

# Research Plan

Evaluation of the Mixed Delivery Preschool Pilot Program  
Virginia Early Childhood Foundation

December 9, 2016



# Overview of Research Plan

In October 2016, the Virginia Early Childhood Foundation (VECF) contracted with School Readiness Consulting (SRC) to conduct an evaluation of the Mixed Delivery Preschool Pilot Program. SRC's mission is to ensure that all children, especially those in under-resourced communities, experience an early childhood education that translates to success in school and in life. In partnership with VECF and the mixed delivery grantees, SRC developed this research plan to conduct a rigorous evaluation of the mixed delivery program that is responsive to the needs and priorities of the state Legislature and Administration (including Virginia's executive branch, the Governor's office, legislators, the Virginia Department of Education, and other state agencies), program administrators, and grantees.

*Evaluation Approach:* The evaluation will use a mixed methods approach, including qualitative and quantitative data and analysis, to address five research questions:

- 1) What are the successes and challenges experienced by grantees as they implement the Mixed Delivery Preschool Pilot Program, and what are the lessons and best practices that can be useful for future implementation of mixed delivery preschool?
- 2) What are the preschool enrollment outcomes in private-sector programs in communities that received Mixed Delivery Preschool Pilot Program grants?
- 3) What are the program quality outcomes in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?
- 4) What are the language, literacy, numeracy, and self-regulation outcomes of children in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?
- 5) What role do teacher qualifications play in the child outcomes of the Mixed Delivery Preschool Pilot Program grants?

The study team developed the evaluation approach to be responsive to the goals and priorities of stakeholders, including VECF, grantees, and the state Legislature and Administration. The study is designed to rigorously address the priorities for the evaluation that were laid out in the RFP, respond to grantees' interest in hearing about successes and challenges among their peers, and minimize the burden of data collection on grantees and their local partners. SRC plans to use data that is already being collected by state agencies and by grantees, and will supplement the existing data by collecting additional data that is needed to address study research questions.

*Study Participants:* The evaluation will include three types of participants: grantees, early childhood program staff, and children attending both the school-based and mixed delivery preschool classrooms. The study sample will include participants from the Cohort 1 grantees (2016-17 and 2017-18) and Cohort 2 grantees (2017-18 and 2018-19).

*Timeline for Grantee Participation in the Study.* Below, we indicate the timeline of study participation for grantees, with reference to the first or second year of the grant. The calendar year differs for Cohort 1 and Cohort 2 grantees, as shown in parentheses.

Spring, Year 1 of Grant (Spring 2017 for Cohort 1, Spring 2018 for Cohort 2)

- SRC will request assistance from grantees in engaging mixed delivery programs and recruiting school-based preschool programs in their communities for the study.
- SRC will collect qualitative data on mixed delivery pilot implementation (site visits for Cohort 1 grantees, telephone interviews for Cohort 2 grantees).
- SRC will request that grantees and participating programs provide data on program characteristics. SRC will provide grantees with templates for reporting this data.
- In summer, SRC will request existing data from state agencies on PALS literacy scores, VPI enrollment, and Virginia Quality ratings for the past 3 years.

Fall, Year 2 of Grant (Fall 2017 for Cohort 1, Fall 2018 for Cohort 2)

- In late summer or early fall, SRC will partner with school-based and mixed delivery preschool programs to collect family consent for child participants and information about child characteristics during the child enrollment process. SRC will provide programs with templates for collecting and reporting the child characteristics data.
- SRC will visit participating programs to conduct fall child assessments with consented children, using the Woodcock-Johnson III to assess literacy, language, and numeracy skills and the Head Toes Knees Shoulders to assess self-regulation skills.
- SRC will request data from state agencies on VPI enrollment for the current year.

Spring, Year 2 of Grant (Spring 2018 for Cohort 1, Spring 2019 for Cohort 2)

- SRC will partner with school-based and mixed delivery preschool programs to invite teachers to participate in a voluntary survey of instructional practices. Participating teachers will receive a \$25 gift card to thank them for their time.
- SRC will visit participating programs to conduct spring child assessments with consented children, using the Woodcock-Johnson III and Head Toes Knees Shoulders.
- SRC will request that grantees and participating programs provide data on program characteristics. SRC will provide grantees with templates for reporting this data.
- In summer, SRC will request existing data from state agencies on PALS literacy scores and Virginia Quality ratings for the current year.

*Sharing Study Findings.* Findings will describe successful strategies for mixed delivery preschool, impacts on private preschool enrollment, program quality and child outcomes, and the role of teacher qualifications in these outcomes. Findings will be shared in the following ways:

- In-person presentation of findings to date in summer of 2017, 2018, and 2019
- Briefs and infographics summarizing study findings in summer of 2017 and 2019
- A comprehensive report of all study findings in summer of 2019

In addition, SRC will provide grantees with a quarterly newsletter with evaluation highlights.

# Introduction

Participation in high-quality preschool programs is linked with better preparation for kindergarten, especially among at-risk children (Howes et al., 2008; Yoshikawa & Zaslow, 2013). In Virginia, the Virginia Preschool Initiative (VPI) provides high-quality public preschool to over 18,000 at-risk four-year-olds each year (Barnett et al., 2016). However, not all eligible four-year-olds in the state have been served by VPI, for a variety of reasons including financial challenges, constraints on available space for preschool classrooms in public schools, and limited partnerships between public and private preschool programs. One potential way to address these challenges is to expand mixed delivery systems that support delivery of high-quality public preschool in private programs, with the goal of increasing access to high-quality preschool for eligible children.

To explore the benefits of community-driven, public/private mixed delivery systems for preschool, the Virginia Early Childhood Foundation (VECF) launched the Mixed Delivery Preschool Pilot Program with support from the Governor and Virginia General Assembly. VECF has awarded and will administer mixed delivery pilot grants to five community grantees in July 2016 (Cohort 1 grantees), and plans to award a second round of up to six mixed delivery pilot grants in July 2017 (Cohort 2 grantees). The mixed delivery grantees will field test innovative strategies that support a public/private system of preschool delivery.

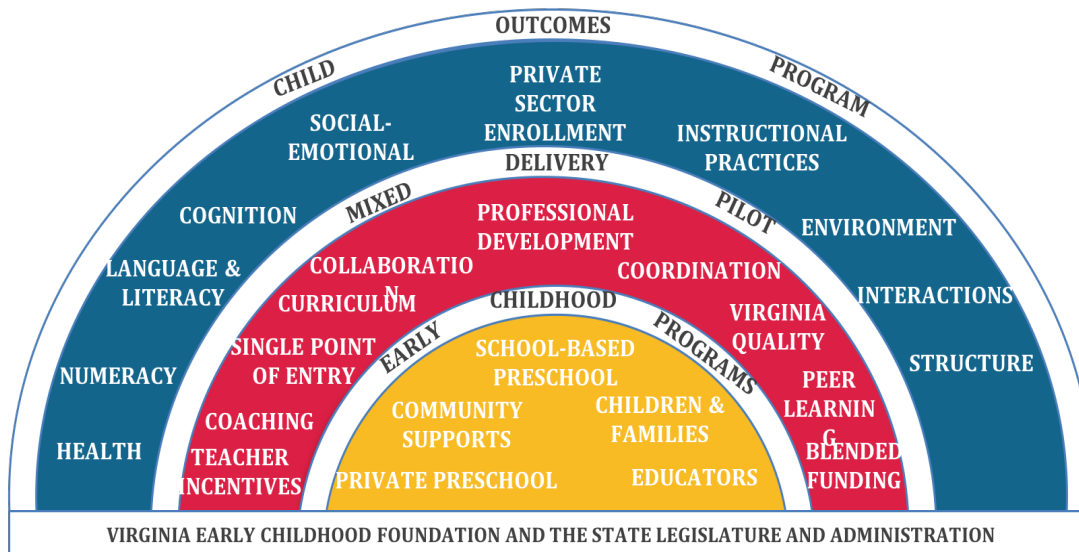
VECF contracted with SRC to conduct a comprehensive evaluation of the mixed delivery pilot. The SRC team has scientific expertise in research methodology and measurement, content expertise in early childhood education and mixed delivery systems, and contextual knowledge about early childhood systems in Virginia. In addition, SRC has a unique background as both evaluators and practitioners, and bring extensive experience partnering with diverse stakeholders to plan, design, and implement high quality research.

