child-care quality rating and improvement systems in five pioneer states: Implementation issues and lessons learned*. Rand Corporation; and Soderberg, J., Joseph, G., Stull, S., & Hassairi, N. (2016). *Early Achievers Standards Validation Study*. Washington State, Department of Early Learning.

National CC/EL QRIS Movement

QRIS were first implemented by several states in the late 1990s with the goal of improving what was generally recognized to be low-quality child care.⁵ This movement was driven in part by mounting evidence linking high-quality care to a range of positive outcomes for children, including cognitive and language skills as well as social and emotional development.⁶

At the same time, scientists, advocates, and policymakers increased their attention to infancy and early childhood as a sensitive period of development. This attention emphasized the early years as a period during which CC/EL environments may have long-lasting consequences for development, and spurred public investments in CC/EL and in QRIS.⁷

To expand access to high-quality programs, particularly for children from low-income families, the U.S. Department of Education awarded Race to the Top – Early Learning Challenge (RTT-ELC) grants to states in 2012 through 2014.⁸ Grants were intended in part to support capacity for states to develop and implement QRIS. Accordingly, QRIS have proliferated and evolved. As of 2017, 45 states and the District of Columbia were either implementing or piloting a QRIS.⁹

⁵ Shilder, D., Iruka, I., Dichter, H., & Mathias, D. (2015). *Quality rating and improvement systems: Stakeholder theories of change and models of practice*. Build Initiative.

⁶ Vandell, D.L., & Wolfe, B. (2000). *Child care quality. Does it matter and does it need to be improved?* Madison, WI: Institute for Research on Poverty, University of Wisconsin, Madison.

⁷ National Research Council and Institute of Medicine (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

⁸ Washington received RTT-ELC funding from 2012 through 2015. QRIS expansion was a key component of the state's RTT-ELC grant application.

⁹ This count is based on WSIPP's review of the [Build Initiative's Quality Compendium](#). Build Initiative states that "the data available through [their] website was self-reported by staff representatives within each state and locality. The data are current as of November 30, 2017."

Exhibit 4

What is Quality, and how is it Measured?

Common definitions of quality

Program standards for high-quality child care and early learning (CC/EL) encompass detailed expectations for children’s positive relationships, effective use of curriculum and teaching, safe and engaging age-appropriate physical environments and activities, connection to families and communities, on-going assessment and communication about children’s development, health and safety, staff preparation and professional development, and program leadership.

High-quality CC/EL is widely considered to require warm, sensitive, and stimulating interactions between caregivers and children, coupled with effective, age-appropriate use of curricula and instructional support for learning. These features of CC/EL quality, referred to as “process quality,” reflect children’s direct experiences.

Quality is also defined in terms of “structural” features, including lower caregiver-child ratios, smaller group sizes, higher levels of caregiver education and professional development, curriculum use, site leadership and administration, and parental involvement. Features of structural quality may enhance caregivers’ interactions with children and the classroom environment, that is, some features of structural quality may support process quality.

Measuring quality

Process quality (caregiver-child interactions and instruction) is typically measured using observational assessment tools. These tools include global quality assessments that incorporate other elements of quality (e.g., health or safety indicators and play materials), as well as assessments that target specific domains of interaction (e.g., caregivers’ use of instructional supports). Examples include the following tools:

- The *Environment Rating Scales (ERS)* are widely used and validated global quality assessments, with versions available for infant-toddler and early childhood classrooms and for family child care homes. Domains depend on ERS version but may include physical space and furnishings, personal care routines, language, activities, interactions, program structure, and parent and staff needs. Observers rate individual items for each domain and calculate domain-specific scores and a global score.
- The *Classroom Assessment Scoring System (CLASS)* is a widely-used and validated assessment of teacher-child interactional quality. Assessments are available for infant, toddler, and pre-kindergarten classes. Observers score interactions specific to emotional and behavioral support, instructional support, and classroom organization domains, and calculate domain-specific scores.

Structural quality is typically measured using program documentation collected through program self-report or through external review of program records.

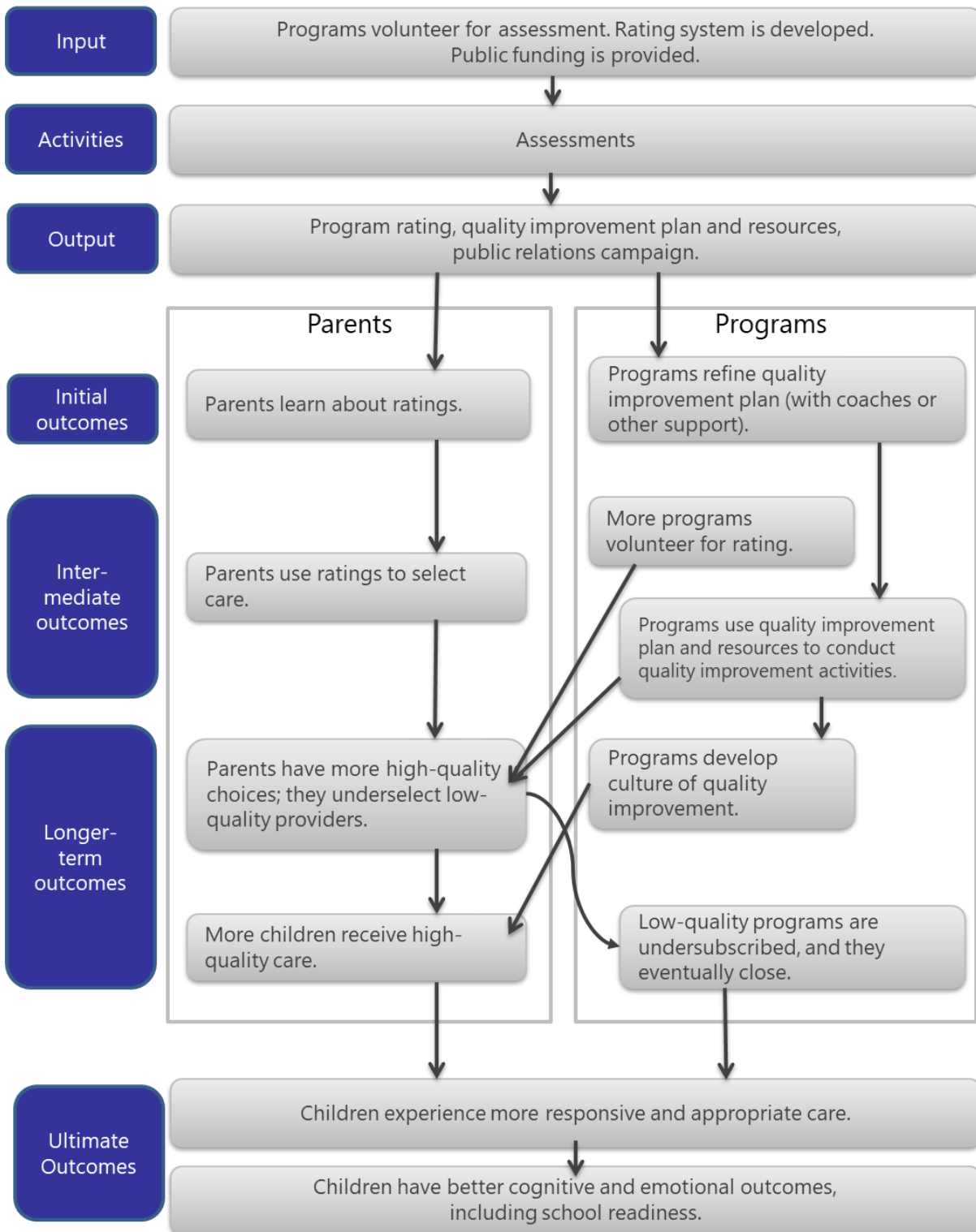
Measurement considerations for observational assessment tools

Observational assessments are conducted by data collectors who are trained and certified as reliable. However, reliability is typically established within a range, rather than reaching 100%. This creates variability in quality scores, even among certified raters. Additionally, items on observational scales may effectively differentiate low and high quality but not adequately differentiate quality within the mid-range.

Notes:

Sources include Burchinal, M. (2018). Measuring early care and education quality. *Child Development Perspectives*, 12, 3-9; National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8: A position statement of the National Association for the Education of Young Children*. Washington, DC: Author; Phillips, D.A., Lipsey, M.W., Dodge, K.A., Haskins, R., Bassok, D., & Burchinal, M.R., . . . Weiland, C. (2017). *Puzzling it out: The current state of scientific knowledge on pre-kindergarten effects*. Brookings.; and Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M.R., Espinosa, L M., Gormley, W.T., . . . Zaslow, M.J. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development.

Exhibit 5
Example of QRIS Logic Model



Note:
Adapted from Soderberg et al. (2016); Zellman & Perlman (2008).

III. Background: Evidence Linking Quality with Child Outcomes

In the following sections, we review the research linking quality with child outcomes. First, we briefly describe the current state of evidence for effects of child care/early learning (CC/EL) quality on child development. Second, we summarize findings and methodological considerations for QRIS child outcome validation studies.

Does Quality Predict Child Outcomes?

Investigation of CC/EL quality and child outcomes remains an active field of inquiry. This work has matured over the past two decades as knowledge and measurement of quality have improved, and researchers have adopted more rigorous methods.¹⁰

These changes have resulted in a nuanced picture of links between quality and child outcomes. Overall, in U.S. studies, higher process quality (caregiver-child interactions and instruction) shows modest effects on children's positive developmental outcomes.¹¹ Slightly stronger effects emerge from international studies where there may be more variability in quality. For example, a recent meta-analysis of European studies on CC/EL

process quality reported that higher scores for global and domain-specific process quality assessments predicted stronger language/literacy and mathematics skills. These effects were modest but reliable, and enduring into the primary school years.¹² On average, in addition to modest effects on language and mathematics, both U.S. and international studies have reported process quality effects on children's social and emotional development and executive control.

Structural quality features—specifically lower teacher-child ratios, smaller group sizes, higher levels of teacher education, use of in-service training, and supportive program leadership—have also demonstrated modest positive associations with children's language and math skills.

The use of evidence-based curricula, along with aligned training or coaching, is emerging as a comparatively stronger predictor of child outcomes in rigorous evaluations. Researchers have reported moderate to large effects on children's literacy and math skills, social and emotional development, and executive functioning.¹³

Although the evidence indicates only modest overall effects of traditional quality measures for children's outcomes, effects appear to be stronger under several conditions. Some studies report "threshold

¹⁰ This extensive body of research on CC/EL quality is independent of the body of research evaluating the impact of high-quality early childhood education (ECE) programs on child outcomes. CC/EL quality evaluations address the effects of variation in quality, while ECE program evaluations typically address the impact of attending (vs. not attending) a program meeting established program standards. For more information on the impact of ECE programs, see Hoagland, C., Fumia, D., & Reynolds, M. (2019). *Early childhood education for low-income students: A review of the evidence and benefit-cost analysis UPDATE* (Doc. No. 19-12-2201). Olympia: Washington State Institute for Public Policy.

¹¹ Burchinal (2018).

