

FY2017-18 & FY2018-19

STATE-FUNDED FULL-DAY 4K

Annual Report

With contributions from:

*University of South Carolina, College of
Education and RAND Corporation*



**SC EDUCATION
OVERSIGHT COMMITTEE**

PO Box 11867 | 502 Brown Building | Columbia SC 29211 | WWW.EOC.SC.GOV

**Evaluation of State-Funded Full-Day 4K
for Fiscal Year 2017-18 and 2018-19
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RAND Corporation:

Anamarie Auger Whitaker
Mark Barrett
Celia Gomez
Lynn Karoly

SC Department of Education:

Wendy Burgess
Ginger Catoe
David Mathis
Taylor Seale
Nancy Williams

SC Department of Social Services:

Libby Chapman
Cathy Kovacs
Noelle McInerney

SC Head Start Collaboration Office:

Mary Lynne Diggs

SC Office of First Steps:

Mark Barnes
Georgia Mjartan
Martha Strickland
Dan Wuori

University of South Carolina, College of Education:

Bill Brown
Christine DiStefano
Fred Greer
Jin Liu

Executive Summary

The General Assembly first created and funded the Child Development Education Pilot Program by a budget proviso in Fiscal Year 2006-07. In 2014 the General Assembly codified the program in Act 284 and renamed it the South Carolina Child Early Reading Development and Education Program. For purposes of this report, the program is referred to as CERDEP or state-funded full-day four-year-old kindergarten. CERDEP provides full-day early childhood education for at-risk children who are four years of age by September 1. In school year 2017-18, eligibility is defined as an annual family income of 185 percent or less of the federal poverty guidelines as promulgated annually by the U.S. Department of Health and Human Services, or Medicaid eligibility. Both public schools and non-public childcare centers licensed by the South Carolina Department of Social Services (DSS) may participate in the program and serve eligible children. The South Carolina Department of Education (SCDE) oversees implementation of CERDEP in public schools and South Carolina Office of First Steps to School Readiness (First Steps) oversees implementation in non-public childcare settings, including private childcare centers and faith-based settings.

Scope of the CERDEP Report

Over time, the General Assembly has tasked the Education Oversight Committee (EOC) with an annual evaluation of CERDEP and has asked recurring questions every year, and occasionally has requested additional information about various aspects of CERDEP. In response, the EOC undertakes its annual evaluation with a strong focus on programmatic results, quality and growth in CERDEP and participation rates for at-risk four-year-old children. For this evaluation, the EOC partnered with RAND Corporation to address also the per pupil cost of CERDEP and how teacher qualifications and professional development affect student readiness and program quality. RAND's services were procured through a formal request for proposal process managed by the State Procurement Office. Due to time constraints and some data challenges, teacher qualifications and professional development will be included in a subsequent report released later this calendar year. This report addresses the following questions:

- Does CERDEP affect young children's learning and their readiness for kindergarten?
- What are the costs of CERDEP program components, and what is the estimated per pupil cost of CERDEP?
- Is CERDEP expanding statewide? Are formal early childhood education programs serving more four-year-olds living in poverty?

Structure of the CERDEP Report

In response to ongoing questions about the cost of implementing CERDEP within school districts and non-public providers, the EOC took a different approach to provide a more expansive review of the CERDEP program. The EOC maintained its partnership with University of South Carolina's College of Education, and this year, the EOC also partnered with the RAND Corporation. USC continues to work with the EOC and provides student assessment analysis for state-funded four-year-old and five-year-old kindergarten. The results of 2017-18 state-funded 4K assessments follow in Section II. RAND Corporation also provides an initial analysis of the per pupil cost of CERDEP, and their analysis is included in Section IV. RAND's cost analysis estimates a

comprehensive per pupil cost that accounts for additional expenses, such as occupancy costs and teacher salary differentials, that are not fully captured in the 2017-18 per pupil reimbursement rate for instruction cost and transportation rates.

EOC staff continue to work with other state agencies and provides (1) final 2017-18 CERDEP Program Results in Section I and (2) preliminary 2018-19 CERDEP Program Results in Section III. In a subsequent report, the EOC will also provide the results of RAND’s study of the role of 4K teacher qualifications and professional development in the implementation of CERDEP as a program and effect on 4K students.

Statewide Progress in Four-Year-Olds in Poverty Participating in 4K

In 2017-18, over 36,000 four-year-olds, or 61 percent of all four-year-olds in our state, lived in poverty. Over 17,000 of these children participated in either CERDEP or Head Start; therefore, at a minimum, **48** percent of four-year-olds in poverty in South Carolina received a full-day, publicly funded, education program. The EOC documents that another 7,901 four-year-olds in poverty received either full or half-day early education programs offered by: local school districts who were not eligible to participate in CERDEP or who chose not to participate; and non-public centers operating in non-CERDEP districts for which the child’s district of residence could not be determined. With these additional children in poverty served in either a full or half-day education program, approximately **70** percent of four-year-olds in poverty received some, publicly funded educational program. An additional 5,633 children participated in the ABC Voucher program.

Summary of Four-Year-Olds in Poverty Served Statewide, FY 2017-18

	2017-18
Public CERDEP Enrollment	9,789
Non-public CERDEP Enrollment	1,778
Total CERDEP Enrollment	11,567
Total Head Start Enrollment	5,589
Estimated Number of Four-Year-Olds Served by CERDEP or Head Start	17,156
Estimated Number of Four-Year-Olds in Poverty	36,018
Estimated Percentage of Four-Year-Olds in Poverty Served by CERDEP or Head Start	47.6%
Estimated Percentage of Four-Year-Olds in Poverty Not Served by CERDEP or Head Start	52.4%
Four-Year-Olds in Poverty in Non-CERDEP Public 4K	7,592
Four-Year-Old Children served in Non-Public CERDEP in a center operating in a non-CERDEP district	309
Total Number of Four-Year-Olds in Poverty in Formal 4K (CERDEP, Head Start, and Non-CERDEP Public 4K)	25,057
Estimated Percentage of Four-Year-Olds in Poverty Served	69.6%
Total SC Vouchers Provided	5,633 ¹

¹ Child care voucher data are not included in the estimated number of four-year-olds served because it may include children who receive 4K services through another resource, such as CERDEP or Head Start.