This research plan for the evaluation presents a theory of change for the mixed delivery grants, identifies the research questions for the study, describes the study approach to protecting human subjects, describes the study design and methods, presents a plan for dissemination of study results, and identifies the tasks needed to complete the study and the staff members responsible for each task.

# Theory of Change

The research plan for the evaluation will be informed by a theory of change for the mixed-delivery initiative, shown in Figure 1 below. In this theory of change, early childhood programs are the core of the mixed-delivery system, encompassing private and school-based preschool programs, the educators that work in these programs, the children and families that participate in the programs, and the communities that support these programs. The mixed delivery pilot initiative adds a new layer of resources and opportunities for these early childhood programs, such as teacher incentives, coaching, single point of entry systems, curricula, collaboration and coordination opportunities, professional development, supports through Virginia Quality, peer learning opportunities, and blended funding. These new resources and opportunities are expected to help programs achieve their desired child outcomes (such as literacy, language, numeracy, and social-emotional skills), enrollment increases, and program outcomes (such as improved instructional practices, classroom environment, adult-child interactions, and program structure). State-level supports, including those from the state Legislature and Administration and VECF, provide a foundation for the new initiative.

Figure 1. Theory of Change for the Mixed Delivery Preschool Pilot Program



The research plan for the evaluation aligns with this theory of change, by examining implementation of the new resources and opportunities that are part of the mixed-delivery pilot, and by examining the program and child outcomes that occur as grantees implement their pilot grants.

# Research Questions for the Study

The research questions for the study were determined based on the priorities of the mixed-delivery grantees, VECF, and the state Legislature and Administration. The research questions include:

- 1) What are the successes and challenges experienced by grantees as they implement the Mixed Delivery Preschool Pilot Program, and what are the lessons and best practices that can be useful for future implementation of mixed delivery preschool?
- 2) What are the preschool enrollment outcomes in private-sector programs in communities that received Mixed Delivery Preschool Pilot Program grants?
- 3) What are the program quality outcomes in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?
- 4) What are the language, literacy, numeracy, and self-regulation outcomes of children in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?
- 5) What role do teacher qualifications play in the child outcomes of the Mixed Delivery Preschool Pilot Program grants?

The research questions can be grouped into two study components, an implementation study that examines the implementation of the mixed delivery pilot and an outcomes study that examines program and child outcomes of the mixed delivery pilot activities. The implementation study includes research question 1 and the outcomes study includes research questions 2, 3, 4, and 5.

## Protections for Human Subjects

SRC is committed to ethical research practices and the protection of human subjects in the collection and use of data. SRC maintains strict procedures to protect clients' rights, welfare, privacy, and confidentiality. Project staff and data collection staff are required to complete program training on Human Subjects Research. The training, *Protecting Human Research Participants*, is offered by the National Institute of Health Office of Extramural Research. It is a three-hour course that consists of seven modules; each addressing the principles used to define ethical research using humans and the regulations, policies, and guidance that describe the implementation of those principles.

The study team will submit the research plan and study materials (and any changes that are made throughout the course of the study) to an independent Institutional Review Board (IRB), to ensure that the evaluation meets the highest standards of research ethics. SRC will also work with VECF and the local grantees, schools, and programs to ensure compliance with their requirements to conduct research with their staff and students. In addition, SRC maintains a high level of data security to ensure the protection of data collected for the study, and all study team members and field staff members are required to sign a confidentiality agreement indicating that they understand and agree to protect the confidentiality of all data. Below, we provide additional information about the IRB process used by SRC and our data security procedures.

## Institutional Review Board

Upon approval of the research plan, the study team will submit the plan and other study materials for review by an independent IRB. The IRB process is designed to ensure that the evaluation meets the highest standards of ethics and protection of human subjects in the study. In parallel, the team will develop procedures and processes for obtaining consent, collecting and storing data, and sharing data between the evaluation team and VECF.

SRC will work with Ethical and Independent Review Services, LLC (E&I) to complete the IRB review for the evaluation. E&I has over 45 years of experience conducting IRB reviews, and operates in compliance with the regulations found in the Common Rule. E&I applies the principles found in the [Belmont Report](#) (United States, 1978) in conducting the IRB review. E&I's IRB is registered with the United States Office of Human Research Protections (organization number 00006502) for the review of human subjects research regulated by federal agencies, including the Department of Health and Human Services. E&I will also provide consultation to SRC on how to meet any Family Educational Rights and Privacy Act (FERPA) requirements and other state and federal laws that apply for this evaluation.

## Data Security

SRC conducts business in a highly mobile and virtual environment, and has procedures in place to ensure the security of electronic data. Employees work from laptop computers both in the office and from their homes. All devices require users to login with their unique password, and SRC ensures all computers have up-to-date security patches. All files and data are stored on cloud-based commercial servers, with access granted by the network administrator. Login for these sites requires two-factor authentication. These third-party

services provide file backup and recovery that ensures that data is secure and recoverable from any location or device. SRC also has the capability to send encrypted email (including attachments).

Only authorized members of the study team will have access to the study's electronic data files. SRC will ensure that all electronic data for the study is stored in de-identified format, in which participants' personally identifying information is removed and replaced with unique study identification numbers. The use of unique identification numbers instead of personal identifiers serves to protect the privacy of study participants should unauthorized users obtain access to an electronic data file.

Hard copies of data collected for the study will be delivered directly to the project manager at SRC by the study field staff, and will be stored securely on site at SRC during the data entry and cleaning process. Only authorized members of the study team will have access to the hard copies of the data. Once the data have been cleaned, all hard copies of study data and documents will be stored at an offsite secure storage facility until no longer needed. SRC will destroy study data materials three years after the conclusion of the contract.

## Study Design and Methods

The study team developed the study design and methods to be responsive to the goals and priorities of stakeholders, including VECF, grantees, and the state Legislature and Administration. The study is designed to rigorously address the priorities for the evaluation that were laid out in the RFP, respond to grantees' interest in hearing about successes and challenges among their peers, and minimize the burden of data collection on grantees and their local partners. In the evaluation, SRC plans to use existing data that is already being collected by state agencies and additional data collected by grantees and the SRC study team.