¹² Ulferts, H., Wolf, K.M., Anders, Y. (2019). Impact of process quality in early childhood education and care on academic outcomes: Longitudinal meta-analysis. *Child Development*, 90, 1474-1489.

¹³ Burchinal (2018).

effects,” where quality more strongly predicts child outcomes within mid- to high-range quality than within the low- to mid-range.¹⁴ Additionally, larger impacts have been reported for children from low-income families and for dual language learners.¹⁵ Lastly, extended definitions of quality, including effective use of evidence-based curricula as described above, also demonstrate stronger links between quality and child outcomes.

Do QRIS Quality Ratings Predict Child Outcomes?

Along with federal and state investments in QRIS, many states have also undertaken validation studies to examine how well quality ratings reflect meaningful differences in quality.¹⁶ These validation studies take several forms, including review of the evidence for quality standards, assessment of how quality ratings correspond with independent measures of quality, and examination of overall quality ratings as predictors of children’s development.

¹⁴ Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly*, 25, 166-176; Burchinal, M., Xue, Y., Auger, A., Tien, H., Mashburn, A., Peisner-Feinberg, E., . . . Tarullo, L. (2016). Testing for quality thresholds and features in early care and education. *Monographs of the Society for Research in Child Development*, (81)2, 46–63.

¹⁵ Dearing, E., McCartney, K., & Taylor, B.A. (2009). Does higher quality early child care promote low-income children’s math and reading achievement in middle childhood? *Child Development*, 80, 1329–1349; Fox, L., McCullough, M., Caronongan, P., & Herrmann, M. (2019). *Are ratings from tiered quality rating and improvement systems valid measures of program quality? A synthesis of validation studies from Race to the Top-Early Learning Challenge states* (NCEE 2019-4001). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

¹⁶ Receipt of RTT-ELC funding required states to conduct validation studies, and states without ELC funding have elected to conduct validation studies, as well.

Given the focus of WSIPP’s assignment, we conducted a targeted review of validation studies examining QRIS ratings as predictors of child development.¹⁷ Theories of change for QRIS typically identify children’s enhanced development, including school readiness, as an ultimate desired outcome of the system, as illustrated in Exhibit 5.¹⁸ Studies to date have tested the hypothesis that if QRIS ratings successfully differentiate quality, we might also expect attending a higher rated facility to directly predict enhanced outcomes for children.

WSIPP identified and reviewed 19 evaluations, published from 2008 through 2019, reporting on the relationship between QRIS ratings and child outcomes. We considered both methodological characteristics and research findings. Our review included an initial validation study of Washington’s QRIS that was conducted in line with RTT-ELC funding requirements.¹⁹ A complete list of evaluations reviewed by WSIPP is included in the Appendix. Across studies reviewed, we found minimal evidence of a direct relationship between QRIS ratings and enhanced outcomes for

¹⁷ Validation studies examining the evidence for quality standards, and those assessing correspondence of quality ratings to independent measures of quality, fall outside the scope of WSIPP’s assignment, and we did not review work in those areas. However, Tout and colleagues (Tout, K., Magnuson, K., Lipscomb, S., Karoly, L., Starr, R., Quick, H., . . . & Wenner, J. (2017). *Validation of the quality ratings used in Quality Rating and Improvement Systems (QRIS): A synthesis of state studies*. OPRE Report #2017-92. Washington, DC: Office of planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services) found that six of nine validation studies addressing the latter question reported significant associations between quality ratings and at least one independent quality measure, suggesting that ratings are distinguishing quality in a meaningful way.

¹⁸ Karoly, L.A. (2014). *Validation Studies for Early Learning and Care Quality Rating and Improvement Systems: A Review of the Literature*. RAND, WR-1051-DOEL; Zaslow & Tout (2014); and Zellman & Perlman (2008).

¹⁹ Soderberg et al. (2016).

children.²⁰ These findings align with two recently published reports synthesizing QRIS child outcome validation studies. Tout and colleagues (2014)²¹ reviewed seven evaluations published from 2013 through August 2017 and concluded that associations between ratings and children's outcomes were inconsistent across states and domains of child development. Similarly, Fox and colleagues (2019)²² empirically summarized eight QRIS validation studies from RTT-ELC states, concluding that on average, ratings were unrelated to differences in children's outcomes.²³ However, a range of methodological concerns limits confidence in the conclusions drawn from this body of research.

First, studies used non-experimental methods in which complex selection issues threaten validity. Briefly, these issues arise where unobserved family and child characteristics may be responsible for selection into care and also for child outcomes. For example, families with more resources may have financial access to higher quality care and family characteristics linked to those resources may also contribute directly to children's academic skills. Fifteen studies addressed this issue by

using baseline measures of development to assess growth over time, to establish initial equivalence in children's development, or to account for baseline child differences. However, selection bias from unobserved family and child characteristics may still be an issue, and most of those fifteen studies also attempted to reduce the impact of selection by statistically controlling for a combination of child, family, and site characteristics. The four studies that did not account for baseline development also did not statistically control for child, family, or site characteristics.²⁴

Second, many studies were limited by uneven representation of facilities across rating levels. Validation studies were largely conducted in the early stages of states' QRIS implementation before a full range of ratings had been issued. Additionally, nearly all studies used original data collection methods which required facility research participation. As a result, most studies recruited relatively small, volunteer samples. In addition to limited representation for the full range of quality ratings, potential differences between study samples (for both facilities and children) and intended target populations may impact study findings. Only one state used administrative data to examine selected child outcomes.

²⁰ Fox et al. (2019) states that Washington's initial child outcomes validation study (Soderberg et al. 2016) was one of only two from RTT-ELC states finding any significant positive effects on child development.

²¹ Tout, K., Chien, N., Rothenberg, L. & Li, W. (2014). *Implications of QRIS design for the distribution of program ratings and linkages between ratings and observed quality*. OPRE Research Brief #2014-33. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

²² Fox et al. (2019).

²³ Tout et al. (2017) and Fox et al. (2019) included seven of the same eight reports. Fox et al. included one additional report and included effects in their synthesis only when report authors had established baseline equivalence, thus meeting a more rigorous standard of evidence.

²⁴ This approach is considered less rigorous due in part to the potential for the impact of unobserved baseline differences in child development not accounted for by the observed child and family characteristics.

Child sample sizes were also relatively small overall, and most studies did not intentionally recruit samples of low-income or racially and ethnically diverse children. A few studies reported sub-group analyses testing the relationship between QRIS ratings and outcomes for low-income children, given the proposal that quality of care relates more strongly to outcomes for these children.²⁵ Thus, few studies have adequately tested associations of QRIS ratings and child outcomes in these target populations.

Finally, most evaluations focus on preschool-age children, with only a few studies including infants or toddlers in their child samples. Nearly all studies examined child outcomes only during preschool, relying on validated developmental assessments to define outcomes. Most studies had short follow-up periods for examining growth where relevant. Only three studies examined children's outcomes in kindergarten, and no studies reported on children's outcomes beyond kindergarten.

While the current evidence suggests that direct relationships between QRIS ratings and outcomes for children are minimal and inconsistent, further rigorous evidence is needed. Critical next steps will include addressing complex provider- and family/child-level selection concerns, focusing on children from low-income families and other target populations, investigating the impact of QRIS for infants and toddlers in CC\EL, and extending follow-up periods into the elementary school years.

²⁵ See Dearing et al. (2009) and Fox et al. (2019).

IV. Background: Implementation of Early Achievers

In this section, we describe the implementation of Washington State's QRIS, Early Achievers. We provide detail on the Early Achievers process and rating components, and highlight changes to Early Achievers over time where relevant to WSIPP's evaluation. Lastly, we briefly compare Early Achievers with QRIS in other states.

Early Achievers Implementation and Participation Requirements

Early Achievers is implemented by the Department of Children, Youth, and Families (DCYF), along with Child Care Aware of Washington (CCA), and Cultivate Learning (CL) at the University of Washington.

[Exhibit 6](#) summarizes each agency's role. According to operating guidelines,²⁶ Early Achievers was designed to support CC/EL professionals, help families find quality programs that meet their needs, and ensure that children have high-quality experiences.

The initial roll-out of Early Achievers was staggered by region from July 2012 through July 2013.²⁷ Participation during the first three years of Early Achievers was voluntary.

In July 2015, passage of the Early Start Act made participation in Early Achievers a requirement for facilities that serve non-school age children with state funding. This requirement included the following groups:

- Licensed or certified child care centers and family home child care sites that receive subsidy payments through Working Connections Child Care (WCCC) or Seasonal Child Care (SCC)²⁸ and
- Sites offering ECEAP services.

In this report, we will refer to these groups as "subsidy sites" and "ECEAP sites," respectively. However, we note that under Washington's mixed CC/EL delivery system there is overlap between the two groups and that many of these sites provide additional services.

²⁷ In 2009-2011 the Department of Early Learning and Thrive by Five Washington enacted a QRIS pilot project, Seeds to Success, in several locations in Washington. This pilot informed the design and implementation of Early Achievers. See Boller, K., Del Grosso, P., Blair, R., Jolly, Y., Fortson, K., Paulsell, . . . Kovac, M. (2010). *The seeds to success modified field test: Findings from the impact and implementation studies*. Mathematica Policy Research, Report #06298.166 and Boller, K., Paulsell, D., Del Grosso, P. Blair, R., Lundquist, E., Kassow, D.Z., . . . Raikes, A. (2015). Impacts of a child care quality rating and improvement system on child care quality. *Early Childhood Research Quarterly*, 30, 306-315.

²⁸ Programs receiving subsidy payments through the Homeless Child Care Program (HCCP) were also required to participate. The HCCP was retired in July 2017 with the integration of these services into the WCCC program.

²⁶ [Early Achievers Participant Operating Guidelines](#), September 2017.

Exhibit 6

Who Implements Early Achievers?

Department of Children, Youth, and Families

The *Department of Children, Youth, and Families (DCYF)* administers Early Achievers and is the lead agency for development and continuous improvement of the Early Achievers system and policies and integration of Early Achievers with the broader child care and early learning field. Early Achievers is a cornerstone in meeting DCYF's goals of increasing children's school readiness and closing racial and family income disparities in both access to quality child care and school readiness.^a

Child Care Aware of Washington

Child Care Aware (CCA) of Washington is the lead agency for providing quality improvement activities. Following Early Achievers enrollment, each facility is assigned a coach through one of six regional CCA offices. Coaching services are tailored to the individual site and their stage of Early Achievers participation. Services may include technical assistance, working directly with facility directors and/or staff, connecting facilities to additional resources and training, organizing group training sessions, and collaborating with each facility to develop a quality improvement plan following initial rating.^b

Cultivate Learning at the University of Washington

Cultivate Learning (CL) at the University of Washington is the lead agency for conducting Early Achievers evaluations and assessments, and assigning quality ratings. Data collectors from CL conduct on-site evaluations. Evaluations include direct observations of each facility's learning environments and interactions between child care providers and children, and may also include a review of facility records relevant to Early Achievers quality standard areas. Data collectors must demonstrate initial and on-going reliability to conduct observations using validated assessment tools.