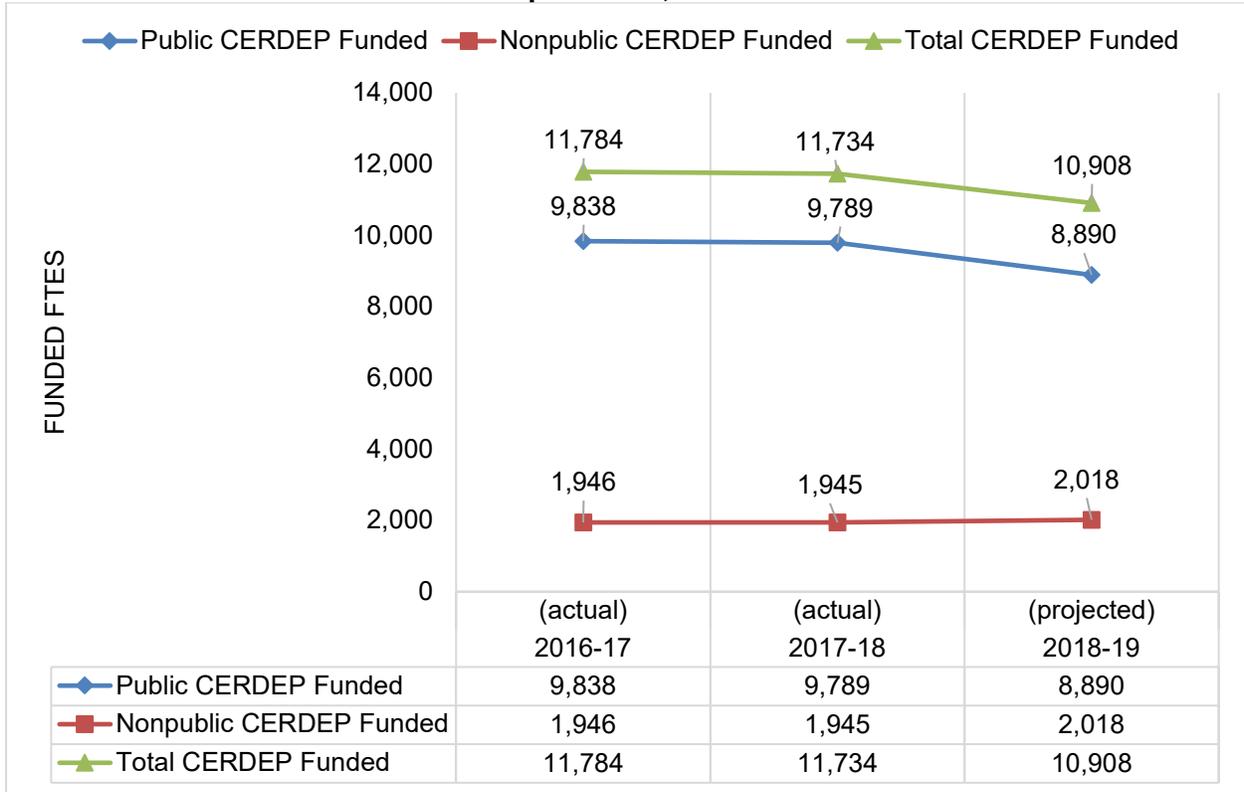
CERDEP Program Update

Chart 1 shows that over the past three years, overall CERDEP enrollment, as defined as the number of children reimbursed at the maximum reimbursable rate, is declining.

For the 2016-17 and 2017-18 school years, CERDEP districts and non-public providers were reimbursed for 11,784 and 11,734 students, respectively. For the 2018-19 school year, the EOC projects that enrollment in the public schools may decrease to 8,890 students based on the 45-day Student Count and an attrition rate of 8.4 percent. The attrition rate recognizes that between the 45-day Student Count and the end of the school year approximately 8.4 percent of children enrolled in CERDEP in public schools have historically left the program. Enrollment in non-public CERDEP is projected to increase by 73 students, which is based on First Steps' projected budget for instructional expenditures. First Steps anticipates funding 2,018 students at the maximum reimbursement rate. This budget figure appears to consider an attrition rate of 11.3 percent for non-public providers and a continuous student enrollment count from August 20 through December 1, 2018 of 2,915. If the projections for 2018-19 are accurate and 10,908 children served by CERDEP will be reimbursed at \$4,510, then over the past three years, student enrollment will decrease by 7 percent.

Chart 1

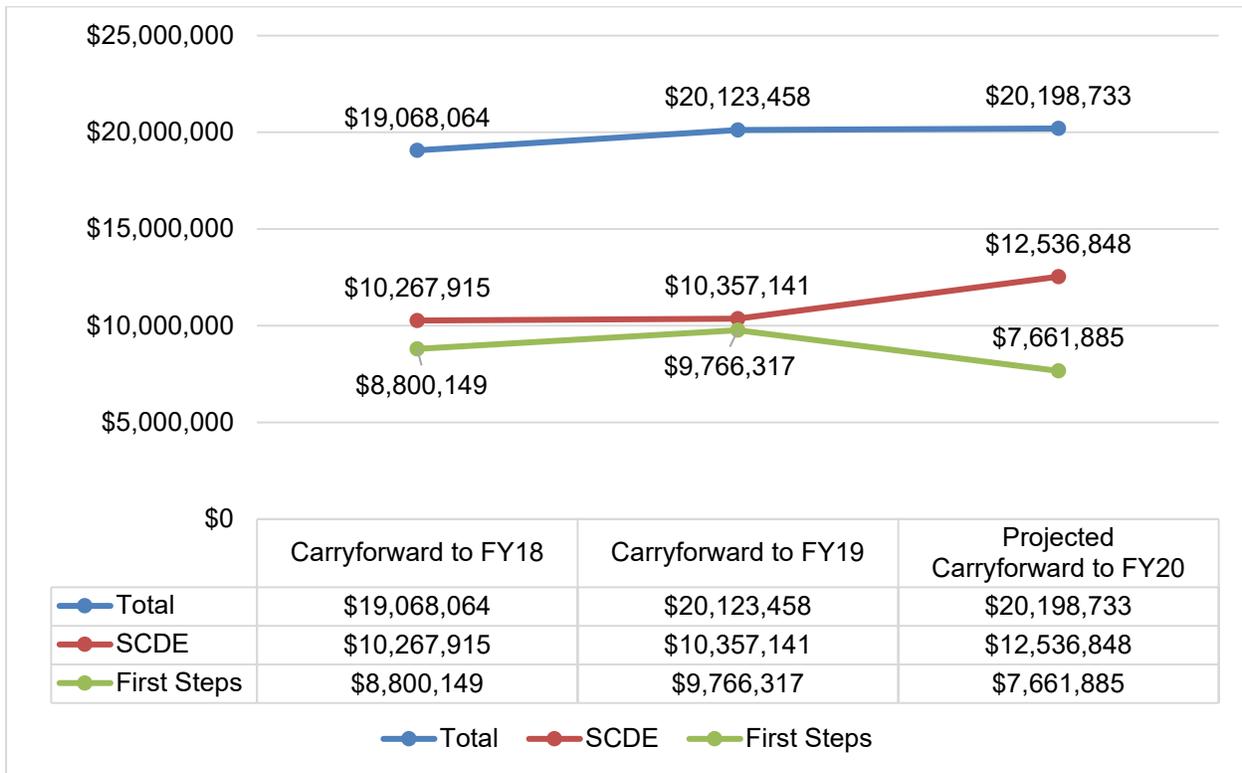
CERDEP Full-Time Equivalents, 2016-2019 School Years²



CERDEP carry forward amounts are provided in Chart 2. Over the past three fiscal years, carry forwards have increased by approximately \$1.1 million despite expansions to fund longer school days or school calendars and to provide summer programs for four-year-olds served in CERDEP. The carry forward from FY2018-19 to FY2019-20 is projected to be \$20.2 million.

² “Full-time equivalent” (FTE) is determined by dividing the total amount of funds expended for instructional funds by the per child maximum reimbursable rate for CERDEP (\$4,510 for FY 2018-19, \$4,422 for FY 2017-18, and \$4,323 for 2016-17).

Chart 2
CERDEP Carryforward Amounts, Fiscal Years 2018-2020



Findings and Recommendations: 2017-18 CERDEP

Finding 1: Additional CERDEP classrooms were added during the 2017-18 school year, but the actual number of children (full-time equivalent) funded decreased from the 2016-17 school year.³

- SCDE reported 25 classrooms and three schools were added during the 2017-18 school year. However, based on SCDE program financial data districts were reimbursed for 9,789 students, a slight decrease in district reimbursement of 9,838 students during the 2016-17 school year.
- Similarly, First Steps reports there were 24 new providers and 28 new classrooms in FY 2017-18; however, First Steps’ financial data indicate providers were reimbursed for 1,945 students, which is approximately the same number funded in 2016-17.
- Approximately, 83 percent of children were served in public schools and 17 percent in non-public centers. A total of 11,734 children (full-time equivalents) were funded in CERDEP in public and non-public settings. A total of \$63 million was expended for the

³ A full-time equivalent is determined by dividing the total number of funds expended for instructional services by \$4,422, the per child maximum reimbursable rate. Annual instructional services expenditures were provided by SC Department of Education and SC State Office of First Steps.

program and over \$20 million carried forward from FY 2017-18 to FY 2018-19. Total expenditures are approximately \$7 million higher than in FY 2016-17 yet carry forward funds are also higher in FY 2017-18.