The study design and methods part of the research plan describes the sample, data, and analysis methods that will be employed to address the evaluation's five research questions. First, we describe the study sample, including the sample of grantees, classrooms and teachers, and children we will invite to participate in the study. Next, we describe the data and measures we will use for the evaluation, including existing data that is collected by state agencies and data collected for the study. We also provide an overview of SRC's data collection procedures and the timeline for study data collection. Finally, we describe the analysis methods that will be used to address each research question for the evaluation.



## Study Sample

The study will include three types of participants: grantees, school-based and mixed delivery classrooms and the programs or schools they are located in, and children attending both the school-based and mixed delivery preschool classrooms. The study sample will include participants from the Cohort 1 grantees (with mixed delivery grants implemented in 2016-17 and 2017-18) and Cohort 2 grantees (with mixed delivery grants implemented in 2017-18 and 2018-19). Below, we describe the planned sample for each type of study participant, and our approach to recruiting participants and obtaining family consent for conducting child assessments.

### Sample of Grantees

The study sample will include all Cohort 1 and Cohort 2 grantees, both as participants in the implementation and outcomes parts of the study and to assist in recruiting programs and classrooms for the study. The Cohort 1 grants were awarded to five grantees in the summer of 2016, and include Charlottesville-Albemarle Early Education Task Force (Charlottesville), James Madison University (Harrisonburg), Roanoke Mixed Delivery Preschool Program (Roanoke), Smart Beginnings Rappahannock Area Mixed Delivery Pilot Project (Rappahannock), and Wythe County Pre-K Partnership (Wythe County). The Cohort 2 grants will be awarded to up to six grantees in the summer of 2017, and the Cohort 2 grantees may be located in any part of Virginia.

Through our partnership with VECF, it has been established that each of the grantees and their local mixed delivery programs will engage in the study. In the startup phase of the evaluation contract, the study team met by telephone with each of the Cohort 1 grantees and attended the grantee meeting on November 2, 2016, in order to engage the grantees in early conversations about the research plan, build collaborative relationships with the grantees, and ensure buy-in for the study. The study team will reach out to the Cohort 2 grantees when they receive their awards, and will invite them to collaborate and participate in the study as well.

### Sample of Programs and Classrooms

The study will include school-based and mixed delivery preschool classrooms in each grantee, and the programs or schools they are located in. Both program and classroom staff will be included as participants in the implementation part of the study and in the outcomes part of the study. For the implementation study, program and classroom staff will be invited to

participate in focus groups in spring 2017 (for Cohort 1 sites) or a group telephone interview in spring 2018 (for Cohort 2 sites). Classroom teachers will also be invited to participate in a survey of instructional practices in the spring of the second year of mixed delivery grant implementation (spring 2018 for Cohort 1 and spring 2019 for Cohort 2). The study team plans to include approximately 8 teachers per site in the Cohort 1 focus groups (40 total), and also plans to include approximately 8 teachers per site in the surveys for Cohorts 1 and 2 (88 total). The telephone interviews with the Cohort 2 grantees may include 1 or 2 program or classroom staff members in each site.

*Engagement of Mixed Delivery Preschool Programs and Staff.* Local mixed delivery programs and staff are expected to participate in the study as part of their involvement in the Mixed Delivery Preschool Pilot Program, so SRC will work to engage and partner with these programs rather than recruit them for the study. SRC will partner closely with each grantee to reach out to their local mixed delivery preschool programs and staff. If needed, SRC will request assistance from the VECF or VDOE to encourage and support local division participation. First, SRC will develop an email template for each grantee to send to the mixed delivery programs to introduce the study team, describe the evaluation activities and goals, and encourage the program to participate in the evaluation. SRC will ask the grantees to use this template to introduce our team in the spring of the first grant year (spring 2017 for Cohort 1 and spring 2018 for Cohort 2), so SRC can invite these programs to participate in both the implementation study and the outcome study. Second, the project manager at SRC will follow up to the grantee's introductory email to invite the program to participate in the evaluation, describe the goals and purpose of the study, provide more details about what participation entails, and offer to answer any questions. SRC will request that each program designate a study liaison to serve as the main contact person at the program for all matters relating to the study, including assistance with contacting program staff about the study activities, collecting consent forms for children, and scheduling the child assessments.

SRC will invite program staff to participate in the study, including participation in focus groups and interviews for the implementation study and a survey of instructional practices for the outcomes study. SRC will ask the program's study liaison to send an introductory email to staff about the study, and the SRC team will send a follow-up email explaining the goals and purpose of the study, what is required for study participation, and the incentives that will be offered to thank them for their time during data collection.

*Recruitment of School-Based Preschool Programs.* The study design calls for inclusion of local school-based programs offering VPI preschool. These programs will be recruited for voluntary participation in both the implementation study and the outcome study. SRC will partner closely with each grantee to determine the best approaches to recruit the school-



based preschool programs in their communities. The specific recruitment strategies may vary from district to district, but will include outreach to the school district superintendents, school principals, VPI preschool program administrators, and school-based preschool teachers in each community.

SRC will develop email templates for these communications, and will work with each grantee to determine the protocol for initial and ongoing outreach and communication with these school-based preschool program partners, beginning in the spring of the first grantee year for each cohort (spring 2017 for Cohort 1 and spring 2018 for Cohort 2). The email templates will introduce the study team, describe the goals and purpose of the study, provide detailed information about what study participation entails, offer to answer any questions, and thank the program for their consideration. SRC will clearly indicate that participation in the study is voluntary, and will describe the goals and purpose of the study as a way to encourage programs to participate. Once programs agree to participate in the evaluation, SRC will request that each program designate a study liaison to serve as the main contact person at the program for all matters relating to the study, including assistance with recruiting program staff for the study activities, collecting consent forms for children, and scheduling the child assessments.

SRC will also recruit school-based preschool program staff to participate in the study, including participation in focus groups and interviews for the implementation study and a survey of instructional practices for the outcomes study. SRC will ask the program's study liaison to send an introductory email to staff about the study, and the SRC team will send a follow-up email explaining the goals and purpose of the study and inviting them to participate. Program staff will be informed that participation in the study is voluntary, and will receive information about what study participation entails and the incentives that will be offered to thank them for their time during data collection.

## Child Sample

The study will include children attending both school-based and mixed delivery preschool classrooms that have agreed to participate in the study. Children will be included as participants in the outcomes part of the study, drawing from extant PALS literacy scores and also child assessment data collected for the study.

The study team will request that VDOE provide the study team with all available extant data on PALS literacy scores for children attending school-based and mixed delivery VPI preschool classrooms in each grantee community. The study team will request these data for each year of the mixed delivery grant and, if possible, in the two years preceding the grant as

well. The study team will request that these data be provided in de-identified format, so that the study team will not require consent from each family to collect these data.

In addition, the study team will conduct assessments of child development skills, including language, literacy, numeracy, and self-regulation skills, for children with family consent to participate in the study. These data will be collected in the second year of mixed delivery grant implementation (2017-18 for Cohort 1 and 2018-19 for Cohort 2). The study team plans to assess a total of 270 children across these two years of the study, including 30 children total in each grantee site for Cohort 1 (including children in school-based preschool and mixed delivery slots) and 20 children total in each grantee site for Cohort 2 (including children in school-based preschool and mixed delivery slots). The study team will randomly select children to participate in the study if we receive more consent forms than are needed.