Notes:

Source for role descriptions is the [Early Achievers Participant Operating Guidelines](#), September 2017.

^a The Department of Early Learning (DEL) initially developed and administered the Early Achievers QRIS. DEL was incorporated into a new state agency, DCYF, in 2018.

Example statements of Early Achievers goals can be found in [2E2SHB 1491](#) (Early Start Act of 2015), and in the DEL. (2017). [Racial equity initiative data report](#).

^b ECEAP contractors are responsible for supporting quality improvement activities at their ECEAP sites. Some ECEAP contractors and licensed or certified sites providing ECEAP services contract with CCA for coaching and other quality improvement activities. K. DeBoer, DCYF (personal communication October, 21, 2019).

Early Achievers participation remained voluntary for the following groups:²⁹

- Licensed or certified child care sites that do not receive child care subsidy payments through WCCC or SCC and
- Sites offering only federally-funded Early Head Start (EHS) or Head Start services.

The Early Start Act (ESA) also set timelines for participation. All existing sites offering ECEAP services³⁰ were required to participate on the ECEAP timeline, which included enrolling within three months of ESA passage and receiving an initial rating within eight months, by March 2016. Existing subsidy sites³¹—a larger and more varied group—were required to enroll by August 2016 and to receive their first rating by December 2019 (the initial ESA timeline). [Exhibit 7](#) indicates dates by which existing sites were required to meet participation milestones, as well as other key implementation dates.

The ESA also set expectations for new ECEAP and subsidy sites' participation in Early Achievers.³² Currently, new ECEAP sites must enroll within 30 days from the start of providing ECEAP services, and must be rated within 24 months from enrollment. New subsidy sites must enroll within 30 days of receiving subsidy payment, complete Level 2 activities within 12 months of enrollment, and be rated within 30 months of enrollment.

Finally, the Early Start Act set the expectation that ECEAP and subsidy sites must achieve a quality rating at or above a specified level to continue eligibility for receipt of state funding. In addition to participation and rating requirements, Early Achievers also incorporates tiered financial incentives tied to ratings.

²⁹ Programs serving only school-age children, as well as unlicensed Family, Friends, and Neighbors care providers, are currently ineligible to participate in Early Achievers.

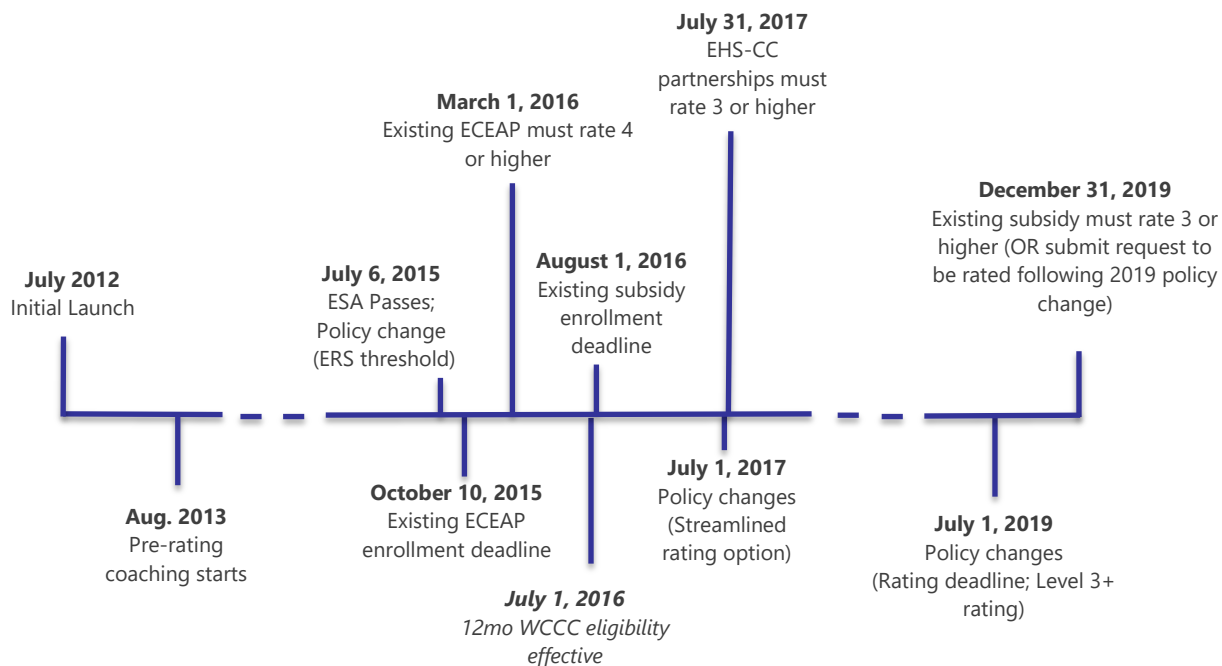
³⁰ Existing ECEAP sites are defined as a site with contracted ECEAP slots as of July 1, 2015.

³¹ Existing subsidy sites are defined by a site having received a subsidy payment between July 1, 2015, and June 30, 2016.

³² New ECEAP refers to sites that introduced contracted ECEAP slots after July 1, 2015, and new subsidy refers to sites that did not receive subsidy payment from July 1, 2015-June 30, 2016, but began receiving subsidy after June 30, 2016. Participation timelines for new ECEAP providers, outlined in the 2015 ESA, were updated by [Engrossed Second Substitute House Bill 1391](#) in 2019.

Exhibit 7

Early Achievers Implementation Timeline as of July 2019



Notes:

Existing ECEAP: The site had contracted ECEAP slots as of July 1, 2015.

Existing subsidy: The site received a subsidy payment between July 1, 2015, and June 30, 2016.

Early Achievers Process and Ratings

In the following sections, we provide a high-level overview of the Early Achievers ratings process, with a focus on points most relevant to informing research design. DCYF’s Early Achievers Operating Guidelines comprehensively describe the system.³³ Corresponding with WSIPP’s evaluation period, our focus is on Early Achievers as implemented prior to policy changes passed in 2019 legislation.³⁴ However, we also address the timing and potential implications of several 2019 policy changes for WSIPP’s evaluation.

Rating Structure, Quality Standards, and Ratings Pathways

Early Achievers quality ratings range from Level 1 to Level 5. The Early Start Act required subsidy sites to earn at least a Level 3 rating, and ECEAP sites to earn at least a Level 4 rating.

Early Achievers uses a rating structure in which all facilities must meet common foundational requirements, considered a Level 1 or 2, and can earn additional points to be rated at a Level 3 to 5.³⁵ The number of points earned determines the quality rating, as illustrated in Exhibit 8.

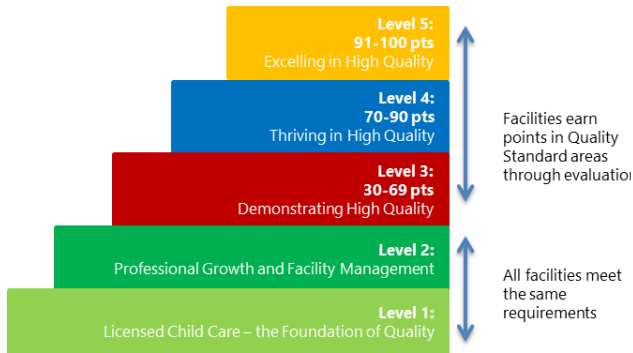
³³ Early Achievers Participant Operating Guidelines, September 2017.

³⁴ E2SHB 1391.

³⁵ This structure is commonly referred to as a hybrid structure, referring to a hybrid of the other two QRIS rating structure options: building blocks and points (Early Achievers Operating Guidelines, 2017). QRIS rating structures are described in more detail in Exhibit 12 of this report.

Exhibit 8

Overview of Early Achievers Points by Level



Note:

Source: [Early Achievers Participant Operating Guidelines](#), September 2017.

Level 1 includes licensed or certified child care facilities meeting licensing standards but not enrolled in Early Achievers. Licensed facilities that enroll in Early Achievers complete a series of initial professional development trainings and may then apply for an “Enrolled Level 2” designation.

Level 3 to 5 ratings are achieved by earning points in five quality standard areas:

- 1) Learning environment and interactions;
- 2) Child outcomes;
- 3) Curriculum and staff support;
- 4) Professional development and training; and
- 5) Family engagement and partnership.

The learning environment and interactions points are currently based on two standardized observational assessments: The Environment Rating Scale (ERS) and the Classroom Assessment Scoring System (CLASS). Both are validated and widely used assessments covering a range of classroom

quality elements.³⁶ This standard area is weighted most heavily in determining the overall Early Achievers rating, and data collectors complete these assessments for all ECEAP and subsidy sites. All sites must meet minimum threshold scores on the ERS and CLASS to rate at a Level 3, regardless of points earned in other quality standard areas.³⁷ Sites that do not meet threshold scores are classified as “Rated Level 2.”

Professional development and training points are automatically calculated through DCYF’s administrative data system. Sites choose whether to provide verification of staff education/credentials in the system.

³⁶ See Gordon, R.A., Fujimoto, K., Kaestner, R., Korenman, S., & Abner, K. (2013). An assessment of the validity of the ECERS-R with implications for assessments of child care quality and its relation to child development. *Developmental Psychology*, 49, 146–160; Gordon, R.A., Hofer, K.G., Fujimoto, K.A., Risk, N., Kaestner, R., Korenman, S. (2015). Identifying high-quality preschool programs: New evidence on the validity of the Early Childhood Environment Rating Scale–Revised (ECERS-R) in relation to school readiness goals. *Early Education and Development*, 26, 1086–1110; and Pianta, R.C., LaParo, K.M., & Hamre, B.K. (2008). *Classroom Assessment Scoring System manual: Pre-K*. Baltimore, MD: Brookes, for validation on ERS and CLASS, respectively. Data collectors with Cultivate Learning at the University of Washington undergo extensive initial and ongoing training to ensure observational assessments that meet or exceed developers’ standards for reliability.

³⁷ Each facility must earn a minimum average score of 3.0 on the ERS. According to ERS developers, a score of 3 or 4 falls in the “minimal” quality range (compared with scores of 1 or 2 in the “inadequate” range, 5 or 6 in the “good” range, and 7 in the “excellent” range; see Harms, T., Clifford, R.M., & Cryer, D. (2005). *Early Childhood Environment Rating Scale–Revised*. New York, NY: Teachers College Press. Each facility must also earn a minimum of 2.0 on the Instructional Support/Engaged Support in CLASS, and 3.5 on Emotional Support and Classroom Organization/Emotional and Behavioral Support in CLASS. Scores from 1 to 5 are considered by developers to be in the “low to medium” quality range, falling below high-quality scores of 6 to 7 (see Pianta et al. 2008).

Points in the three remaining quality standard areas are based on a review of site records and documentation. Sites can earn points for documented programmatic implementation of standards in each area. Examples of child outcomes standards include screening for developmental milestones and sharing screening information with families. Curriculum and staff supports include using a curriculum that meets developmental guidelines and providing time for staff planning and training. Family engagement and partnerships include providing resources to families in their primary language, and partnering with families to determine children's strengths and needs.