Finding 2: Based on SCDE financial data detailing payments to districts, Appendix A shows CERDEP districts were reimbursed for 9,789 students. Appendix B reports 10,733 students were administered a 4K assessment twice during the school year, at the beginning and end of the school year. These two data sources represent a variance of 902 students, totaling \$3,986,644.⁴ The variance may be due to students who do not participate in CERDEP after the second (end of year) administration of the 4K assessment.

- In Appendix B, no withdrawal date is included in the data, so it is possible a student withdrew or stopped participating in 4K after the second assessment was administered. There are no state guidelines or requirements that require a specific time during which the second assessment must be administered. Appendix C provides a breakdown by district and school of the number of students assessed twice during the 2017-18 school year.
 - Recommendation 1: SCDE and First Steps should determine a period during which the second assessment should be administered to ensure students who are administered a second assessment may be enrolled for the length of the school year.

Finding 3: Approximately 936 children were on district waiting lists in 2016-17, with 189 in Aiken and 100 in Richland 1. These two districts accounted for 30 percent of the children statewide on waiting lists. In 2017-18, based on SCDE's September 2018 data response, there were 148 children on waiting lists, representing a decrease of 84 percent from 2016-17 to 2017-18.

- Recommendation 2: SCDE and First Steps should continue to share waiting lists to ensure all CERDEP-eligible students are enrolled in available slots. Organizations that enroll and serve at-risk four-year-olds (including Head Start, SCDE and First Steps) should also be included. Formal coordination of waiting lists would also increase the number of at-risk children served statewide, which is significant because the number of at-risk children served statewide is estimated to have decreased in 2017-18. However, as of August 2018, First Steps reported no public school CERDEP waitlists for the 2018-19 school year had been provided.

Finding 4: Since both SCDE and First Steps manage CERDEP as separate programs, the expansion initiative in both public and non-public environments was also implemented as separate initiatives by SCDE and First Steps. This disconnected implementation resulted in inconsistencies in the amount of additional CERDEP instruction and reimbursement rates provided by public schools and non-public providers.

- For example, a summer school option lengthened total days of services to 220 days and expanded the summer schedule to eight hours daily. Non-public providers were reimbursed \$24.57 for each day during the traditional school year of 180 days. For the additional 40 days during summer, non-public providers were reimbursed \$32.13. 114 non-public providers operated 124 summer school classes serving 1,258 four-year-olds.

⁴ \$4,422 per pupil multiplied by 902 students.

- However, SCDE’s November estimates assumed ten weeks of instruction and up to 8.5 hours per day. Districts were reimbursed at the same rate as for the extended year: \$24.56 (for a 6.5-hour day) to \$34.02 (for an 8.5 hour day) per child. A complete school year with the addition of a summer program could equal up to 230 instructional days. During the 2017-18 summer, 32 districts operated summer school programs for four-year-old children.
 - Recommendation 3: Like the need for additional collaboration and coordination on the student waiting lists, SCDE and First Steps should work together to determine consistent implementation of CERDEP expansion, regardless of the CERDEP environment in which it is implemented.

Finding 5: Students who participate in a CERDEP expansion initiative are not identified at the student level. Student-level identification was not required in Proviso 1.72. Without student-level identification, it is not possible to evaluate the effectiveness of expansion, as measured by student-level performance on the Kindergarten Readiness Assessment.

- Recommendation 4: SCDE and First Steps should develop and implement a student-level identification system so the academic performance of students who participate in CERDEP expansion initiatives may be analyzed over time. This information should be provided to districts, so they can assess the impact of expansion on their students’ kindergarten readiness and academic performance in later grades and reported to the EOC as part of their annual CERDEP evaluation.

Finding 6: The estimated size of four-year-olds living in poverty increased slightly from 35,182 in 2016-17 to 36,018 in 2017-18. Approximately 48 percent of four-year-olds living in poverty were enrolled in CERDEP or Head Start, full-time early education programs. If student enrollment in First Steps CERDEP classrooms located in non-eligible CERDEP districts and in public schools that do not participate in CERDEP are included in the statewide calculation, approximately 70 percent of four-year-olds living in the poverty were served by a formal publicly-funded four-year-old program but the program may have been full or half-day. This estimate does not include four-year-olds receiving child care vouchers.

- Head Start enrollment increased from by 27 percent, from 4,395 children in the May 2017 Head Start Census to 5,589 children in the May 2018 census.
- The number of four-year-olds receiving child care vouchers more than tripled during the 2017-18 school year. This data are not included in the number of children in poverty participating in 4K services because children may be enrolled in a 4K program and also receive an SC Voucher for child care before or after normal school hours, artificially inflating the number of students participating in 4K programs.
- Almost 9,800 four-year-old children also participated in other state-funded four-year-old programs that are not part of CERDEP. However, data about these programs are not collected at the state level, so there is no process to understand program characteristics and demographics, such as length of the school day and/or student eligibility requirements for the programs.
 - Recommendation 5: CERDEP guidelines for reporting student enrollment should be implemented for all programs and services for four-year-old children.

As noted in last year's evaluation, student, program and financial data regarding all public 4K programs should be collected and reported at the state level, since only evaluating CERDEP classrooms does not fully account for half of the state's at-risk four-year-old population and the instruction and services they may receive through locally-funded or EIA-funded programs. SCDE should implement uniform data collection procedures for all publicly-funded 4K programs, including those funded by local school districts and the Education Improvement Act. Without a uniform data collection procedure, 4K instruction and services in districts that do not participate in CERDEP are not captured. It is difficult to calculate an accurate estimate of the State's progress in serving all four-year-olds in poverty.

- Recommendation 6: To increase 4K participation across all publicly-funded programs, coordinated enrollment initiatives should be implemented with SCDE, First Steps and Head Start to ensure the maximum number of eligible four-year-olds are enrolled. Where possible enrollment of four-year-olds in district-administered 4K instruction funded by local or EIA funding should also be included. As noted earlier, sharing waitlists across multiple 4K settings may facilitate increased enrollment.
- Finding 7: First Steps CERDEP student enrollment data did not include the district of residence. Therefore, Appendix F includes First Steps CERDEP student enrollment data for districts that are eligible to participate in CERDEP in the calculation of students receiving services. However, 309 First Steps CERDEP students are not included in the calculation because they are enrolled in a First Steps CERDEP class in a district that is not eligible for CERDEP and the district of residence for these students could not be determined.
 - Recommendation 7: First Steps student enrollment data should include the student's district of residence. Inclusion of district of residence would improve the accuracy of the number of CERDEP students served as indicated by their district of residence.

2017-18 4K Assessment Results: IGDIs-EL Findings

Finding 8: As noted in Table 16, teachers administered IGDIs EL to approximately 8,000 prekindergartners in fall 2017 and spring 2018.

Finding 9: Five areas were assessed: 1. Picture Naming, 2. Rhyming, 3. Sound Identification, 4. "Which One Doesn't Belong?" and 5. Alliteration.