*Family Consent for Child Assessments.* SRC will actively work to obtain family consent for the evaluation for children in VPI slots in participating programs. Prior to the start of the school year (August and September of 2017 for Cohort 1 and of 2018 for Cohort 2), we will work with the study liaisons at each program to gather informed consent from families. SRC will develop a family-friendly consent form that clearly and succinctly describes the study purpose and goals, the activities required for data collection, the human subjects protections, and the voluntary nature of participation. The consent forms will also serve the purpose of collecting child and family characteristics data for the study. We propose having our field staff attend enrollment functions and other family events at participating programs in order to deliver information about the project to parents and guardians. We will strive to gather consent as many participants as possible in each site, and if we obtain more consent forms than needed in a site we will randomly select children to participate in data collection for the study.

## Data and Measures

The study will make use of existing data collected by state agencies, data collected by grantees and participating programs on program and child characteristics, and data collected for the study by the SRC team. Below, we provide detailed information about each type of data and measures, SRC's approach to data collection for the study, and a timeline for data collection.

## Existing Data and Measures Collected by State Agencies

The study team will partner with VECF to request existing data collected by state agencies in the state, including enrollment and demographics for children in VPI, literacy scores collected by VDOE for children enrolled in VPI, and Virginia Quality data collected on participating programs. SRC will request assistance from VECF in securing a data sharing agreement (specifically a Restricted-Use Data Agreement or RUDA) with VDOE and the Virginia Department of Social Services (VDSS) to use these data for the study.

After obtaining a RUDA with each agency, the study team will request the data outlined below for programs in grantee communities in each year of their mixed delivery grant (2016-17 and 2017-18 for Cohort 1 grantees and 2017-18 and 2018-19 for Cohort 2 grantees, as indicated in the data collection timeline below). The study team will also request these data for the two years prior to the grant if available. We recognize that the existing data may not be available for all programs participating in the study, particularly the mixed delivery programs. In such cases, we will collect whatever extant data that is available for use in the study, acknowledging that missing data will introduce some limitations in the way the study analyses can be interpreted.

*Enrollment and Demographics.* The study team will request that VDOE provide data on the total number of children served in VPI, and also the number of children served in mixed delivery classrooms and school-based classrooms, in the divisions represented by each grantee during each year of the study as well as in the two years prior to the study. The study team will request that the number of children served also be broken out by race and ethnicity (white non-Hispanic, black non-Hispanic, Hispanic any race, and other races non-Hispanic) and gender, if possible. The study team

*Literacy Scores for Children in VPI.* The study team will request that VDOE provide de-identified child-level data on Phonological Awareness Literacy Screening (PALS) PreK literacy scores (Invernizzi, Sullivan, Meier, & Swank, 2004), for children enrolled in VPI in grantee communities. PALS-PreK was developed by researchers at the University of Virginia to measure preschoolers' developing knowledge of phonological awareness and literacy fundamentals that are predictive of future reading skills. The assessment measures skills including name writing ability, upper-case and lower-case alphabet recognition, letter sound and beginning sound production, print and word awareness, rhyme awareness and nursery rhyme awareness. The assessment is designed to be administered to four-year-olds in both the fall and spring of preschool, but not all classrooms collect PALS scores at both time points. The study team expects these data to be available for all participating school-based preschool programs. The study team will work with each grantee and participating programs

to determine the availability of PALS PreK data in mixed delivery programs, and how to best obtain these data. SRC will request data on the overall PALS scores at each available time point as well as subscores for each measured skill. SRC will request these scores for each child in VPI as well as information about which classroom and program children attended and any other available information in the existing data about child characteristics. However, SRC will request that these data be provided in de-identified format with no information that could be used to identify the child (such as first and last name and date of birth). SRC will request these data for each year of the grant as well as the two preceding years (2014-15, 2015-16, 2016-17, and 2017-18 for Cohort 1 and 2015-16, 2016-17, 2017-18, and 2018-19 for Cohort 2), as available in each community.

*Virginia Quality Data.* The study team will partner with VECF to determine procedures for requesting data on the quality of participating programs from the Virginia Quality system, the state's quality rating and improvement system, through VDSS. Once the RUDA is in place, the study team will request the overall Virginia Quality rating level of each program and the program's scores on two measures of program quality that are included in the system, the Classroom Assessment Scoring System (CLASS) and the Environmental Rating Scales (ERS). Not all school-based preschool and mixed delivery programs in grantee communities have participated in Virginia Quality, although some grantees require programs with mixed delivery classrooms to participate in the system. Furthermore, only programs with higher Virginia Quality ratings will have CLASS and ERS data available as part of the system. SRC will request all available data from programs in grantee communities that are participating in Virginia Quality and provide school-based preschool or mixed delivery services.

## Data and Measures Collected for the Study by Grantees

SRC will request that grantees or the participating programs in each grantee community provide us with data on program and classroom characteristics, characteristics of children in the study sample, and data collected by grantees on implementation of their local mixed delivery grants. The study team will work with grantees to determine whether the grantee agency or participating programs will provide these data. The study team will request all data for each year of their mixed delivery grant (2016-17 and 2017-18 for Cohort 1 grantees and 2017-18 and 2018-19 for Cohort 2 grantees, as indicated in the data collection timeline below). The SRC study team will provide grantees with templates for collecting and reporting these data, including a form for families to complete for the study providing data on child and family characteristics as well as consent to participate in the study.

*Program and Classroom Characteristics.* The study team will request that grantees or participating programs provide data on the characteristics of the programs, classrooms and teachers.

Program characteristics that we request will include total enrollment by age group (infants and toddlers, three-year-olds, four-year-olds, five and older), types of public funding received (child care subsidies, Head Start, VPI, other sources), and schedule/ hours of operation (full day/ part day, full year/ school year). Classroom and teacher characteristics that we will request include ratio of enrolled children to adults in the classroom, years of experience of each teacher in the classroom, education level (less than high school diploma or GED, high school diploma or GED, some college, associate's degree, bachelor's degree, master's degree or other graduate degree) and credentials (CDA, teaching license or certification, coursework in child development or early childhood education, other credentials) of each teacher in the classroom, and role of each teacher in the classroom (lead teacher, co-teacher, assistant teacher, aide).

*Characteristics of Children in the Study Sample.* The study team will request that participating programs collect information about the characteristics of children in the study sample, including demographics, prior early childhood education experiences, literacy practices in the home, and attendance rates. SRC recommends that the participating programs collect these data while enrolling children in the program, as part of the intake process, to ensure that data are available for all children. Alternatively, these data may be collected on the study consent forms. Specifically, we will request information about the child's gender, the child's race and ethnicity (white non-Hispanic, black non-Hispanic, Hispanic any race, and other races non-Hispanic), if English is the primary language spoken at home, if the child has an IEP or not, the mother or other primary guardian's education level (less than high school diploma or GED, high school diploma or GED, some college, associate's degree, bachelor's degree, master's degree or other graduate degree), the child's prior experience with early childhood education (if the child had any prior child care or preschool, and if so if this was in a center-based program), and literacy practices in the home (frequency of adult reading to child at home). In addition, the study team will request that grantees provide data on child attendance rates and duration of enrollment in the program, if available. Note that data on socioeconomic status will not be collected for the study since almost all children enrolled in VPI will be of low socioeconomic status due to VPI eligibility criteria.