There are two rating pathways that determine which quality standard areas are evaluated under Early Achievers.

Reciprocity Pathway. Early Achievers quality standards were developed to align with performance standards for Head Start and ECEAP. Sites meeting Head Start or ECEAP performance standards receive Early Achievers "reciprocity" points for all standards in child outcomes, curriculum and staff supports, professional development and training, and family engagement and partnerships.³⁸ Reciprocity points allow these sites to enter Early Achievers with a number of points corresponding to a Level 3 rating. As a result, sites on the Reciprocity Pathway earn a Level 4 by meeting minimum thresholds for the

³⁸ In 2012-2013 DEL completed a reciprocity pilot study to inform a streamlined process for Head Start and ECEAP programs to participate in Early Achievers. The study included a representative range of approximately 180 sites serving nearly half of all children enrolled in Head Start or ECEAP. Pilot data indicated that sites were, on average, prepared to enter Early Achievers at a Level 3 or higher. Every site in the pilot study met all standards under child outcomes, curriculum and staff supports, professional development and training, and family engagement and partnerships ([Head Start/ECEAP Reciprocity Pilot Project Executive Summary](#), 2013).

ERS and CLASS and may earn a Level 5. This pathway is available to sites in which at least 75% of total slots are filled by Head Start or ECEAP students.

Licensed Pathway. Licensed child care centers and family home child care sites receiving state child care subsidies that do not qualify for the Reciprocity Pathway are on the Licensed Pathway. Following enrollment in Early Achievers, and completion of initial Level 2 activities, these sites are considered to be "Level 2 Enrolled." Sites on Licensed Pathway choose one of the following two rating options:

- *Full data collection:* Sites must be rated on learning environment and interactions and must actively choose to opt-in or out of evaluation for quality standards covered in the records review. Sites may earn a Level 5 under the full data collection option.
- *Streamlined data collection:* Sites must be rated on learning environment and interactions and *may* opt-in to evaluation on professional development and training but does not participate in records review. Streamlined data collection rules out the option of being rated on the remaining three quality standards.³⁹ The highest rating possible for sites under the streamlined option is Level 4.

Exhibit 9 summarizes quality standards under each pathway and rating option.

³⁹ The streamlined rating option was implemented in July 2017. Prior to that, all subsidy sites were evaluated using full data collection, where in addition to ERS and CLASS observations sites needed to opt-in enough other quality standards to earn the required points for a Level 3 rating. The streamlined option was made possible by weighting learning environment and interactions more heavily so that sites on the Licensed Pathway could earn a Level 3 rating by meeting the required ERS and CLASS thresholds.

Exhibit 9

Rating Pathways and Options

| Standard area | Ratings pathway/option | | |
|--------------------------------------|------------------------|----------|-------------|
| | Reciprocity | Licensed | |
| | | Full | Streamlined |
| Learning environment & interactions | Req. | Req. | Req. |
| Child outcomes | ✓ | Opt. | |
| Curriculum & staff support | ✓ | Opt. | |
| Family engagement & partnerships | ✓ | Opt. | |
| Professional development & training* | Opt. | Opt. | Opt. |
| <i>Highest possible rating</i> | 5 | 5 | 4 |

Notes:

Sources: [Early Achievers Participant Operating Guidelines](#), September 2017 and Early Achievers Policy Update (March 2017).

Req. = Required evaluation through Early Achievers.

Opt. = Sites may opt-in to evaluation.

✓ = Sites are not evaluated on the standards under Early Achievers because they are demonstrated by meeting Head Start or ECEAP performance standards.

* Professional development and training points are automatically calculated at the time of rating by DCYF through an administrative data system. Sites are not required under Early Achievers to enter staff credentials in the system. This standard area is thus considered to be optional for all sites.

Early Achievers Participation Milestones

Facilities beginning their participation in Early Achievers progress through a common set of milestones. As previously noted, the Early Start Act set requirements for participation deadlines. However, specific milestone dates are unique to each facility, and time between milestones depends on

both the facility and external factors (e.g., ESA deadlines, regional availability of coaching, and queue for on-site data collection). Early Achievers milestones for initial participation are described in [Exhibit 10](#). The initial Early Achievers rating is intended to be the beginning of a continuous improvement process. Milestones for continuing participation are described in [Exhibit 11](#).

Exhibit 10

Early Achievers Initial Participation Milestones

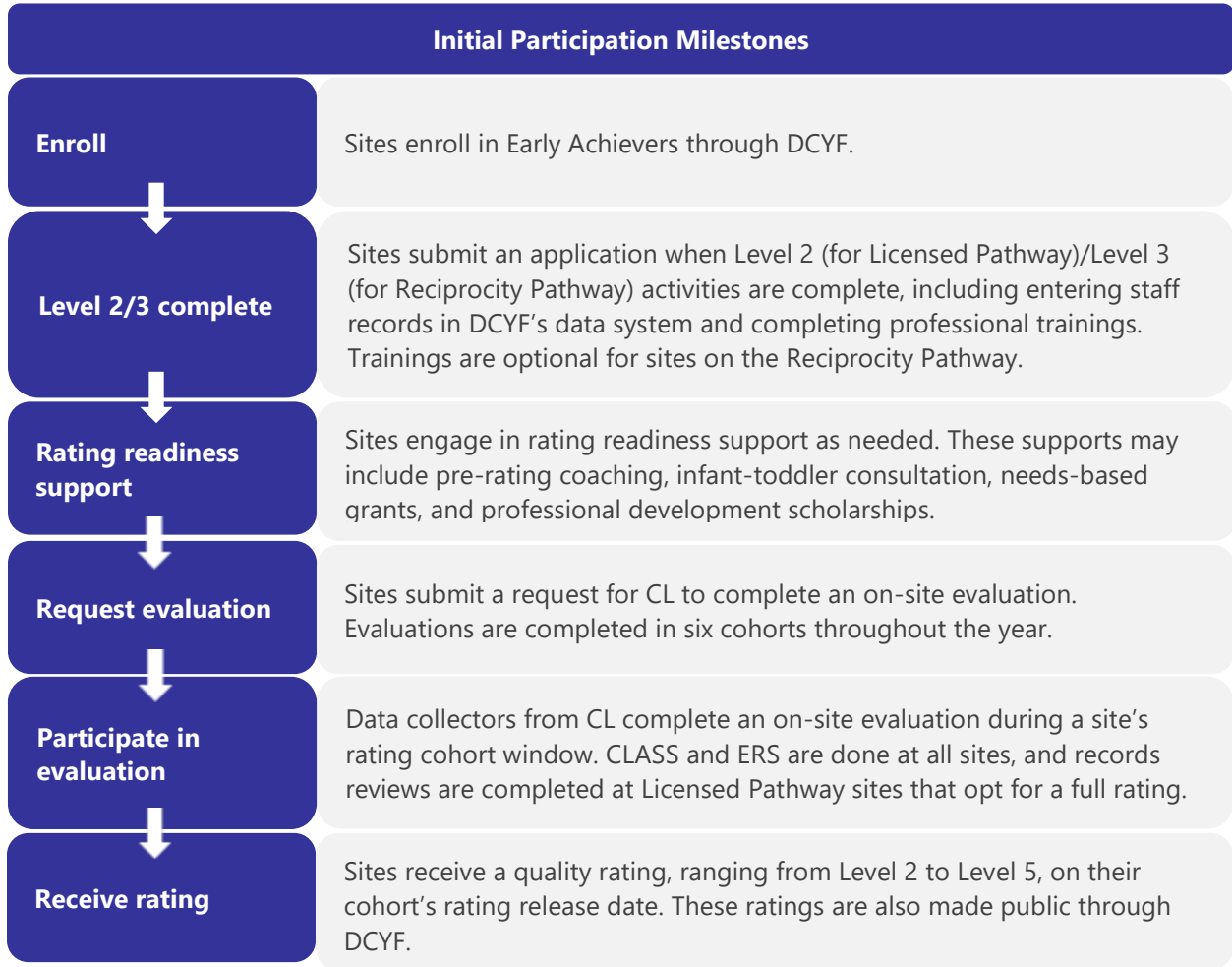
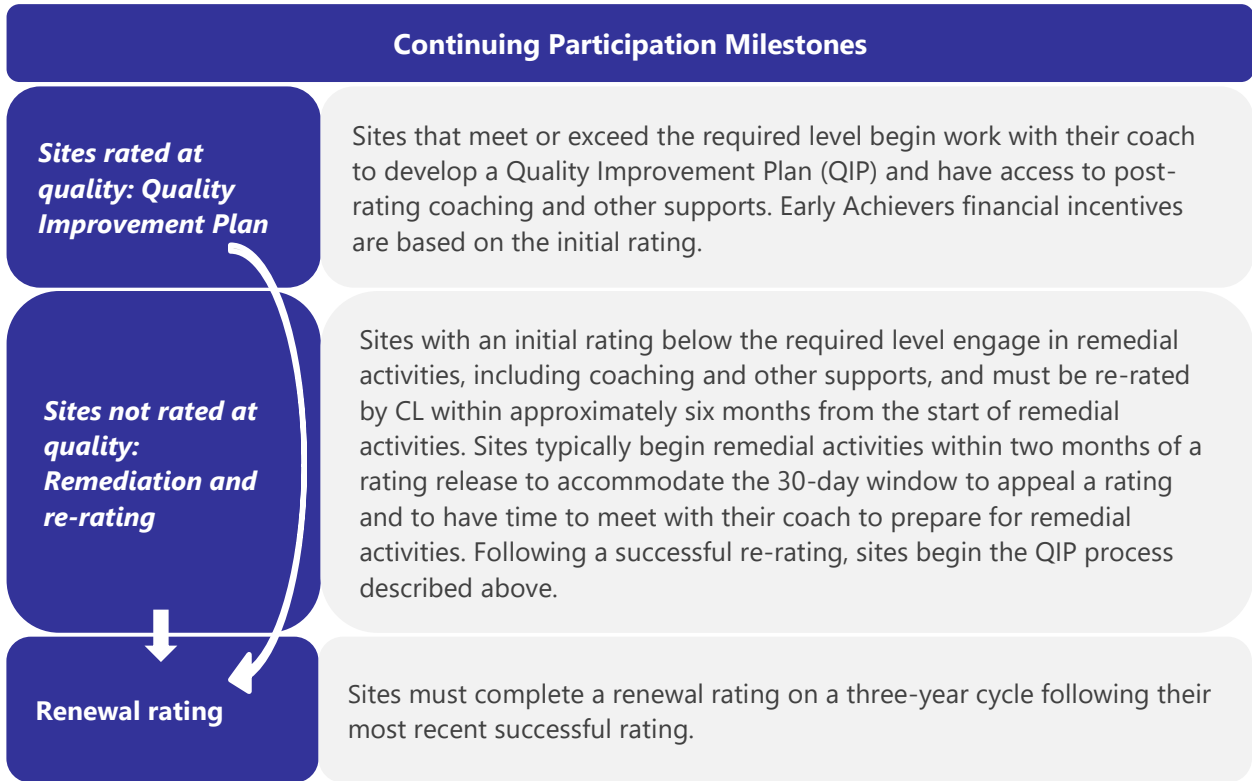


Exhibit 11

Early Achievers Continuing Participation Milestones



WSIPP's Evaluation in the Context of System Changes

The ESA established the expectation that Early Achievers would change to accommodate feedback on policy and implementation.⁴⁰ Changes to Early Achievers have been enacted in 2015, 2017, and 2019. These changes do not impact WSIPP's ability to estimate the causal impact of Early Achievers (and quality ratings more specifically) on child outcomes. However, in some cases, the changes in policy and procedures inform research design and analytic decisions. Several major changes warrant attention.