Finding 10: When using the combined Strong Progress and Moderate Progress categories, the overwhelming proportion of prekindergartners generally met publisher's spring expected scores on subtests: 1. Picture Naming (90 percent), 2. Rhyming (74 percent), 3. Sound Identification (80 percent), 4. "Which One Doesn't Belong?" (89 percent), and 5. Alliteration (94 percent).

Finding 11: On the spring 2018 assessment, African American and White prekindergartners had similar proportions on most IGDIs-EL subtests. The Rhyming subtest was the exception, with African American children scoring 8 percent lower than White children.

Finding 12: On the spring 2018 assessments, Hispanic children had lower proportions than African American and White prekindergartners on two subtests. With the Picture Naming subtest proportion Hispanic were 19 percent lower than African American and 23 percent below White

prekindergartners. For the Rhyming subtests Hispanic percentages were lower by 11 percent compared to African American and with 19 percent with White children.

Finding 13: Except for Sound Identification, CERDEP and Non-CERDEP students had similar fall and spring assessment results. The Spring testing of Sound Identification exhibited the largest difference in which Non-CERDEP exceeded CERDEP children by a proportion of 6 percent.

Finding 14: Table 19 showed improvements over time for four of the five IGDIs-EL subtests: Picture Naming, Rhyming, Picture Identification, and “Which One Doesn’t Belong?”

Finding 15: Longitudinal results shown in Table 20 a slight increase from spring 2016 to spring 2018 by race. An exception is Hispanic students, who increased by 9 percent on Picture Naming and by 7 percent on Rhyming over the three-year period.

Finding 16: CERDEP and Non-CERDEP students showed slight improvement over the 2016 to 2018 period. Scores were similar between the two groups.

2017-18 4K Assessment Results: PALS-PreK Findings

Finding 17: As noted in Table 22, teachers administered PALS-PreK to nearly 11,000 prekindergartners in fall 2017 and about 10,500 prekindergartners in spring 2018.

Finding 18: When using the combined Exceed Expected Range and Within Expected Range categories, the overwhelming proportion of prekindergartners generally met publishers’ spring expected scores on subtests: 1. Name Writing (92 percent), 2. Alphabet-Upper Case (86 percent), 3. Alphabet-Lower Case (88 percent), 4. Letter Sounds (88 percent), 5. Beginning Sound Awareness (87 percent), 6. Print and Word Awareness (83 percent), 7. Rhyme Awareness (81 percent), and 8. Nursery Rhyme Awareness (87 percent).

Finding 19: For the PALS-PreK by ethnicity African American and White preschoolers had similar proportions of proficiency, excepting Rhyme Awareness, with Whites scoring 9 percent higher.

Finding 20: On the spring 2018 assessments, Hispanic children had lower proficient proportions than African American and White prekindergartners all but one subtest: Name Writing. The proportion of Hispanic children was most discrepant from other groups on the Nursery Rhyme Awareness subtest (13 percent lower than African Americans and 15 percent lower than Whites).

Finding 21: Prekindergartners in CERDEP and Non-CERDEP school districts had very similar proportions in spring 2018, with proficiency rates \geq 80 percent on all subscales.

Finding 22: Longitudinal PALS-PreK scores were stable across the 2016 to 2018 spring testing for all prekindergarten students.

Finding 23: Scores of PALS-PreK subtests by ethnicity and CERDEP status were stable, with students in the proficient range varying little across time.

2017-18 4K Assessment Results: B3-GOLD Findings

Finding 24: Teachers administered B3-GOLD to approximately 6,900 4K students in fall 2017 and 6,700 4K students in spring 2018. All non-public (First Steps) and some public school 4K students were assessed with B3-GOLD.

Finding 25: Most students scored proficient in the spring, 87 percent on Language and 94 percent on Literacy subtests. The sum of “meet” and “exceed” categories equals the “proficient” category.

Finding 26: On the spring 2018 assessment, all ethnic groupings scored comparably on the Language and Literacy subtests.

Finding 27: Students in Non-CERDEP and CERDEP programs also scored comparably on the Language and Literacy subtests.

Finding 28: CERDEP students in non-public (First Steps) and public classrooms scored comparably on the Language and Literacy subtests.

Finding 29: Because B3-GOLD is a new instrument, it is inappropriate to conduct longitudinal comparison with prior years' TS GOLD results.

Summary of 4K Assessment Findings

Finding 30: Overall, most 4K students met assessment benchmarks in the spring of 2018. Table 33 summarizes the following findings:

- IGDIs-EL:
 - 74 percent of students showed proficient progress on Rhyming, and 94 percent showed proficient progress on Alliteration.
 - The greatest ethnicity gaps were in Rhyming. Hispanic children scored lower than African American children by 11 percent and lower than White children by 19 percent. African American children scored 8 percent lower than White children in Rhyming.
 - CERDEP and Non-CERDEP students scored similarly in all areas.
 - From spring 2016 to spring 2018 there were slight increases in proficiency for four of the five IGDIs-EL subtests: Picture Naming, Rhyming, Picture Identification, and “Which One Doesn’t Belong?” By ethnicity, Hispanic students made the greatest gains, increasing by 9 percent on Picture Naming and by 7 percent on Rhyming over the three-year period. CERDEP and Non-CERDEP scores were similar between the two groups, showing slight increases.
- PALS-PreK:
 - High levels of students achieving proficiency, scoring 81 percent or higher on all tasks.
 - African American and White children scored similarly on most PALS-PreK; the one exception was Rhyme Awareness (9 percent lower). There were three PALS-PreK scales on which Hispanic students reported lower proficiency rates than other ethnicity groupings: Nursery Rhyme Awareness (12 percent lower than African Americans, 15 percent than Whites). Hispanic children scored lower than White children on two subtests: Print and Word Awareness (12 percent lower) and Rhyme Awareness (13 percent lower); scores were similar to African American children on these subscales.
 - CERDEP and Non-CERDEP students scored similarly.
 - Longitudinal PALS-PreK scores were stable across the 2016 to 2018 spring testing for all prekindergarten students. Scores of PALS-PreK subtests by ethnicity and CERDEP status were stable, with students in the proficient range varying little across time.
- B3- GOLD:
 - Overall, students scored proficient 87 percent on Language and 94 percent on Literacy.
 - All ethnic groups scored similarly on B3-GOLD subscales.
 - CERDEP and Non-CERDEP students received similar scores.

Findings and Recommendations: 2018-19 CERDEP

Finding 31: There is a slight increase in the total number of CERDEP classrooms in 2018-19, but the number of CERDEP students projected to be funded as full-time equivalents is projected to decline from 2017-18 to 2018-19.

- There were 11,734 full-time equivalents in 2017-18. The number of full-time equivalents funded during the current 2018-19 school year is expected to decrease to approximately 10,908 students: 8,890 projected full-time equivalents in public CERDEP and 2,018 budgeted full-time equivalents in non-public CERDEP.

Finding 32: Due to the projected decrease in the number of full-time equivalents in 2018-19, projected carry forward to 2019-20 may reach almost \$20.2 million, instead of the \$14.9 million carry forward that is budgeted by SCDE and First Steps.

- SCDE's projected carry forward is \$5,274,195 more than the amount SCDE has initially budgeted. The projected carry forward does not include an estimate of the cost of SCDE's plans to expend the carry forward. SCDE provided a narrative plan to expend carry forward, but expenditure amounts were not provided.
- Recommendation 8: SCDE and First Steps should consider prior years' attrition rates when developing future budgets and program plans. Analyzing attrition rates and including them in the CERDEP budgeting process may result in more realistic estimates of expenditures (instructional costs, classroom costs) and future carry forward amounts.