*Implementation Data Collected by Grantees.* The study team will collect and code existing data on implementation of the mixed delivery grants, including grantee work plans, grantee annual reports submitted to VECF, and a transcribed recording of the November 2016 grantee meeting. In addition, the study team will request that grantees provide any other data collected locally that may be of use for understanding implementation of the grants. For example, some grantees' work plans indicated that they planned to collect information about mixed delivery implementation for their local evaluations. We will ask grantees to share these data if possible, so we can include this information in our analyses.

## Data and Measures Collected for the Study by the SRC Team

The data collected for the study by the SRC team will include a series of focus groups conducted during grantee site visits, telephone interviews with grantees, surveys of instructional practices, assessment of child developmental skills in three domains, and data on child characteristics.

*Grantee Site Visit Focus Groups.* In spring of 2017, SRC team members will conduct site visits to each of the five Cohort 1 grantees, to collect detailed information about implementation of the mixed delivery pilot program in the first year of their grant. During the site visits, the study team will conduct up to three focus groups with grantee agency staff, administrators and teaching staff in mixed delivery and school-based preschool programs, and families participating in mixed delivery classrooms. The study team will work closely with each grantee to identify the particular program staff that should be invited to participate in the focus groups. The goal of the focus groups will be to learn about:

- Strategies that have worked well in early implementation of mixed delivery
- Strategies that have not worked as well
- Challenges to implementation of mixed delivery, and the experiences grantees have had in addressing these challenges
- Lessons learned during mixed delivery implementation
- Innovative activities or approaches

The focus groups will be conducted by two SRC team members with experience and training in qualitative data collection and analysis, including specific experience conducting focus groups. One team member will be designated as the lead facilitator of each focus group, and will use a focus group protocol developed for the study to guide the focus group conversation. The lead facilitator will ensure that the conversation remains relevant to the focus group purpose, and will ask probes and follow-up questions to ensure that we receive detailed and informative information about grantee experiences. The second team member will support the lead facilitator during the focus group and will be responsible for obtaining consent forms at the start of the focus group, taking notes, and recording the conversation. The focus groups will be recorded and transcribed for the implementation study analysis.

*Grantee Telephone Interviews.* The study includes two rounds of grantee telephone interviews. One set of grantee interviews was conducted in October 2016, with each of the five Cohort 1 grantees. These telephone interviews focused on verifying information about each grantee's approach to the mixed delivery pilot and collecting information about grantee



priorities for the evaluation. These telephone interviews were recorded and will be transcribed for the implementation study analysis.

The second round of grantee telephone interviews will be conducted in the spring of 2018 with Cohort 2 grantees, in their first year of mixed delivery pilot implementation. The interviews will focus on the same set of topics included in the grantee site visit focus groups conducted with Cohort 1 grantees, but will be condensed into a single group telephone interview with grantee staff and any key program staff they would like to invite to participate in the conversation. The grantee telephone interviews will be guided by a telephone interview protocol, which will be developed specifically for this study by reviewing and condensing the focus group protocols used during the site visits. The grantee telephone interviews will be conducted by two SRC team members with experience and training in qualitative data collection and analysis. One team member will be designated as the lead interviewer who ensures that the conversation remains relevant to the interview purpose, and will ask probes and follow-up questions to ensure that we receive detailed and informative information about grantee experiences. The second team member will support the lead interviewer during the telephone interview and will also take notes during the call. The grantee telephone interviews will be recorded and transcribed for the implementation study analysis.

*Surveys of Instructional Practices.* To assess classroom quality, the study team proposes to conduct a survey of teachers in public preschool and mixed delivery classrooms about their instructional practices. To develop this survey, the study team will first partner with the mixed delivery grantees and VECF to identify the specific instructional practices to ask about in the survey. SRC will email each grantee and VECF to request their assistance in identifying the specific instructional and classroom practices they hope to encourage in mixed delivery classrooms through the pilot program efforts. This information will serve as a measure of program quality outcomes that is aligned with the purpose of the study, and will be complementary to (and not redundant with) the program quality data collected for Virginia Quality. We will draw upon SRC's expertise in survey research methods to develop a well-designed survey of key instructional practices for the mixed delivery classrooms, and will request feedback on the survey draft from both grantees and VECF before finalizing the survey.

The study team will then administer the survey electronically to the preschool teachers in each grantee community that have agreed to participate in the study. The survey will be conducted in the spring of the second year of mixed delivery grant implementation for each cohort (spring 2018 for Cohort 1 and spring 2019 for Cohort 2, as described in the data collection timeline below).

*Assessment of Child Development Skills.* Assessment of child development skills will occur in both the fall and the spring of the preschool year, during the second year of mixed delivery grant implementation for each cohort (2017-18 for Cohort 1 and 2018-19 for Cohort 2, as described in the data collection timeline below). We will measure skills in key domains of development, including early language skills, early literacy skills, early numeracy skills, and self-regulation skills. Below, we describe the battery of measures we have selected to assess children's skills in each domain, with validated instruments that are commonly used in early childhood research nationally and in Virginia (including VDOE's current evaluation of VPI+, which the study team is conducting in partnership with SRI). The study team is committed to ensuring developmentally appropriate assessment practices, and has selected a battery of instruments that is expected to take up to 30 minutes for each child, a total assessment time that is considered appropriate for preschoolers.

To measure early language, literacy, and numeracy skills, we propose using the Woodcock-Johnson III (WJ-III; Woodcock, McGrew, & Mather, 2001), a standardized, nationally norm-referenced achievement test with reliability demonstrated by high internal consistency (alphas ranging from .76 to .91). If some children in the study sample are Spanish-speakers with limited English proficiency, we will also use the Bateria III Woodcock-Muñoz (Muñoz-Sandoval, Woodcock, McGrew, & Mather, 2005), the aligned Spanish version of the assessment. We will use three subtests of this instrument that are frequently used in other research on early childhood programs: the Letter-Word Identification subtest (a measure of early literacy), the Picture Vocabulary subtest (a measure of language), and the Applied Problems subtest (a measure of early numeracy). The Letter-Word identification subtest assesses children's ability to identify letters and words. The Picture Vocabulary subtest assesses children's receptive and expressive vocabulary. The Applied Problems subtest assesses early numeracy skills including counting, addition, and subtraction. Each subtest takes approximately 5 to 8 minutes, for a total of approximately 15 to 24 minutes for all three subtests.

To assess self-regulation skills, we propose using the Head Toes Knees Shoulders (HTKS) measure (Ponitz, McClelland, Jewkes, Connor, Farris, & Morrison, 2008). This measure involves an activity in which children are asked to exhibit an opposing response when asked to do something (such as touch their toes when asked to touch their head). The activity involves working memory, cognitive flexibility, and inhibitory control, and thus provides a good measure of executive function and self-regulation, and has high internal consistency (alphas ranging from .92 to .94). This measure is expected to take approximately 5 minutes to administer.