Pre-Rating Coaching

Initially, facilities were expected to make use of only minimal pre-rating coaching support. The first cohort of ratings, released in July 2013, reflects this initial expectation. The practice of offering more extensive pre-rating coaching started in August 2013. This change may impact cohorts selected for evaluation.

ERS Threshold Score

In 2015 the minimum threshold score for the ERS, one of the two observational assessments of quality, was lowered. Under this change, facilities initially rated a Level 2 solely as a result of missing the ERS threshold were automatically converted to Level 3. DCYF applied this standard retroactively, and WSIPP will have access to all relevant data.

Streamlined Rating Option

As previously described, in 2017 the streamlined rating option was introduced for sites on the Licensed Pathway. This change holds several implications. Principally, points earned through the learning environment and interactions, and to a lesser extent staff professional development, are the determinants of quality ratings that hold constant across all facilities and over time.

Level 3+ Rating

A 2019 policy change directed DCYF to introduce a Level 3+ rating to differentiate higher points within the large group of facilities initially rated a Level 3. WSIPP will have access to data that will allow us to apply the Level 3+ rating retroactively.

Subsidy Eligibility

Outside of Early Achievers, a change in federal law established a minimum 12-month eligibility period for child care subsidy, effective July 2016.⁴¹ This change lengthens the period of eligibility for WCCC, with the goal that eligible children will experience greater continuity and longer durations in subsidized child care settings.

Additional 2019 Policy Changes

Several further changes were made to Early Achievers in 2019 legislation, in addition to introducing the Level 3+ rating. Changes to ratings timelines will have an effect on the time between participation milestones and also the sample of initial ratings, re-ratings, and renewal ratings available for WSIPP's evaluation.

⁴⁰ The ESA established the Joint Select Committee on Early Achievers to review and revise legislation in response to agency and stakeholder feedback.

⁴¹ This is a change from six-month eligibility, as outlined in 45 CFR 98.21(a), as part of CCDBG re-authorization in 2014.

A change was also enacted regarding activities required for an Enrolled Level 2 status for licensed sites. Specifically, starting in July 2019, a series of six professional development trainings (Level 2 trainings) will be phased out and an optional baseline assessment using the Environmental Rating Scale (ERS) will be substituted.⁴²

Additionally, between July 2019 and June 2020, licensed facilities were given the option of requesting a baseline assessment from Cultivate Learning using a new assessment tool—the ERS-3—to inform preparation for an initial rating. The use of this baseline assessment is likely to have a limited impact on WSIPP’s evaluation given its introduction late in our evaluation period. However, later examination of relevant data will inform whether this change presents evaluation opportunities.

Finally, DCYF’s anticipated transition to using a single observational assessment tool, the ERS-3, will not impact WSIPP’s evaluation. Cultivate Learning is expected to transition to the ERS-3 in late 2020.⁴³ Ratings assigned during the 2019-2020 academic year will be the final ratings included in our evaluation, given the time required for data maturation as well as our reporting timeline.

⁴² Trainings were retired as part of the process to align licensing and Early Achievers standards. Updated licensing requirements now include a professional development and training series on enhancing quality early learning. R. Brown-Kendall, DCYF (personal communication, November 25, 2019).

⁴³ A new version of the Environment Rating Scale, the ERS-3, will replace the ERS-R and CLASS. Providers requesting ratings after April 1, 2020, will receive the ERS-3 as soon as the rating queue allows after July 1, 2020. For a period of time Cultivate Learning will conduct both ERS-R/CLASS (for providers who applied before 4/1/20) and ERS-3 (for providers who applied after 4/1/2020). J. Lee, Cultivate Learning (personal communication, November 19, 2019).

Early Achievers Compared to QRIS in Other States

In this section, we compare Early Achievers to QRIS in other states. States have taken a range of approaches to designing QRIS, and features that vary across states are relevant to rating distributions, the degree to which ratings differentiate low- and high-quality programs, and expected relationships between ratings and child outcomes.⁴⁴

In [Exhibit 12](#) we indicate selected key features for Early Achievers and summarize the range of approaches reported by other states, including QRIS participation, rating structure, observational tool(s) utilized in ratings, and incentives employed for participants. Overall, Washington’s system is comparable to those implemented in other states. However, it is worth noting that Washington is one of only 18 states in which QRIS participation is required for all or a subset of CC/EL providers. This approach aligns with the goals of RTT-ELC grant funding to ensure that QRIS reach programs serving low-income children.

⁴⁴ Burchinal et al. (2016); Fox et al. (2019); and Tout et al. (2014).

Exhibit 12

Comparing Early Achievers with QRIS in Other States

| QRIS feature | Early Achievers | Summary of QRIS in other states |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Participation | Required for licensed facilities receiving state-funds and serving non-school age children; Voluntary for all other licensed facilities. | <p>16 states report that participation is mandatory for some providers and voluntary for others. Like Early Achievers, the most common characteristic for required participation is receipt of state funds.</p> <p>2 states report all mandatory QRIS participation.</p> <p>23 states report all voluntary QRIS participation.</p> <p>All state QRIS report one of these systems.</p> |
| Rating structure | Early Achievers uses a hybrid rating structure in which all facilities are expected to meet common requirements (building blocks) to achieve a Level 1 or 2 rating and can earn additional points to achieve a Level 3 to 5 rating. | <p>17 states report using a hybrid structure, similar to Early Achievers.</p> <p>6 states report using only a point system (ratings are based on total cumulative points across quality standards assessed).</p> <p>17 states report using only a building block system (moving to a higher rating level requires facilities to meet every component of each quality standard within each level).</p> <p>All state/district QRIS report a hybrid, point, or building block system.*</p> |
| Observational tools | Early Achievers uses both the ERS-R and the CLASS observational tools. | <p>15 states report using both the ERS-R and CLASS, comparable to Early Achievers.</p> <p>27 states report using the ERS-R.</p> <p>23 states report using the CLASS.</p> <p>State QRIS report using one, none, or a combination of these observational tools.</p> |
| Incentives | Early Achievers uses improvement grants, quality awards/bonuses, tiered subsidy reimbursement, and professional development supports. | <p>12 states report using improvement grants.</p> <p>22 states report using quality awards/bonuses.</p> <p>28 states report using tiered subsidy reimbursement.</p> <p>State QRIS report using one, none, or a combination of these financial incentives. Some programs report other incentives, such as staff bonuses, or partial or full coverage of licensing fees for providers.</p> |

Notes:

Source: [Build Initiative and Child Trends \(2017\) Quality Compendium](#).

Build Initiative reports the following disclaimer: "The data available through this website was self-reported by staff representatives within each state and locality. The data are current as of November 30, 2017."

* QRIS in one state are implemented by districts, rather than as a state-wide system. This state reports two QRIS using a block structure, and one QRIS using a hybrid structure.

V. Outcome Evaluation: Facility and Child Populations

To inform our research design WSIPP is monitoring DCYF reports of site-level data on progression through the Early Achievers process, and the distribution of ratings across Levels 2 through 5.⁴⁵ In this section we highlight relevant summary data on the timing of participation and ratings. We report separately on ECEAP sites and subsidy sites because of differences in their participation timelines and requirements.

Enrollment

Early Achievers was implemented as a voluntary program starting in July 2012, prior to the ESA mandate. As a result, more than half of existing CC/EL sites were already participating at some level in Early Achievers by July 2015, when the ESA passed.⁴⁶ Passage of the ESA set enrollment deadlines for existing sites that were not yet participating in Early Achievers and nearly all existing sites enrolled by their specified enrollment deadlines. Currently, more than 95% of both ECEAP and subsidy sites are enrolled, as shown in [Exhibit 13](#). Facilities that are not yet enrolled in Early Achievers are either new facilities or are not required by law to participate.⁴⁷

⁴⁵ For initial stages of planning the Early Achievers evaluation WSIPP has relied on DEL/DCYF 2015 through 2018 Early Start Act Annual reports, as well as regularly published Early Achievers Data Dashboards.

⁴⁶ DCYF, 2015 Early Start Act Annual Report.

⁴⁷ DCYF, Early Achievers Data Dashboard, October 2019.

Exhibit 13

Point in Time Counts of Facilities Enrolled in Early Achievers

| | ECEAP N (%) | Subsidy N (%) |
|-------------|------------------------|--------------------------|
| Before ESA* | 320 (95%) | 1,963 (53%) |
| Current ** | 356 (96%) | 2,747 (98%) |

Notes:

Sources: 2015 ESA Annual Report and Oct 2019 Early Achievers data dashboard.

* Percentage based on the count of ECEAP sites existing as of July 2015.

** Percentage based on the total (existing and new) count of subsidy sites as of September 2019.

Rating Receipt

Although the majority of ECEAP sites and nearly half of all licensed or certified child care sites were enrolled in Early Achievers prior to the ESA, only 35% of ECEAP sites and 12% of licensed facilities receiving subsidy payments had received an initial rating by July 2015.⁴⁸

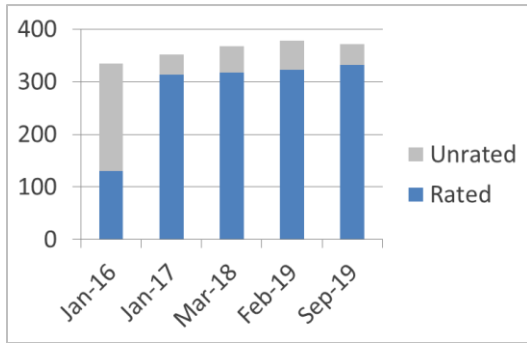
Nearly all existing ECEAP sites received an initial rating by the March 2016 deadline.⁴⁹ Unrated sites reflected in [Exhibit 14](#) after March 2016 are largely new ECEAP sites.

⁴⁸ Prior to the July 2015 ESA passage, there was limited incentive for sites to complete the rating process.

⁴⁹ An Early Achievers Data Dashboard for March 2016, corresponding directly to the required date for ECEAP sites to be rated, was not available.

Exhibit 14

Total ECEAP sites rated

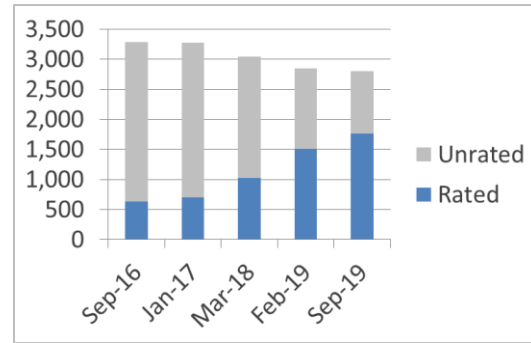


Note:

Source: DCYF EA Data Dashboards.