Key Findings Cost Ingredients and Sources of Cost Variation

- Delivery of CERDEP requires expenditures in multiple categories including costs for personnel, classroom materials and other instructional supports, food service, transportation, occupancy, and program administration.
- Key sources of variation in program cost structure include staff compensation levels, whether transportation services are provided, and whether the program pays rental costs (or the equivalent).

Per-Pupil Costs and Variation by Provider Context

- Based on our baseline cost model, the estimated all-inclusive annual per-pupil cost for the traditional CERDEP option (180-day school year at 6.5 hours per day, 20 pupils per classroom, state median salaries and benefits), when delivered at a site operated by a public school district, with transportation costs and rent, was about \$11,000 in 2017 dollars (or just over \$10,000 per pupil if there are no rental costs for the public site).
- The estimated per-pupil cost was almost identical for a private center-based program, with the same program features (including teacher qualifications) and parity with public school salaries and fringe benefits.
- When the private program is assumed to pay the lower wages and benefits consistent with other private child care programs, the estimated per-pupil cost falls to about \$7,000. The \$4,000 per pupil difference is entirely attributable to the public-private compensation differential.
- Assuming a CERDEP program is delivered in a higher-cost area (approximately the 75th percentile of salaries in the state), estimated per-pupil costs were about 18 percent higher. In a lower-cost area (the 25th percentile of salaries in the state), per-pupil costs were about 11 to 14 percent lower. The difference in per-pupil costs between lower- and higher-cost communities was \$2,000 to \$3,500 depending on the provider context.
- The differences attributable to program scale were small, given the model's assumptions. In contrast, costs were up to 10 percent higher and up to 27 percent higher when the class size fell to 18 pupils per classroom or to 20 pupils per classroom, respectively. This may occur if providers intentionally seek to lower class size, or it may reflect underenrollment.

CERDEP Cost Versus Reimbursement

- With the 2017–2018 CERDEP instructional reimbursement rate of \$4,422 per pupil for the traditional CERDEP option (the program variant we model), coupled with CERDEP transportation reimbursement (private centers only) and subsidized food costs, the total reimbursement per pupil falls short of provider costs by as much as 50 percent. The same is true for the hourly and daily reimbursement rates that apply for extended-day or extended-year options,
- The reimbursement gap is larger when compensation in private centers is equivalent to public school salaries and benefits, for providers in higher cost areas, and for providers that operate with a lower class size.

Given a CERDEP per-pupil reimbursement rate which is the same regardless of provider context, the size of the differential between per-pupil cost and reimbursement will vary substantially across CERDEP providers based on their compensation schedule, geographic locale, class size, and other features that drive per-pupil costs.

Recommendations

This discussion has raised a number of policy issues regarding reimbursement of per-pupil costs for CERDEP providers. Many of these issues inherently involve tradeoffs that must be considered as part of a policymaking process. We therefore recommend a series of action steps for CERDEP stakeholders in South Carolina to take in support of a deliberate process to determine the potential costs and benefits of modifying the current CERDEP reimbursement mechanism.

<p>Recommendation 1. Convene CERDEP stakeholders to recognize the variation in CERDEP costs and identify options for an adequate and equitable reimbursement policy.</p>

The SCDE and First Steps should hold one or more convenings with all CERDEP stakeholders—public and private providers, the Education Oversight Committee (EOC), and other relevant parties—to recognize the considerable variation in the estimated total per-pupil cost of delivering CERDEP and the potential strategies for instituting a reimbursement policy that incentivizes quality and ensures an adequate and more equitable reimbursement of provider costs. The discussions should focus on the policy considerations referenced in the last section, such as which sources of cost variation should be incorporated in the reimbursement schedule, what the expectations are for the state’s share of CERDEP costs and how providers will fill any gap, and whether there is support for moving toward compensation parity for CERDEP teachers in public and private settings.

Recommendation 2. Conduct an analysis of the effects of changes in the reimbursement mechanism on the funding required with no change in enrollment.

Guided by the discussions from the first recommendation, EOC should undertake an analysis of the implications of changes in the reimbursement mechanism for state funding of CERDEP with no change in enrollment. If a more-complex reimbursement approach is required, consider options to minimize administrative complexity, such as the use of existing formulas for K–12 funding to adjust for geographic differences in prices. Direct contracts with providers should be considered, as well. Similar to the approach taken in the National Academies report on *Transforming of the Financing of Early Care and Education*, it may be most feasible to phase in a new reimbursement structure over multiple years or gradually across districts, given the increase in funding that would be likely be required.

Recommendation 3. Provide technical assistance to CERDEP providers to ensure they access other sources of funding to cover their costs.

To the extent that private providers, in particular, will be expected to cover a portion of their costs from other public or private sources, First Steps should offer technical assistance to providers to ensure those funds are accessed to the maximum extent possible. For example, our set of illustrative providers suggests that some private centers may not access all sources of reimbursement, such as CACFP, for which they qualify. They also may not always fully claim all available CERDEP reimbursement (e.g., extended day or summer). Technical assistance would be a valuable resource for private centers (and perhaps school districts) to support the financial viability of CERDEP providers and stable participation in the program. Together, SCDE and First Steps could collaborate on an integrated plan for providing technical assistance and consistent implementation of the support for both public and private CERDEP providers.

Recommendation 4. Collect information on provider costs and refine model-based cost estimates to support the redesign of reimbursement policy.

Drawing on in-house capacity or external expertise, SCDE, First Steps, and EOC should continue to collect information on provider costs and refine model-based cost estimates as reimbursement policies are redesigned. The validity of any reimbursement mechanism depends on the extent to which it is grounded in real-world information about how providers implement the program and the associated cost structure. An evidenced-based approach will encourage buy-in on the part of CERDEP providers and other stakeholders, as well as support from families with children and the public more generally. Likewise, information collected from providers should be periodically updated to account for changes in program delivery and the associated implications for costs.

Recommendation 5. Review alignment between CERDEP’s reimbursement rates and those for other publicly funded early childhood programs in the state.

SCDE, First Steps, EOC and other state leaders should review the reimbursement rates for CERDEP and compare them with those of the other publicly funded early childhood programs in South Carolina that apply to 4K. This comparison is particularly relevant for private center-based CERDEP providers, as they also qualify to serve four-year-old children eligible for SC Vouchers. The review would determine the consequences of any current differences in the reimbursement rates across provider types, and assess the potential consequences in terms of participation in the subsidized program. If changes are made in the future to the reimbursement rates for CERDEP, the consequences for the difference in the reimbursement rates with SC Vouchers or any other relevant subsidized 4K program should be taken into account.

Introduction

January 15, 2019

The following is a report from the Education Oversight Committee pursuant to Provisos 1.58 and 1A.29 of the 2018-19 General Appropriation Act.

The General Assembly created and funded the Child Development Education Pilot Program beginning by a budget proviso in Fiscal Year 2006-07. In 2014 the General Assembly codified the program in Act 284 and renamed it the South Carolina Child Early Reading Development and Education Program. For purposes of this report, the program is referred to as CERDEP or state-funded full-day four-year-old kindergarten (4K). CERDEP provides full-day early childhood education for at-risk children who are four-year-olds by September 1. Both public schools and non-public childcare centers licensed by the South Carolina Department of Social Services (DSS) may participate in the program and serve eligible children. The South Carolina Department of Education (SCDE) oversees implementation of CERDEP in public schools and South Carolina Office of First Steps to School Readiness (First Steps) oversees implementation in non-public childcare settings.