## Approach to Data Collection for the Study

Given the geographic dispersion of the Cohort 1 grantees and the uncertainty about the locations of the Cohort 2 grantees, the study team has determined that the best approach for data collection is to hire and train field staff in each grantee site to complete all child assessments for the study. The alternative would be to employ data collectors that currently work for SRC in Virginia (for the evaluation of VPI+, which uses similar measures) and have these data collectors travel to each study site. However, the travel costs are prohibitive for data collectors to travel and stay in hotels in each grantee site every time data is needed. The study team has thus planned to hire and train new field staff locally in each site, but may consider using some of our existing VPI+ field staff for this study if qualified local field staff cannot be found, or if Cohort 2 sites are located close to VPI+ data collectors.

*Recruiting and Hiring Field Staff.* A key element in our data collection model is the selection of local assessment coordinators in each grantee site, who are responsible for managing the on-the-ground process of collecting classroom rosters and consents in participating programs, scheduling the child assessments in each participating program, and conducting the child assessments for that grantee. The local assessment coordinator role provides the opportunity to build strong relationships with participating programs, and helps to ensure that data collection efforts run smoothly and transparently. This role is an important complement to the project manager in every data collection project that we engage in. SRC will hire 1 or 2 assessment coordinators in each grantee site, depending on the availability of the applicants who are best suited to the position. We expect to hire approximately 5 to 7 assessment coordinators in the 2017-18 program year (for the 5 Cohort 1 grantees), and 6 to 8 assessment coordinators in the 2018-19 program year (for the estimated 6 Cohort 2 grantees).

This position requires significant organizational and interpersonal skills, and a familiarity with classroom environments. We hire assessors from a variety of backgrounds within the education and human services fields. We require that applicants possess, at minimum, a college degree and actively seek candidates who possess qualifications such as coursework and experience in teaching young children or conducting child assessments. As an organization deeply committed to cultural competence, we use a lens of cultural responsiveness in every element of our work, and our teams consistently represent a variety of backgrounds, cultures, and languages.

SRC prioritizes the safety and privacy of study participants and the quality of data collected in our studies, and we take great care in recruiting, interviewing, hiring, and training candidates for the position. Our team employs a multistep process for hiring assessment

coordinators. After an application has been reviewed by our project management team, qualified candidates will be invited to an interview with at least two members of our staff. Each candidate is asked about their experience in early childhood education, knowledge of the field, and their experiences with data collection, research, cultural sensitivity and awareness and confidentiality. Sample interview questions include:

- *What knowledge, skills and experience do you consider most important for being an effective data collector with children and teachers in an early childhood environment?*
- *Please offer some examples of a time when you interacted with a child and you came away with a different understanding of the situation than previously thought.*
- *What knowledge, skills and experience do you consider most important as you administer individual assessments to young children?*

After a successful interview, we will contact two references for each applicant, and will proceed toward hiring applicants with positive references. Assessment coordinators will be offered a position on our team once they have completed child assessor training and fidelity test, and have received the following: human subjects training, mandated reporter training, a clear state and/or federal background check, and a negative TB test.

*Training and Reliability of Field Staff.* SRC has a system of training and reliability procedures to ensure that our field staff collect high quality data. For the mixed delivery evaluation, the assessment coordinators will attend a 2-day training conducted by SRC at the beginning of each data collection cycle. During this training, the assessment coordinators are trained to reliably administer all of the tools in the assessment battery, and are also trained on SRC's data collection protocols, strategies for partnering with schools and programs to gather consent forms from parents, SRC's systems for scheduling and reporting data, and strategies for building rapport and working with young children.

In alignment with our organizational values, we maintain a comprehensive performance management process that includes inter-rater reliability checks and data collector protocol review to ensure that performance expectations are always met. After the training, SRC staff will certify the assessment coordinators on the assessment battery by observing and coding a mock assessment. The assessment coordinator must achieve 80% reliability to each of the tools in the battery to be considered ready to go into the field.

In addition, an experienced lead data collector from the VPI+ staff who has conducted child assessments and fidelity checks for SRC for the last two years will perform fidelity checks for this project. This will include observing the assessment coordinators in the field administering the assessment to a child, and to review the fidelity check with the assessment coordinator. The lead data, and our staff (if necessary) will be required to create an action plan for any assessment coordinator that does not achieve at least an 80% on the fidelity

check. The action plan must be completed before the assessor can return into the field to administer child assessments independently.

*Management of Field Staff.* SRC engages in active management of our field staff to ensure successful data collection, by holding weekly check-in calls with assessment coordinators and having the project manager available to answer questions each day. Assessment coordinators will participate in weekly meetings to discuss best practices for conducting child assessments, to review discrepancies, and to resolve differences through in-depth discussion and negotiated consensus, in order to avoid scoring and administration errors. During the weekly meetings, assessment coordinators will share progress on retrieving consents as well as any concerns regarding scheduling or communications with school/program administrators. In addition, the project manager will be on call during the assessment window from 7:00 AM-1:00 PM EST to support the data collection process and respond to questions that arise from our field team and provider staff.

*Protocol Guide:* SRC will develop a detailed assessment protocol guide specific to the mixed delivery evaluation, to provide guidance about our required data collection procedures. The assessment coordinators will receive a copy of the Protocol Guide and will receive training on all parts of this guide. This project-specific protocol is based on our years of experience executing large-scale evaluations, and is used to assist data collectors in preparing for assessments as well as providing guidance for making decisions that may arise. The protocol guide will include:

- A script for data collectors to use to call the provider the day before their visit in order to talk with the teacher/director to inform them of the purpose of their visit;
- Guidance on when a child can be assessed and how to respond to signals from the child on when they need a break from the assessment battery;
- Strategies for keeping children on task during the assessment battery;
- Decision-making rules on administering assessments to children who do not speak English as a first language; and,
- Decision-making rules on when to terminate an assessment due to child frustration or refusal.

## Data Collection Timeline

Data collection will occur in all three years of the evaluation, from fall of 2016 through spring of 2019. Table 1 indicates which types of data will be collected for Cohort 1 grantees and Cohort 2 grantees in each year of the study.

Table 1. Data Collection Timeline

Type of Data	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019
<b>Recruitment and Consent</b>						
Recruitment of Programs		C1		C2		
Family Consent for Study			C1		C2	
<b>Existing Data Requests from State Agencies</b>						
Enrollment and Demographics		C1	C1, C2		C2	
PALS Literacy Scores		C1		C1, C2		C2
Virginia Quality Data		C1		C1, C2		C2
<b>Data Collected for the Study by Grantees</b>						
Program and Classroom Characteristics		C1		C1, C2		C2
Characteristics of Children in Study Sample			C1	C1	C2	C2
Implementation Data Collected by Grantees	C1	C1		C1, C2		C2
<b>Data Collected for the Study by SRC Team</b>						
Grantee Site Visit Focus Groups		C1				
Grantee Telephone Interviews	C1			C2		
Surveys of Instructional Practices				C1		C2
Assessment of Child Development Skills			C1	C1	C2	C2

Note: C1 indicates Cohort 1 grantees, and C2 indicates Cohort 2 grantees.

## Analysis Methods

The study will use a mixed methods approach, combining qualitative and quantitative methods to address each research question. The implementation study will use qualitative methods, while the outcomes study will use quantitative methods. We have drawn upon our team's expertise in research design and methods to select the most appropriate and rigorous methods to address each research question within the logistical and budgetary constraints of the study. Table 2 indicates which data sources are used for each research question, followed by a description of the analysis methods that will be used to address each research question.