Exhibit 15

Total subsidy sites rated



Note:

Source: DCYF EA Data Dashboards.

Exhibit 15 depicts the relatively steady increase in rated subsidy sites, consistent with the longer timeframe mandated for meeting participation milestones. Existing subsidy sites that are not yet rated must submit a request for on-site evaluation by December 31, 2019.⁵⁰

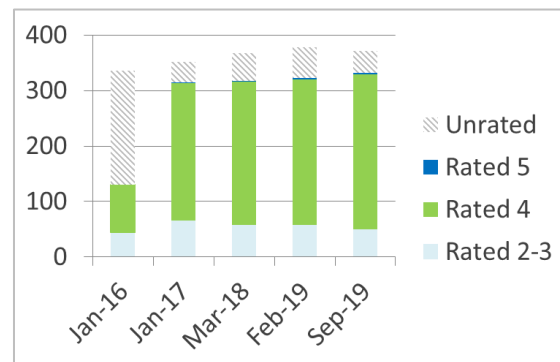
Of 1,033 unrated subsidy sites in September 2019, 278 were centers (29% of 945 total centers), and 755 were family home child care sites (FHCC) (41% of 1,855 total family home child care sites),⁵¹ reflecting both larger numbers and slower uptake by this group. The number and type of rated sites are relevant to WSIPP’s evaluation sample. However, it is worth noting that the total numbers include both new subsidy sites (not subject to the December 2019 deadline), and existing subsidy sites that have met the milestone and are in the queue for rating. As of late November 2019, only 81 existing sites (15 centers and 66 FHCC) had yet to submit the required request for an on-site evaluation.⁵²

Distribution of Ratings

As described in Section III, Early Achievers ratings can range from Level 2 to Level 5. ECEAP sites must rate at a Level 4 or higher. Shown in Exhibit 16, most ECEAP sites have rated at a Level 4. As of September 2019, there were 31 ECEAP sites rated Level 2 or 3, 244 rated Level 4, and three rated Level 5.

Exhibit 16

Distribution of ECEAP site ratings



Note:

Source: DCYF EA Data Dashboards.

⁵⁰ This policy change was introduced in E2SHB 1391, 2019.

⁵¹ DCYF, Early Achievers Data Dashboard, October 2019.

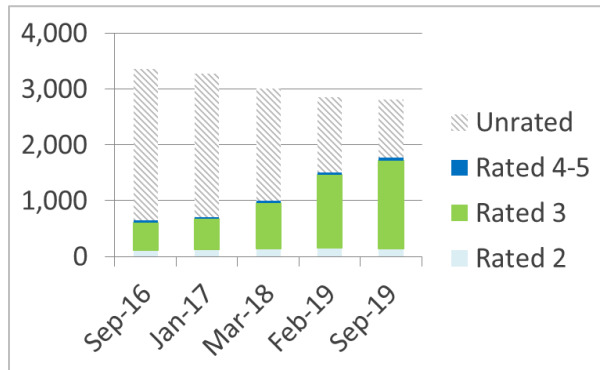
⁵² R. Brown-Kendall, DCYF (personal communication, November 25, 2019).

Subsidy sites must rate at a Level 3 or higher. [Exhibit 17](#) shows the distribution of ratings for subsidy sites, indicating that here, too, most are meeting but not exceeding the required rating. As of September 2019, there were 144 subsidy sites rated Level 2 (43 are centers and 101 are family homes), 1,572 rated Level 3 (584 are centers and 988 are family homes), and 49 rated Level 4 or 5 (38 are centers and 11 are family homes).⁵³

The ratings distribution shown in [Exhibit 17](#) does not yet reflect the recent introduction of the Level 3+ rating for facilities earning points at the upper end of the Level 3 range, as well as meeting ERS and CLASS threshold requirements.⁵⁴ This change has been enacted in DCYF's ratings data systems, and WSIPP will be able to apply Level 3+ ratings retroactively in our analyses.

Exhibit 17

Distribution of subsidy site ratings



Note:

Source: DCYF EA Data Dashboards.

⁵³ DCYF, Early Achievers Data Dashboard, October 2019.

⁵⁴ This policy change was introduced in 2019 with [E2SHB 1391](#).

Facilities Not yet Rated

As of September 2019, just over 1,000 enrolled subsidy sites had not yet received an initial Early Achievers rating.⁵⁵ This number includes both existing and new subsidy sites. Given our evaluation and reporting timeline, some of WSIPP's analyses will allow us to include sites rated through August 2020. We anticipate that this will result in including four additional ratings cohorts, or approximately 700 additional ratings.⁵⁶

Children Served by Early Achievers Sites

The child-level target population for WSIPP's Early Achievers evaluation includes 3- and 4-year old children attending ECEAP sites, and all non-school age children enrolled in state-subsidized child care.⁵⁷ WSIPP will be able to identify unique children in each setting over time for our Early Achievers reports in 2020-2022.

In **Exhibit 18** we summarize DCYF's September 2019 estimates of the number of children being served by either an ECEAP site or subsidy site rated at their respective expected quality level, or "at quality."

Exhibit 18

A Point in Time Estimates of Children Served by Sites "at Quality"

| Number of children | ECEAP^a | Subsidy^b |
|-----------------------------|--------------------------|----------------------------|
| In sites at quality | 10,966 | 34,337 |
| In sites not yet at quality | 2,572 | 15,427 |

Notes:

Source: DCYF, Early Achievers Data Dashboard, October 2019
Note: "At quality" is defined by a Level 4 rating for ECEAP sites, and a Level 3 rating for subsidy sites.

^a Estimates represent the number of ECEAP slots served by sites "at quality." WSIPP calculated the number of ECEAP slots served by sites not yet at quality from the reported 81% of slots served by sites at quality to infer the total number of slots.

^b Estimates represent the number of children eligible for subsidized child care served by sites "at quality." WSIPP calculated the number of children eligible for subsidized child care served by sites not yet at quality from the reported 69% of eligible children served by sites at quality to infer the total number of eligible children served.

⁵⁵ DCYF, Early Achievers Data Dashboard, October 2019.

⁵⁶ This is based on an estimated 150-200 sites rated per cohort. These cohorts will likely include initial ratings, re-rates, and renewal ratings. K. Sampson Child Care Aware (personal communication, November 14, 2019).

⁵⁷ Children in Head Start or EHS programs, and those attending child care sites with a private payment source, are also affected by Early Achievers. However, at this time there are not sufficient administrative records to identify these children. Additionally, WSIPP's direction is to study children served by subsidized CC/EL programs. Children in exclusively Head Start or EHS, or using private payment child care, will not be included in WSIPP's analyses.

VI. Outcome Evaluation: Planned Research Design

To evaluate the impact of Early Achievers on children’s development, we must compare outcomes for children who have differing CC/EL quality experiences but who are otherwise similar in terms of characteristics that are related to variation in outcomes.

Ideally, from a research perspective, we would test the impact of Early Achievers using a randomized controlled trial—the “gold standard” experimental approach to estimating treatment effects. Random assignment to different levels of CC/EL quality would allow for direct comparison of outcomes between groups of children because, in theory, the only difference between groups would be random and unrelated to child or family characteristics.

When participation in CC/EL at different levels of quality is not random, program evaluations can exhibit “selection bias” which occurs when individuals select, or are selected into, CC/EL quality experiences based on characteristics that may also impact their outcomes. For example, family characteristics such as neighborhood or parent education level may predict parents’ enrollment of their children in higher quality care, as well as predicting children’s outcomes. Child characteristics such as perceived or identified developmental delay may also impact selection, particularly if child need is considered for priority enrollment. These underlying characteristics, rather than CC/EL quality experiences, may be responsible for group differences in outcomes. As described in [Section III](#), concerns regarding complex selection issues diminish confidence in the conclusions drawn from many prior QRIS evaluations.

WSIPP’s evaluation of Early Achievers is retrospective, and we are unable to use a controlled trial in which we randomly assign children to differing CC/EL quality experiences. Instead, we will use quasi-experimental research designs to address selection concerns and approximate causal estimates of the impact of Early Achievers on child outcomes. We describe these planned research designs in the following sections corresponding to each of our three guiding questions.

[Question One: Does Facility Participation in the QRIS Affect Child Outcomes?](#)

One of the most important potential effects of Early Achievers is inducing providers to improve the quality of care offered to children. That quality improvement may be observed in subsequent ratings. However, by design, when sites receive a rating they typically meet the required quality rating level (at least a Level 3 for subsidy sites and at least a Level 4 for ECEAP sites). Consequently, the most important effects of Early Achievers may not be captured by rating differences among facilities. Rather, sites’ progression through Early Achievers may offer the clearest evidence of impact on child outcomes.

In particular, pre-rating coaching and other quality improvement supports, as well as post-rating coaching and quality improvement plans and supports, are all designed to raise the level of quality in CC/EL programs. We would, therefore, expect to see more positive outcomes for children attending a site during or immediately after these activities compared with children attending that same site prior to engagement in coaching and other supports. Consistent with the literature, we view coaching as the most likely mechanism for quality improvement,⁵⁸ and accordingly the period in which a site is receiving initial rating readiness supports as the most likely time to observe improved child outcomes.

Our preferred empirical strategy to estimate change over time in child outcomes corresponding to the coaching period is a two-way fixed effects model. This approach is commonly used to identify the effects of macro-level interventions in non-experimental settings.

In the fixed effects (FE) approach, a relationship between the intervention and the outcome variable is established. For this research question, we are interested in the relationship between Early Achievers coaching and child outcomes, such as kindergarten readiness. However, if we establish a relationship between the intervention and the outcome, we must still rule out the possibility of alternative explanations for the relationship before assuming that the intervention caused the outcome to change.

⁵⁸ Boller et al., (2015); Pianta, R., Hamre, B., Downer, J., Burchinal, M., Williford, A., Casale-Crouch, J. . . . Scott-Little, C. (2017). Early childhood professional development: Coaching and coursework effects on indicators of children's school readiness. *Early Education and Development*, 28, 956-975.

The basic strategy of a fixed-effects model, in this case, is to eliminate the possibilities that the relationship between intervention and outcome is actually caused by differences between sites that may explain child outcomes (such as highly skilled, motivated leadership), and/or external changes over time that may correspond to both quality improvements and child outcomes (such as economic conditions).

Our intervention variable is site-level coaching, so we will include a fixed effect for site in the model to account for all differences between sites that do not change over time. We will represent our coaching variable on an annual basis by including a fixed effect for academic year in the model. This accounts for all differences from one year to the next that are shared across sites (e.g., change in duration for child subsidy eligibility).⁵⁹

We must also account for differences between sites that change over time. For example, other features of the ESA, such as ECEAP expansion, may also influence child outcomes, competing with the effects of coaching in our models. If other possible causes of change in outcomes occur in the same sites at the same time as coaching, our understanding of the effect of coaching will be distorted. We will thus also include time-varying control variables in all models.