Between school years 2006-07 and 2012-13, CERDEP services targeted eligible children residing in the plaintiff and trial districts in the Abbeville equity lawsuit, Abbeville County School District et. al. vs. South Carolina. In Fiscal Year 2013-14, the General Assembly expanded the program to include children who met the same age and socioeconomic criteria and who resided in a district with a poverty index of 75 percent or more. The poverty index was a measure of the percentage of students who are eligible for the free or reduced-price federal lunch program and/or Medicaid. The expansion included 17 eligible school districts that were not original trial and plaintiff districts. The legislature appropriated additional state funds of \$26.1 million to provide the educational services to children residing in these districts. In Fiscal Year 2014-15, the General Assembly further expanded the program to include children who met the same age and socioeconomic criteria and who resided in a district with a poverty index of 70 percent or more.

Of the funds appropriated for state-funded full-day 4K in Fiscal Year 2018-19, the General Assembly allocated \$300,000 to the Education Oversight Committee (EOC) to perform an evaluation of the program by January 15, 2019. This report:

- Documents CERDEP's implementation in Fiscal Year 2017-18 by focusing on the number of students served and the program's financial data;
- Using available information, provides estimates of the four-year-old population in 2017-18 and the number of four-year-olds in poverty served by a formal publicly-funded 4K program in South Carolina;
- Using 2016-17 and 2017-18 available data, estimates the per pupil cost of CERDEP;
- Details the results of 4K language and literacy assessments administered during school year 2017-18; and
- Provides preliminary estimates for Fiscal Year 2018-19, including the number of four-year-olds in poverty enrolled in CERDEP and financial data, including agency budget estimates and EOC projections.

I. CERDEP Program Results in 2017-18 (EOC)

Since Fiscal Year 2014-15, at-risk four-year-olds residing in a district with a poverty index of 70 percent or greater are eligible to participate in the program and attend a school or non-public child care center. Table 1 details at-risk children residing in the following 64 school districts could participate in CERDEP during FY 2017-18.

Table 1
At-Risk Four-Year-Olds Residing in Following School Districts
Eligible to Participate in CERDEP, 2017-18
Districts with Poverty Index of 70 percent or Greater

1	Abbeville	17	Clarendon 1	33	Greenwood 50	49	McCormick
2	Aiken	18	Clarendon 2	34	Greenwood 51	50	Newberry
3	Allendale	19	Clarendon 3	35	Greenwood 52	51	Oconee
4	Anderson 2	20	Colleton	36	Hampton 1	52	Orangeburg 3
5	Anderson 3	21	Darlington	37	Hampton 2	53	Orangeburg 4
6	Anderson 5	22	Dillon 3	38	Horry ⁵	54	Orangeburg 5
7	Bamberg 1	23	Dillon 4	39	Jasper	55	Richland 1
8	Bamberg 2	24	Dorchester 4	40	Kershaw ⁶	56	Saluda
9	Barnwell 19	25	Edgefield	41	Laurens 55	57	Spartanburg 3
10	Barnwell 29	26	Fairfield	42	Laurens 56	58	Spartanburg 4
11	Barnwell 45	27	Florence 1	43	Lee	59	Spartanburg 6
12	Berkeley	28	Florence 2	44	Lexington 2	60	Spartanburg 7
13	Calhoun	29	Florence 3	45	Lexington 3	61	Sumter
14	Cherokee	30	Florence 4	46	Lexington 4	62	Union ⁷
15	Chester	31	Florence 5	47	Marion	63	Williamsburg
16	Chesterfield	32	Georgetown	48	Marlboro	64	York 1

The January 2018 annual report on CERDEP documented the projected enrollments and expenditures for CERDEP for Fiscal Year 2017-18. The following is an analysis of the actual 2017-18 program metrics in both public and non-public CERDEP classrooms as administered by the South Carolina Department of Education (SCDE) and the Office of First Steps to School Readiness (First Steps). The analysis focuses on:

- Program expenditures and services for both SCDE and First Steps;
- Analysis of the percentage of four-year-olds in poverty served by a publicly-funded program across counties and districts;
- Analysis of the first-year expansion of the program that allowed districts and non-public centers to receive state funds to extend the school day or school year or to implement summer programs for children served in CERDEP; and
- Estimate of at-risk four-year-old children served by a formal program in the state.

⁵ While eligible, Horry has opted out of CERDEP participation.

⁶ While eligible, Kershaw has opted out of CERDEP participation.

⁷ While eligible, Union has opted out of CERDEP participation.

CERDEP Participation in Public Schools and Program Budget

The South Carolina Department of Education (SCDE) administers CERDEP in public school settings. In Fiscal Year 2017-18 of the 64 school districts eligible to serve at-risk four-year-olds in CERDEP, 61 schools districts participated. Three districts declined to participate: Horry County School District; Kershaw County School District and Union County School District.⁸ These districts instead opted to receive Education Improvement Act (EIA) funds to operate half-day four-year-old programs. In FY 2017-18, Table 2 shows three new schools and 25 new classrooms participated in CERDEP, resulting in 244 CERDEP schools and 589 participating classrooms serving 9,789 children at full instructional costs of \$43,284,159 (see Table 3).

Table 2
CERDEP Public School Growth in FY 2017-18

	FY 2017-18 (Final)
Number of New Schools	3
Number of Existing Schools	241
Total Number of Schools	244
Number of New Classrooms	25
Number of Existing Classrooms	564
Total Number of Classrooms	589
Total Number of Full Time Equivalents	9,789

Source: SC Department of Education, December 2018

Based on the source of information, the number of students participating in a public school CERDEP classroom varies from 9,789 to 10,733 students. Using monthly payments to districts obtained from SCDE's website, Appendix A reports 61 public school districts were reimbursed for 9,789 CERDEP students during the 2017-18 school year. For a detailed analysis of allocations to each district, see Appendix A. Appendix B reports 10,733 students were administered a 4K assessment at the beginning and at the end of the school year. However, no withdrawal date is included in the data, so it is possible a student withdrew or stopped participating in 4K after the second assessment was administered. There are no state guidelines or requirements that require a specific time during which the second assessment must be administered. Appendix A and Table 3 provide additional information about district reimbursements for expansion initiatives. Table 3 also substantiates district reimbursement for 9,789 CERDEP students and details:

- 9,789 students funded for instructional services at \$4,422 per student.
- 22 new CERDEP classrooms opened at \$10,000 per classroom;⁹
- 52 school districts received funds to purchase curriculum;

⁸ The only exception is that a charter school in the Horry County School District participates in CERDEP and receives state appropriations.

⁹ Table 3 reports \$220,000 was expended for new classroom supplies (\$10,000 per classroom for a total of 22 new classrooms). A December 3, 2018 email from SCDE staff reports there were 25 new classrooms during the 2017-18 school year.

- Approximately half, 31 school districts, offered expanded services (extended day, year or summer programs) to 1,355 children and were reimbursed \$1,088,631 for their expansion services;¹⁰ and
- \$10.3 million was carried forward to Fiscal Year 2018-19. However, in EOC's CERDEP report dated January 15, 2018, SCDE projected no carry forward funds.¹¹

Table 3 documents all revenues and expenditures for CERDEP by the SCDE in Fiscal Year 2017-18. Based on this data, there were 9,789 children funded in public CERDEP classrooms. Since Appendix B shows 10,733 CERDEP students were assessed twice during the school year, there is an 8.4 percent variance of 902 students.

¹⁰ South Carolina Department of Education. Child Early Reading and Development Education Program (CERDEP) Report to the EOC, Appendix A, Final Expansion Data, September 4, 2018.