Table 2. Data Used to Address Each Research Question

Type of Data	Research Question				
	1	2	3	4	5
<b>Existing Data Requests from State Agencies</b>					
Enrollment and Demographics		X			
PALS Literacy Scores				X	X
Virginia Quality Data			X		
<b>Data Collected for the Study by Grantees</b>					
Program and Classroom Characteristics			X		X
Characteristics of Children in Study Sample				X	X
Extant Implementation Data	X				
<b>Data Collected for the Study by SRC Team</b>					
Grantee Site Visit Focus Groups	X				
Grantee Telephone Interviews	X				
Surveys of Instructional Practices			X		
Assessment of Child Development Skills				X	X

### Implementation Study: Research Question 1

What are the successes and challenges experienced by grantees as they implement the Mixed Delivery Preschool Pilot Program, and what are the lessons and best practices that can be useful for future implementation of mixed delivery preschool?

To address research question 1, the study team will use a qualitative analysis approach to analyze the focus group data from the grantee site visits, the telephone interview data with grantees, and any implementation data collected by grantees. The use of multiple sources of qualitative data (i.e., focus groups, interviews, meeting discussions, grantee reports, and work plans) will allow for triangulation of the data to help corroborate themes and phenomena that arise during the analysis. Triangulation of evidence also helps address problems of construct validity, as multiple sources of data serve as multiple measures of the same construct (Yin, 2009).

To conduct the qualitative analysis, SRC will use a directed content analysis approach (Hsieh and Shannon, 2005), in which the researchers will analyze interview responses using a qualitative coding scheme based on the mixed delivery theory of change that was developed for the evaluation. The study team will develop an *a priori* thematic coding scheme for the qualitative data prior to collection of the data, and will review the coding scheme after collection of the data to determine whether any additional codes should be added before

coding begins. For the coding process, the thematic codes will be applied directly to transcribed qualitative data (such as transcriptions of focus groups, interviews, and meetings) and grantee documents (such as annual reports and work plans). After coding is completed, the researchers will retrieve all qualitative data sources that have been flagged with a specific code in order to conduct a comprehensive and triangulated analysis within each thematic code. SRC's study team members who participated in the qualitative data collection, and who have experience with qualitative research, will conduct the qualitative coding and analysis for the study. The analysis results will inform stakeholders about successful strategies for implementing mixed delivery programs, and successful strategies to address challenges that arise during implementation.

## Outcomes Study: Research Question 2

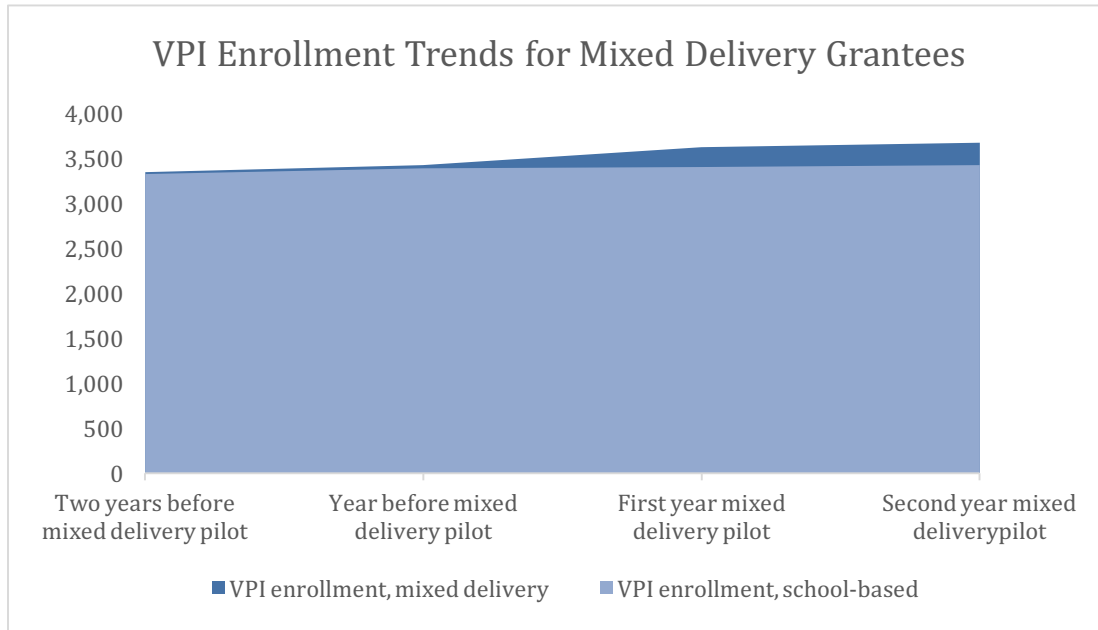
What are the preschool enrollment outcomes in private-sector programs in communities that received Mixed Delivery Preschool Pilot Program grants?

To analyze the preschool enrollment outcomes for mixed delivery grantees, particularly in private-sector programs, the study team will combine enrollment data collected from each grantee to examine enrollment trends by sector over time. Specifically, the study team will examine the number of children in grantee communities that were served in VPI in both public- and private-sector programs, in the two years prior to the mixed delivery grant as well as during the two years of the grant. The study team will examine these data for all children and, if the data are available, for population subgroups defined by race and ethnicity and by gender.

To conduct the analysis, the study team will draw from data provided by VDOE on VPI enrollment in private-sector programs as well as public school programs. The study team will include data from Cohort 1 and Cohort 2, and thus will examine enrollment trends with reference to the start of the mixed delivery pilot rather than by calendar year, to more clearly identify impacts of grant receipt on private-sector enrollment. The analyses will be presented in table format, and also graphically to illustrate the enrollment trends as shown in the example chart with fabricated data (figure 2). The analysis results will be considered in light of findings from other research on mixed delivery enrollment in the VPI+ initiative.



Figure 2. Example Results Chart for Enrollment Analysis, with Fabricated Data



### Outcomes Study: Research Question 3

What are the program quality outcomes in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?

To address research question 3, the study team will descriptively compare program quality outcomes for school-based and mixed delivery classrooms, using existing Virginia Quality data and teacher surveys of instructional practices that will be collected for the study. Using the existing Virginia Quality data, the study team will compare the average Virginia Quality rating level, ERS scores, and CLASS scores for school-based and mixed delivery classrooms. Using data collected for the study, the study team will compare the frequency of desired instructional practices that teachers reported using in school-based and mixed delivery classrooms. The study team expects that there will not be sufficient statistical power to conduct significance tests (such as t tests or chi square tests), so these results will be descriptive in nature.

## Outcomes Study: Research Question 4

What are the language, literacy, numeracy, and self-regulation outcomes of children in mixed delivery and school-based Virginia Preschool Initiative classrooms in communities that received Mixed Delivery Preschool Pilot Program grants?

To address research question 4, the study team will use two separate approaches. First, the study team will descriptively examine trends in child literacy scores among children participating in VPI in grantee communities, using existing PALS data provided by VDOE. Second, the study team will use multiple regression analysis methods to assess whether children participating in VPI mixed delivery classrooms have similar developmental outcomes to children participating in VPI in school-based classrooms, using child assessment and child characteristics data collected for the study.