⁵⁹ Measurement of coaching could be represented as a smaller unit of time, such as monthly or quarterly. However, annual reporting of child outcome data constrains our models. Ultimately, we expect to model fixed effects for the academic year, and also to account for the proportion of time during an AY year that each site spent engaged in coaching.

This approach leverages site-level variation in participation milestone dates, as well as the protracted Early Achievers roll-out over time, to help to rule out alternative explanations. In other words, if we do observe change, on average, in child outcomes corresponding to the coaching period, that change is unlikely to be due to factors other than Early Achievers.

Conceptually, this is a kind of pre-Early Achievers to post-Early Achievers comparison.⁶⁰ We plan to define pre- and post-period for each site based on receipt of initial coaching. However, this research approach will allow us to be flexible in how we define the specific pre- and post-period.

Question Two: Are Higher QRIS Ratings Predictive of Better Child Outcomes?

As outlined in [Section III](#), after engaging in pre-rating quality improvement supports, sites receive an overall quality rating that can range from Level 2 to Level 5. This overall quality rating determines whether a site has met or exceeded expectations, or must engage in further quality improvement activities and re-rate at a higher level to maintain their status. Subsidy sites must achieve at least a Level 3 rating, and ECEAP sites must achieve at least a Level 4 rating.

⁶⁰ Bailey, M.J., Sun, S., & Timpe, B. (2018). Prep school for poor kids: The long-run impacts of Head Start on human capital and economic self-sufficiency. *Ann Arbor, MI: University of Michigan, Department of Economics. Rapport de recherche*; Barr, A., & Gibbs, C.R. (2018). *Breaking the cycle? Intergenerational effects of an anti-poverty program in early childhood*; Johnson, R.C., & Jackson C.K. (2017). Reducing inequality through dynamic complementarity: Evidence from Head Start and public school spending. *Northwestern Institute for Policy Research, Working Paper Series, WP-17-09*; and Thompson, O. (2018). Head Start's long-run impact: Evidence from the program's introduction. *Journal of Human Resources, 54*(4), 1100-1139.

A critical question for QRIS child outcome validations is whether attending a CC/EL program of higher quality, as captured by the overall rating, leads to more positive development over time for children compared with those attending lower-quality programs. We will employ two different empirical strategies to estimate the impact of quality, captured in Early Achievers quality ratings, on child outcomes.

Sibling Comparisons

Our preferred design to estimate the effects of quality captured by Early Achievers ratings is a sibling fixed-effects comparison design. Sibling comparison is a well-established strategy for obtaining high-quality causal estimates of program effects in the early childhood education literature.⁶¹ We will identify siblings in the same family who attended CC/EL sites at different levels of quality, either simultaneously or at different times, and limit our analysis sample to these cases.

This approach to reducing selection bias relies on the related assumptions that we would expect to see similar outcomes for siblings in the absence of differences in CC/EL quality and that selection takes place at the family level. In other words, many of the characteristics that may impact both selection into CC/EL and also child outcomes vary between families and thus will be shared by siblings in the same family.⁶² Therefore, we can be

⁶¹ Bauer, L., & Schanzenbach, D.W. (2016). *The long-term impact of the Head Start program*. The Hamilton Project, Brookings Institute; Deming, D. (2009). Early childhood intervention and life-cycle skill development: Evidence from Head Start. *American Economic Journal: Applied Economics, 1*(3), 111-134; and Garces, E., Thomas, D., & Currie, J. (2000). Longer term effects of Head Start. *NBER Working Paper 8054*.

⁶² Variability in QRIS scores among siblings could be a consequence of variability in openings across sites, changes in family eligibility, or differences between siblings. Some of these underlying mechanisms are greater concerns for introducing bias than others. These potential mechanisms underscore the importance of conducting parallel analyses for ECEAP and subsidy sites. We will only compare outcomes

confident that differences between siblings who attend CC/EL programs at different quality levels are driven by those differences in quality.

Growth in Kindergarten Readiness

In addition to the sibling comparison approach, which can be used for both ECEAP and subsidy models, developmental assessment data collected by ECEAP sites provides an opportunity to examine growth in kindergarten readiness related to Early Achievers quality ratings. ECEAP sites observe and report on children's developmental skills using a common assessment tool in the fall and spring of each academic year.⁶³ As a result, we can estimate differences in the average rate of growth in developmental skills related to quality while accounting for skill differences at entry.⁶⁴ The ECEAP assessment tool—Teaching Strategies GOLD—also maps directly onto Washington's kindergarten readiness assessment, the WaKIDS.⁶⁵ This makes it possible to estimate growth from fall to spring of the pre-kindergarten year, and also from fall of pre-kindergarten to fall of the kindergarten year, as a function of quality rating.

for siblings who both attended ECEAP, and siblings who both received care through a subsidy. We will not compare outcomes for ECEAP enrollees and subsidy enrollees. This helps to rule out systematic differences between siblings leading to differences in ECEAP eligibility (e.g., child IEP), as well as differences over time within families related to ECEAP eligibility (e.g., family income change). Within ECEAP and non-ECEAP models, we can test for and appropriately address selection where relevant.

⁶³ ECEAP performance standards require reporting developmental assessment data, and set specific dates by which fall and spring observations must be finalized.

⁶⁴ Growth models are well-established in child development research and in QRIS child outcome validation studies. Fox et al., (2019).

⁶⁵ The WaKIDS comprises a subset of items from the Teaching Strategies GOLD assessment that is used in ECEAP. See [OSP's Whole-Child Assessment](#) for additional information.

Question Three: Which Standard Areas of QRIS Ratings (if any) Best Predict Child Outcomes?

As outlined in [Section IV](#), overall quality ratings in Early Achievers are comprised of information across five standard areas: Observation of learning environment and interactions, child outcomes, curriculum and staff support, family engagement and partnerships, and staff professional development and training. Because of limited variability in the overall quality ratings, with most ECEAP facilities rated "4" and most non-ECEAP licensed facilities rated "3," those quality ratings will have limited predictive capability for variation in child outcomes. Consequently, investigating whether higher quality within each standard area predicts child outcomes, as well as which standard areas best predict child outcomes, may ultimately be more informative than analyses utilizing overall quality ratings.

To test for differential impacts of individual quality standard areas on child outcomes we will extend the two approaches described above: Sibling fixed-effects comparisons and growth in kindergarten readiness. Here, though, instead of overall quality ratings, where possible we will use information on quality within each standard area, conditioning on overall rating, to predict child outcomes. The precise form of these models will vary based on the structure of variation in each standard area. Not all comparisons will be viable given program and site-level variation in the standards evaluated during the rating process (see [Exhibit 6](#)).⁶⁶

⁶⁶ [Early Achievers Participant Operating Guidelines](#), September 2017.

Heterogeneity of Effects

In addition to addressing differences between ECEAP and subsidy sites, there are a number of additional features of CC/EL settings that warrant attention. We intend to address the possibility of differential effects of Early Achievers for center-based and family home child care, for different Child Care Aware regions, and for rural and urban programs.

For children, we will consider race/ethnicity, home language, and child disability status as potential moderators of Early Achievers impact. In addition, while we have largely discussed ECEAP and subsidy as separate programs, children may participate in both programs either consecutively or concurrently. Further, children may move between ECEAP sites, or between subsidy sites. Child care stability is of interest in its own right as a predictor of child outcomes,⁶⁷ and in the context of this evaluation we must also address children experiencing multiple settings that may differ in quality.

Data Sources and Key Variables

For all analyses, we will use administrative data drawn from numerous sources. [Exhibit 19](#) provides an overview of data required to complete this evaluation and identifies the relevant data system(s) and sources. To deliver causal estimates of the impact of Early Achievers on child outcomes, WSIPP must also address sources of site-, community-, family-, and child-level variation in children's CC/EL experiences and long-term outcomes.

This requires accurately linking site-level data files across multiple source systems and over time where no single common identifier exists, as well as integrating across site-level and child-level data files. WSIPP will conduct all site-level linking of Early Achievers data files with ECEAP and licensed facility files. WSIPP will also link site-level and child-level data to construct analytic files. The Education Research and Data Center (ERDC)⁶⁸ serves as a clearinghouse for child-level data from state administrative data systems and will match files with individuals in their P-20 data warehouse to assign unique child identifiers.

⁶⁷ Shaw, S.H., Partika, A., & Tout, K. (2019). *Child care subsidy stability literature review*. OPRE Research Brief # 2019-17. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁶⁸ For additional information on the ERDC, please see [ERDC's website](#).

Exhibit 19

Early Achievers Evaluation Source Data

| Data type | Data systems or Reports | Data source | Coverage |
|------------------------------------------------------------------------|---------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site-level data | | | |
| Early Achievers ratings and rating dates | WELS/PRISM | DCYF | All sites* receiving an initial rating, re-rating, or renewal rating in Early Achievers from Jul. 2012 - Aug. 2020. |
| Early Achievers participation milestone dates | Early Achievers Private Pay Monitoring Report; MERIT Database | DCYF CCA of WA | All participation milestone dates in monthly MERIT reports (Aug. 2012 - Mar. 2016) and monthly Early Achievers Private Pay Monitoring Reports (April 2016 - Aug. 2020). |
| Early Achievers consultation and coaching dates | CCA system; WELS | CCA of WA DCYF | Pre-rating consultation dates for all licensed facilities working with CCA; Post-rating coaching dates for all facilities in Early Achievers. |
| ECEAP site characteristics | ELMS | DCYF/ERDC | All ECEAP sites serving children from AY 2013-14 - AY 2019-20. |
| Licensed child care facility characteristics | FamLink; WA Compass | DCYF CCA of WA | All licensed child care facilities with an active license from Sept. 2009 - Aug. 2020. |
| Child-level data | | | |
| Child ECEAP eligibility and enrollments; TS-Gold assessments and dates | ELMS | DCYF/ERDC | All children enrolled in ECEAP from AY 2013-14 - AY 2019-20. |
| Child care subsidy participation | SSPS | DCYF | All children receiving child care subsidy through WCCC, SCC, or child welfare from Sept. 2009 - Aug. 2020. |
| Child health at birth; time-varying family characteristics | Birth statistical files | DOH | All live births from Sept. 2008 - Aug. 2016. |
| Child K-3 program participation and assessment data | CEDARS | OSPI/ERDC | All K-3 children from AY 2014-15 – AY 2020-21 who match an individual identified for ECEAP or child care subsidy in target years. |

Notes:

* We requested classroom-level observational data where relevant.

AY = Academic year.

WELS = Web-based Early Learning System.

DCYF = Department of Children, Youth, and Families.

CCA = Child Care Aware.

MERIT= Managed Education and Registry Information Tool.

ELMS = Early Learning Management System.

ERDC = Education Research Data Center.

SSPS = Social Service Payment System.

DOH = Department of Health.

CEDARS = Comprehensive Education Data and Research System.

OSPI = Office of the Superintendent of Public Instruction.

Primary Outcomes

The primary outcomes that we will examine in this evaluation include the Washington Kindergarten Inventory of Developing Skills (WaKIDS) and reading and math scores in third grade.