¹¹ SC Education Oversight Committee. "FY 2016-17 & FY 2017-18 State-Funded Full-Day 4K Evaluation," p. 103, January 14, 2018.

**Table 3
SCDE CERDEP Budget for Fiscal Year 2017-18**

TOTAL Available Funds	
Carry forward from FY17 to FY18 ¹²	\$10,267,915
FY18 General Fund Appropriation	\$13,099,665
FY18 EIA Appropriation	<u>\$34,324,437</u>
TOTAL	\$57,692,017
TOTAL Actual Transfers/Expenditures	
Transfers:	
Portion of EOC Evaluation	\$195,000
Subtotal:	\$195,000
Agency Expenditures:	
Transportation	\$656,010
Assessment	\$500,000
Professional Development	<u>\$20,307</u>
Subtotal:	\$1,176,317
Payments to Districts:	
Instruction (\$4,422 per child pro-rata)	\$43,284,159
Supplies for New Classrooms (\$10,000 per classroom)	\$220,000
Curriculum	\$1,370,769
Classroom Expansion	\$137,079
Extended Year	\$165,440
Summer Program	<u>\$786,112</u>
Subtotal:	\$45,963,559
TOTAL	\$47,334,876
Full-Time Equivalents	9,789
Funds Carried Forward to FY19	\$10,357,141

Note: Expenditures have been rounded to the nearest whole dollar
Source: SC Department of Education, October 2018

¹² In an August 14, 2018 email to the EOC, SCDE updated the CERDEP carryforward funds from FY2016-17 into FY 2017-18. The revised carryforward amount is documented in the above. Please note the amount is different than the amount reported on January 15, 2018 in the EOC's annual report.

Changes in SCDE-Approved Curriculum

District expenditures for CERDEP include two new categories: curriculum and expansion. Regarding curriculum, in May of 2017 SCDE initiated a review of the curricula for CERDEP classrooms in public schools. Based upon the recommendations of an external review panel, the State Board of Education in August of 2018 approved five vendor-specific curricula for all CERDEP classrooms, detailed in Table 4. In addition, Montessori education was also approved for provision.

- Big Day for Pre-K by Houghton Mifflin Harcourt;
- Creative Curriculum, 6th Edition, by Teaching Strategies;
- High Scope by High Scope;
- InvestiGator Club by Robert Leslie;
- Worlds of Wonder by McGraw Hill; and
- Montessori.

According to SCDE:

CERDEP selected an approved curriculum by February 28, 2018. . . . Districts were required to attend training that aligned to their curriculum choice. CERDEP districts were reimbursed for the curriculum if they attended the required training. Reimbursements were not provided if a district did not participate in the PLO (Professional Learning Opportunity). Funds were allocated for each CERDEP classroom in the district. Additional districts provided documentation of the purchase for reimbursement by April 30, 2018.¹³

School districts were reimbursed accordingly for the purchase of curriculum. As the table below documents, overwhelming, 62 percent of the classrooms that received reimbursement funds elected to implement *Big Day in Pre-K*.¹⁴ SCDE reports that in 2017-18 there were a total of 564 CERDEP classrooms.

¹³ South Carolina Department of Education, Child Early Reading and Development Education Program (CERDEP) Report to the EOC, p. 28, September 4, 2018.

¹⁴ South Carolina Department of Education. Child Early Reading and Development Education Program (CERDEP) Report to the EOC, Table 5, September 4, 2018.

Table 4
Reimbursement Totals for District Curriculum Purchases, 2017-18

Number of CERDEP Districts	Number of Classrooms	Curriculum Choice	Reimbursement Amount
23	302	<i>Big Day for Pre-K</i>	\$923,068.70
16	107	<i>Creative Curriculum</i>	\$227,511.17
3	26	<i>High Scope</i>	\$49,546.50
10	54	<i>Worlds of Wonder</i>	\$170,642.70
0	0	<i>InvestiGator Club</i>	\$0
<u>0</u>	<u>0</u>	Montessori	<u>\$0</u>
52	489		\$1,370,769.07

Source: SC Department of Education, September 2018.

CERDEP: Participation in Non-public Centers and Program Budget

The Office of First Steps to School Readiness (First Steps) administers CERDEP in non-public (or private) child care centers approved by First Steps. The non-public child care centers can operate in any county but serve eligible children who reside in a CERDEP-eligible school district. Table 5 shows during FY 2017-18, First Steps added 24 new providers and 28 new classrooms that served 1,945 children who received the maximum reimbursement rate.

Table 5
CERDEP Non-public Provider Growth in FY 2017-18

	FY 2017-18 (Final)
Number of New Providers	24
Number of Existing Providers	166
Total Number of Providers	190
Number of New Classrooms	28
Number of Existing Classrooms	180
Total Number of Classrooms	208
Total Number of Full Time Equivalent	1,945

Source: SC Office of First Steps, December 2018.

Table 6 documents actual appropriations and expenditures in Fiscal Year 2017-18. Based on actual payments to non-public providers for instruction, First Steps reimbursed non-public CERDEP providers for 1,945 full-time equivalent students in 190 centers. First Steps expended approximately \$15.9 million, with \$9.7 million in funds carried forward into Fiscal Year 2018-19.

**Table 6
First Steps CERDEP Budget for Fiscal Year 2017-18**

TOTAL Available Funds	
Carry forward from FY17 to FY18	\$8,800,149
State Funds Expended and on-hold locally	\$152,717
Interested Earned on Cash	\$372,142
EIA Funds	\$9,767,864
General Fund	\$6,521,510
Teacher Supply Funds	<u>\$60,500</u>
TOTAL	\$25,674,882
TOTAL Actual Transfers/Expenditures	
Transfers:	
Portion of EOC Evaluation	\$105,000
Allocation to EOC per Proviso 1.72. and 1A.65. for Community Block Grants for Education Pilot Program	<u>\$1,000,000</u>
<i>Subtotal:</i>	\$1,105,000
Agency Expenditures:	
Salaries	\$961,444
Contractual Services	\$461,439
Supplies and materials	\$876,975
Rental/Leased Space	\$77,798
Travel	\$82,950
Fringe Benefits	<u>\$346,101</u>
<i>Subtotal:</i>	\$2,806,707
Payments to Centers:	
Instruction (\$4,422 per child pro-rata)	\$8,602,324
Expansion	\$2,376,804
Curriculum Materials for New Classrooms	\$269,472
Incentives and Miscellaneous	\$12,812
Stipends	\$480,013
Substitute Teacher Reimbursement	\$2,897
Teacher Supplies	\$60,225
Transportation	<u>\$192,311</u>
<i>Subtotal:</i>	\$11,996,858
TOTAL	\$15,908,565
Full-Time Equivalents	1,945
Funds Carried Forward to FY19	\$9,766,317
State Funds Expended and On-Hold Locally	<u>(\$29,432)</u>
TOTAL Carry Forward	\$9,736,885

Source: SC Office of First Steps, October 2018

Note: Expenditures have been rounded to the nearest whole dollar

*Note: Supplies for classrooms include \$10,000 allocation for new classrooms and funds to refurbish existing classrooms. Administration includes salaries, contractual services, travel, equipment and rental/leased space. Full-time equivalent served is determined by dividing the total number of funds expended for instructional services by \$4,422, the per child maximum reimbursable rate for 2017-18.