*Analysis of Trends in Literacy Scores.* To examine trends in literacy scores among children participating in VPI in grantee communities, the study team will descriptively examine average PALS literacy scores in grantee communities in the two years prior to the mixed delivery grant and in the two years of the mixed delivery grants. This analysis is descriptive in nature and will provide information about baseline scores and trends in these districts. If possible, the study team will also examine these trends among children in school-based and mixed delivery classrooms.

*Comparison of Child Developmental Outcomes in School-Based and Mixed Delivery Classrooms.* When examining child outcomes for a program such as mixed delivery preschool, the goal is to make “apple to apple” comparisons representing program outcomes for children with similar characteristics. Random assignment is the gold standard of research design for “apple to apple” comparisons, but this method is not always feasible or practical. When random assignment is not possible, such as in the mixed delivery evaluation, it is important to use statistical techniques to reduce the influence of any differences in child characteristics. For the mixed delivery evaluation, the study team will use statistical techniques to reduce the differences in child characteristics between children who attend the mixed delivery classrooms and the children who attend school-based classrooms, to assess whether children in mixed delivery classrooms experience similar developmental outcomes to children in school-based classrooms.

The study team proposes to use multiple regression analysis methods to examine child outcomes on child literacy, language, numeracy, and self-regulation outcomes in the spring of their preschool year, after controlling for children’s scores on the assessments conducted

in the fall of the preschool year and for child characteristics, including gender, race and ethnicity, if English is the primary language spoken at home, if the child has an IEP or not, mother or guardian's education level, and the child's prior experience with early childhood education. In addition, the study team will account for dosage, or the amount of child participation in preschool, by controlling for program schedule and child attendance rates. The multiple regression analyses will use cluster-robust standard errors to adjust for grouping of children in programs and communities, a statistical technique that helps to account for similarities in children's experiences and other characteristics within each grantee, as these local similarities can introduce bias in the analysis outcomes. With a planned child sample size of 270 children, the study team expects to have adequate statistical power to conduct these regression analyses with cluster-robust standard errors, but these analyses will not have adequate statistical power to conduct more complex multi-level modeling analyses. The multiple regression analysis will inform stakeholders about whether children participating in VPI mixed delivery classrooms have similar developmental outcomes to children participating in VPI in school-based classrooms, in the second year of mixed delivery implementation.

## Outcomes Study: Research Question 5

What role do teacher qualifications play in the child outcomes of the Mixed Delivery Preschool Pilot Program grants?

To address research question 5, the study team will include data on teacher qualifications in the multiple regression analysis examining child developmental outcomes (for research question 4), drawing from child characteristics and child assessment data collected for the study combined with data provided by grantees and participating programs on teacher education level, years of experience, and other qualifications. To examine the role of teacher qualifications in these outcomes, the study team will include statistical interaction terms in the multiple regression analysis models to explore variability in outcomes by teacher qualification levels.

# Dissemination of Results

The evaluation of the mixed delivery pilot will inform VECF, grantees, and other stakeholders about successful strategies for implementing mixed delivery programs, the impact of the mixed delivery pilot on preschool enrollment, program quality outcomes among mixed delivery grantees, child outcomes in mixed delivery classrooms, and the role of teacher qualifications in mixed delivery outcomes.

The study team will collaborate with VECF and grantee partners on dissemination of evaluation findings. SRC will share interim study findings with VECF, grantees, and the state Legislature and Administration during each year of the study, and will engage these partners in discussions about the implications of the findings. The specific subset of findings that will be shared each year will be determined by the data collection timeline (table 1 above).

In summer of 2017, SRC will travel to Virginia to present findings on implementation of the mixed delivery grants in the first year of the study and early findings on outcomes from analyses using extant data only, and SRC will also develop a brief summarizing the early implementation findings. The implementation findings included in the brief will be intended to support Cohort 1 grantees in improving implementation during the second year of their grants and assist Cohort 2 grantees in planning and implementing their grants. The findings included in the brief may also be useful at the national level for other communities that are implementing mixed delivery preschool systems.

In late summer of 2018, SRC will again travel to Virginia to present interim findings on program and child outcomes using data collected for the study from Cohort 1 grantees, and also extant data collected from grantees in both cohorts. The findings using data collected for the study will be tentative, as they will not include data for Cohort 2 grantees and thus many of the analyses will have a small sample size that would not adequately support interpretation of the results.

In the late summer or early fall of 2019, SRC will travel to Virginia to present the full set of study findings on implementation and on program and child outcomes. SRC will develop a final report summarizing the analysis results and implications for all five research questions, and also will develop a user-friendly brief or infographic with the main takeaways from the study. The study team will also work with VECF to plan broader dissemination of the findings.

## Work plan

The work plan identifies the tasks that will be completed in order to carry out the research plan, and the timeline for each task. The work plan for the mixed delivery evaluation includes six broad tasks, including Start-Up Activities, Project Management & Communication, Implementation Study Data Collection, Outcomes Study Data Collection,



Analysis, and Reporting & Dissemination. Table 3 lists specific activities that will be completed as part of each task, and provides the timeline for these tasks and activities.

**Table 3. Timeline for Study Tasks, by Quarter for Each Year of the Evaluation**

<b>Task</b>	<b>Q4 16</b>	<b>Q1 17</b>	<b>Q2 17</b>	<b>Q3 17</b>	<b>Q4 17</b>	<b>Q1 18</b>	<b>Q2 18</b>	<b>Q3 18</b>	<b>Q4 18</b>	<b>Q1 19</b>	<b>Q2 19</b>	<b>Q3</b>
<b>Task 1: Start-up Activities</b>												
Kick-off Meeting	X											
Grantee Meeting	X											
Grantee Telephone Interviews	X											
Develop Research Plan	X											
Webinar for Grantee Partners	X											
<b>Task 2: Project Management &amp; Communication</b>												
Internal Team Meetings	X	X	X	X	X	X	X	X	X	X	X	X
Meetings with VECF	X	X	X	X	X	X	X	X	X	X	X	X
Study Agreements with State Agencies and Divisions		X	X	X								
IRB Approval		X										
Monthly Reporting to VECF		X	X	X	X	X	X	X	X	X	X	X
Quarterly Newsletters to Grantees		X	X	X	X	X	X	X	X	X	X	X
<b>Task 3: Implementation Study Data Collection</b>												
Site Visits			X									
Request Implementation Data Collected by Grantees				X				X				X
Telephone Interviews	X						X					
<b>Task 4: Outcomes Study Data Collection</b>												
Collecting Existing Data from State Agencies				X	X			X	X			X
Request Data Collected by Grantees				X				X				X
Recruitment and Engagement of Preschool Programs		X		X								
Parent Consent				X				X				
Hire & Train Data Collectors				X				X				
Fidelity (Lead Data Collector)				X	X			X	X			
Conduct Child Assessments				X	X		X	X	X		X	
Quality Surveys							X				X	
Manage Data				X	X	X	X	X	X	X	X	X
<b>Task 5: Analysis</b>												
Implementation Analysis			X	X			X	X				X
Outcomes Analysis				X	X			X	X			X
<b>Task 6: Reporting &amp; Dissemination</b>												
Findings Briefs and Infographics				X								X
Meetings with Stakeholders to Share Findings				X				X				X
Final Report												X

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