The WaKIDS assessment documents teachers' observations of children's skills within their first two months of kindergarten.⁶⁹ Observations are made in six domains: Social-emotional, physical, cognitive, language, literacy, and mathematics. Children are considered "kindergarten ready" in a given domain by achieving a certain score in that domain. Children who meet or exceed indicated scores in every domain are identified as being "ready" across all domains.⁷⁰

Other Outcomes

Academic test scores are the most frequently studied outcome in the national literature on ECE. However, these are not the only outcomes of interest. In addition to WaKIDS and third-grade reading and math scores, we will also utilize behavioral and program participation data to understand the impacts of Early Achievers on child outcomes. We will examine K-3 records on child school attendance, suspensions/expulsions, and grade retention, as well as participation in special education services and English language learner programs.

Study Cohorts

In selecting study cohorts we considered the timing of initial Early Achievers

⁶⁹ WaKIDS was legislatively mandated to be part of state-funded full-day kindergarten in the 2012-13 school year (RCW 28A.150.315 and RCW 28A.655.080). All Washington schools were reporting WaKIDS data starting in 2017-18.

⁷⁰ Education Research & Data Center. (2018). *Early learning feedback report*.

implementation, as well as Early Achievers participation milestone dates mandated by the Early Start Act of 2015. We accounted for the roll-out of WaKIDS in elementary schools over the same period. Finally, we considered when mature outcome data on kindergarten and 3rd-grade assessments would become available for analysis to produce WSIPP's report series.

For this evaluation, we will define birth cohorts using academic years (AY) running from September through August. This AY approach aligns with standard birthdate cutoffs for both ECEAP and kindergarten entry, the ECEAP academic year program, and the structure of our K-3 outcome data.

Exhibit 20 illustrates Early Achievers roll-out over time in existing ECEAP and subsidy sites for seven AY birth cohorts and the expected pre-kindergarten year(s) for each cohort. We also indicate the years of expected WaKIDS assessments and third-grade test scores. The four-year-old pre-kindergarten year represents the final year in which we would expect children to attend an Early Achievers site, so the extent of Early Achievers roll-out for this year is maintained across the cohort's K-3 follow-up period.

In addition, we note the percentage of elementary schools implementing WaKIDS in the indicated academic year. One implication of WaKIDS adoption over the same period as the initial Early Achievers roll-out is that WaKIDS assessment data for AY 2014-15 through AY 2016-17 will not be available for the full population of children impacted by Early Achievers.⁷¹

⁷¹ The WaKIDS was initially rolled out as a requirement tied to funding for full-day Kindergarten, starting with schools reporting the highest rates of children from low-income families.

Exhibit 20

Early Achievers Roll-Out by Academic Year Cohorts

| ECEAP Sites | | | | | | | | |
|-------------|----------------------|----------------------|----------------------|--------------------------|------------------------------|-----------------------------------------|--------------------------------------------------------|------------------------------------|
| Birth dates | 0- to 1- year old | 1- to 2- year-old | 2- to 3- year-old | 3-year-old Pre-k year | 4-year- old Pre-K year | School year of expected WaKIDS | School year of expected 3rd grade test scores | % of schools using WaKIDS |
| 9/08 - 8/09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2017-18 | 54% |
| 9/09 - 8/10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2018-19 | 75% |
| 9/10 - 8/11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2019-20 | 95% |
| 9/11 - 8/12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2020-21 | 100% |
| 9/12 - 8/13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2021-22 | 100% |
| 9/13 - 8/14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2022-23 | 100% |
| 9/14 - 8/15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2023-24 | 100% |

| Subsidy Sites | | | | | | | | |
|---------------|----------------------|----------------------|----------------------|--------------------------|------------------------------|-----------------------------------------|--------------------------------------------------------|-----------------------------------|
| Birth dates | 0- to 1- year old | 1- to 2- year-old | 2- to 3- year-old | 3-year-old Pre-k year | 4-year- old Pre-K year | School year of expected WaKIDS | School year of expected 3rd grade test scores | % of schools with WaKIDS |
| 9/08 - 8/09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2017-18 | 54% |
| 9/09 - 8/10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2018-19 | 75% |
| 9/10 - 8/11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2019-20 | 95% |
| 9/11 - 8/12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2020-21 | 100% |
| 9/12 - 8/13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2021-22 | 100% |
| 9/13 - 8/14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2022-23 | 100% |
| 9/14 - 8/15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2023-24 | 100% |

Notes:

| |
|---------------------------------------|
| Before EA |
| Limited, voluntary EA ratings |
| First required EA ratings |
| EA ratings approximately 50% complete |
| EA ratings 70-100% complete |

Pre-K to K Outcomes

We will examine the impact of pre-kindergarten CC/EL quality experience on kindergarten outcomes for six cohorts of children, born in AY 2008-09 through 2013-14. We expect this to correspond with kindergarten outcome data for AY 2014-15 through AY 2019-20.

Pre-K to Third Grade Outcomes

We will test the impact of pre-kindergarten CC/EL quality experiences on child outcomes through third grade for four AY cohorts born in AY 2008-09 through AY 2011-12. We expect this to correspond with third-grade assessments and other outcome data through AY 2020-21.

Infant-Toddler to Pre-K and Kindergarten Outcomes

If possible we will examine the impact of infants' and toddlers' CC/EL quality experiences for children born from AY 2011-12 through 2014-15. We expect this to correspond with kindergarten outcome data from AY 2017-18 through 2020-21.

Additionally, we would expect a subset of these children to also enroll in ECEAP and thus have available Fall TS-Gold skills assessment data that could be considered as a child outcome.

As indicated in [Exhibit 20](#) children in these AY birth cohorts may have been in child care in the years just before and after the Early Start Act mandate. However, infants and toddlers are served only by subsidy sites, which were not required to enroll in Early Achievers until August 2016, with ratings not required until December 2019.⁷² Thus, many licensed or certified child care sites serving infants and toddlers would not yet have been impacted by Early Achievers during relevant years. As a result, we will pursue analysis of infant and toddler quality experiences and outcomes to the extent possible given the data.

⁷² This deadline was extended in 2019 by [E2SHB 1391](#). Subsidy sites are now required to submit a request for an on-site rating by December 31, 2019.

VII. Outcome Evaluation: Limitations

Our ability to evaluate the impact of Early Achievers on child outcomes will be limited in several ways by the use of historical administrative data. This section provides a brief overview of these limitations, impact on our research design choices, and expected consequences for our results.

Research Design

The nature of evaluation in this area precludes the use of an experimental approach in which children are randomly assigned to CC/EL settings, ruling out selection bias. WSIPP has instead developed quasi-experimental research designs that address selection bias as effectively as possible given available data. Our approach will represent methodological progress for QRIS evaluation research.

Evaluation Timing

WSIPP's evaluation will necessarily draw data from the initial years of Early Achievers implementation. This approach provides the opportunity to capture the effects of QRIS introduction by examining average child outcomes before and after key points in Early Achievers participation. We will utilize data over approximately the first eight years of implementation, and Early Achievers has undergone a series of changes during that time. As outlined in [Section IV](#), we can largely accommodate these changes in our analyses. Our results will not reflect changes to Early Achievers implemented after AY 2019-2020.

Quality Ratings as Predictors

Although quality ratings are of central interest in investigating the impact of Early Achievers, there are a number of limitations inherent to using ratings data. First, the broader CC/EL literature indicates reliable but only modest connections between direct indicators of CC/EL quality and child outcomes. Further, some standard areas, such as observed learning environment and interactions, are considered to more strongly reflect quality than others.⁷³ As a result, when scores are aggregated across standards, they reflect quality in broad and inconsistent ways. Additionally, programs can meet or exceed expectations for a standard but choose not to be evaluated on the standard in a records review because of administrative burden.

Similarly, the Reciprocity Pathway may mask variability within ECEAP programs. Programs can earn higher ratings through different means, some of which may be more closely related to quality. This final issue may be somewhat mitigated by the minimum threshold for ERS-R and CLASS that applies to all facility ratings, which increases the relative value of those assessments for WSIPP's evaluation.

⁷³ Fox et al. (2019).

We also note that there is limited variability in the overall quality ratings. Most facilities earn their required rating level, and thus most children are served by facilities at the required rating level. Further, the quality differences represented by different rating levels may actually be small, and therefore of less predictive value.

Higher quality ratings indicate earning more points on a set of state-defined standards. However, high-quality ratings are unlikely to predict child outcomes if they do not align with the objectively high-quality care known to be modestly predictive of children's positive development. This is especially relevant given some evidence that quality is predictive of child outcomes only within variation at the high end of the range.⁷⁴

Finally, overall quality ratings are assigned at the facility level. Observations of quality, considered most directly reflective of children's experience, are conducted at the classroom level. The average classroom rating is used to determine whether a facility met the required ERS and CLASS thresholds. Administrative data are available to identify ERS and CLASS scores of each child's classroom for ECEAP students. For children in subsidy sites, there is no administrative data identifying which classroom a child attended.⁷⁵ We expect this to attenuate the association between quality ratings and child outcomes.

⁷⁴ Burchinal et al. (2010; 2016).

⁷⁵ WSIPP will have data allowing us to account for classroom-level variation in observed quality. We expect this to be a greater issue in child care centers than in family home child care facilities, where children are typically in a single classroom.

VIII. Summary

This report outlines WSIPP's assignment and plans for the Early Achievers evaluation report series, presents essential background information, and outlines WSIPP's preferred research designs.

We summarized the literature on quality and child outcomes. While high quality in CC/EL settings is modestly but reliably associated with positive development, existing QRIS child outcome validation studies indicate weak, inconsistent associations between ratings and child outcomes. This may be due, in part, to research design features, evaluations being conducted early in QRIS implementation, and limitations of the ratings themselves as predictors. This body of research is in an early stage.

We also described implementation, key features, and current rating status for Early Achievers, Washington's QRIS. Early Achievers shares many characteristics with QRIS implemented in other states over the past decade.

WSIPP continues to monitor Early Achievers implementation, ratings, and the broader QRIS evaluation literature, and we are in the process of integrating data sources for this evaluation. We are well-positioned to produce the most rigorous test to date regarding QRIS impact on child outcomes by completing a quasi-experimental evaluation using administrative data sources over a relatively long time-span.

WSIPP's next report in the Early Achievers evaluation series, due in December 2020, will address the impact of Early Achievers during children's pre-kindergarten year on outcomes in kindergarten, including kindergarten readiness assessed by the WaKIDS.

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Appendix

Early Achievers Evaluation Report One: *Background and Research Design*

I. QRIS Child Outcomes Validation Studies

WSIPP reviewed the following QRIS child outcomes validation studies:

- Compass Evaluation and Research, Inc. (2017). *Ohio's SUTQ: Validation study results*. Durham, NC: Compass Evaluation and Research, Inc.
- Early, D.M., Maxwell, K.L., Blasberg, A., Miranda, B., Orfali, N.S., Bingham, G.E., . . . , Gebhart, T. (2019). *Quality Rated Validation Study Report #4: Quality Rated Star Ratings and Independent Measures of Quality, Children's Growth, and Work Climate*. Bethesda, MD: Child Trends.
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