First Steps provided student enrollment data, with individual student unique identifier numbers for the 2017-18 school year. Looking at instructional payments to centers (non-public providers) in Table 6, non-public providers were reimbursed for 1,945 CERDEP students. However, First Steps also provided data that shows the number of students who participated in CERDEP based on the location of the non-public provider. The data indicate 2,195 students were served by CERDEP non-public providers. Enrollment of children is based on children living in CERDEP-eligible districts. The 11.3 percent variance between the enrollment data and the number of full-time equivalent children may be due to attrition, students enrolled in a non-public CERDEP class who did not stay enrolled in CERDEP for the entire length of the school year.

Table 7
CERDEP Students Served by Non-public Providers, by Location of Provider
During School Year 2017-18

County	Number	County	Number
Aiken	164	Jasper	17
Anderson	30	Kershaw	39
Bamberg	35	Laurens	108
Barnwell	37	Lee	20
Beaufort	4	Lexington	120
Berkeley	49	Marion	77
Charleston	21	Marlboro	9
Cherokee	22	Newberry	30
Chester	11	Oconee	24
Chesterfield	7	Orangeburg	68
Darlington	41	Pickens	2
Dillon	51	Richland	216
Dorchester	7	Saluda	11
Florence	218	Spartanburg	119
Georgetown	50	Sumter	132
Greenwood	50	Union	36
Hampton	14	Williamsburg	42
Horry	297	York	17
Total Enrollment		2,195	

Source: SC First Steps, November 2018

CERDEP: Expansion and Waiting Lists

Expansion

Provisos 1.72. and 1A.65. of the 2017-18 General Appropriation Act allowed both the South Carolina Department of Education and the Office of First Steps to use available CERDEP funding to lengthen the school day or school calendar or to provide a summer program for four-year-olds served in CERDEP:

For Fiscal Year 2017-18, the Office of First Steps to School Readiness is permitted to retain the first \$1,000,000 of any unexpended CDEPP funds of the prior fiscal year and expend these funds to enhance the quality of the full-day 4K program in private centers and provide professional development opportunities.

By August first, the Office of First Steps is directed to allocate any additional unexpended CDEPP funds from the prior fiscal year and any CDEPP funds carried forward from prior fiscal years that were transferred to the restricted account for the following purpose: Education Oversight Committee - \$1,000,000 for the South Carolina Community Block Grants for Education Pilot Program.

If carry forward funds are less than the amounts appropriated, funding for the items listed herein shall be reduced on a pro rata basis.

If by August first, the Department of Education or the Office of First Steps determines there will be funds available, funds shall be allocated on a per pupil basis for districts eligible for participation first, who have a documented waiting list, then to districts to increase the length of the program to a maximum of eight and a half hours per day or two hundred and twenty days per year or to fund summer programs. If a district chooses to fund summer enrollment the program funding shall conform to the funding in this act for full year programs, however shall be reduced on a pro rata basis to conform with the length of the program. A summer program shall be no more than eight and a half hours per day and shall be not more than ten weeks in length. The per pupil allocation and classroom grant must conform with the appropriated amount contained in this Act and end of year adjustments shall be based on the one hundred and thirty-five-day student average daily membership or later student average daily membership for districts choosing to extend the program past one hundred and eighty days. Funds may also be used to provide professional development and quality evaluations of programs.

No later than April first, the Department of Education and the Office of First Steps must report to the Chairman of the Senate Finance Committee and the Chairman of the House Ways and Means Committee on the expenditure of these funds to include the following information: the amount of money used and specific steps and measures taken to enhance the quality of the 4K program and the amount of money used for professional development as well as the types of professional development offered and the number of participants.

Appendix A details CERDEP expenditures by district, including total instructional, supply, curriculum and expansion costs. District reimbursement for expansion options was approximately \$1.1 million. Appendix B provides the number of public CERDEP students assessed twice during the 2017-18 school year by district. Appendix C includes the number of public CERDEP students assessed twice during the 2017-18 school year, by district and public school.

Appendix D describes CERDEP expansion in public school district during the 2017-18 school year. During FY 2017-18, 32 districts and 114 non-public providers participated in at least one

expansion activity providing 2,613 CERDEP students some form of expanded instruction. In its September 2018 data response, SCDE outlined the following four options for district expansion:

- **Additional Class:** SCDE required districts to provide a documented waiting list of CERDEP-eligible students before an additional class was approved. Districts were reimbursed at a daily rate of \$24.56 and could receive \$10,000 for materials and equipment if enrolling seven or more children. If less than seven children were enrolled, districts received \$1,000 per child. SCDE's November estimates assumed 90-day reimbursements for each district.
- **Extended Hours:** Districts were reimbursed at a \$3.78 hourly rate per child. SCDE's November estimates assumed 90-day reimbursements for each district.
- **Extended Year:** For instructional days beyond 180 days, districts were reimbursed between \$24.56 (for a 6.5-hour day) to \$34.02 (for an 8.5-hour day) per child. A complete school year with an extended year could equal up to 220 instructional days.
- **Summer Program:** SCDE's November estimates assumed ten weeks of instruction and up to 8.5 hours per day. Districts were reimbursed at the same rate as for the extended year: \$24.56 (for a 6.5-hour day) to \$34.02 (for an 8.5-hour day) per child. A complete school year with the addition of a summer program could equal up to 230 instructional days. See Appendix D.

First Steps took a slightly different approach to the CERDEP expansion initiative. For the 2017-18 school year, First Steps offered three options:

- The extended day option offered 180 days of service for 8.5 hours daily, instead of the traditional CERDEP instructional day of 6.5 hours. The daily reimbursable rate to non-public providers was \$32.13.
- The extended year option served students for 220 days at 6.5 hours daily. The daily reimbursable rate to non-public providers was \$24.57.
- A summer school option lengthened total days of services to 220 days and expanded the summer schedule to eight hours daily. Non-public providers were reimbursed \$24.57 for each day during the traditional school year of 180 days. For the additional 40 days during summer, non-public providers were reimbursed \$32.13. See Appendix E.

The expansion initiative was not implemented consistently in both public and non-public CERDEP environments:

- The extended year option in both public and non-public classrooms totaled 220 instructional days. However, SCDE allowed districts to determine the length of the instructional day; it could range from 6.5 hours to 8.5 hours daily. First Steps defined the extended year option with 8.5-hour instructional days.
- The summer school option varied in both public and non-public classrooms. CERDEP districts could choose to offer the summer school option and provide up to 230 instructional days that could vary between 6.5 hours to 8.5 hours. First Steps defined the summer school option as adding up to 40 8-hour instructional days, totaling 220 instructional days for one school year.

Waiting Lists

As noted earlier in this section, FY 2017-18 expenditures indicate CERDEP districts were reimbursed for 9,789 students enrolled in CERDEP. Table 8 shows approximately 936 children were on district waiting lists during the 2016-17 school year, with 189 in Aiken and 100 in Richland 1. These two districts accounted for 30 percent of the children statewide on waiting lists. At the beginning of FY 2017-18, there were 660 children on district waiting lists, representing an approximate decrease of 30 percent. In the January 2018 CERDEP evaluation report, the EOC recommended SCDE and First Steps share waiting lists to ensure CERDEP-eligible students on waiting lists were able to enroll in either a public or non-public CERDEP classroom. Proviso 1.72 states:

By August 1, the Department [SCDE] and the Office of First Steps must collect the documented waiting lists and determine a process to notify parent of eligible students of available slots in all approved providers.

For the 2017-18 school year, two separate waitlist numbers are reflected. In the January 2018 EOC CERDEP evaluation, SCDE reported there were 634 children on district waitlists. In their September 2018 CERDEP data response to the EOC, SCDE surveyed CERDEP districts and reported there were 148 children on district waitlists. As of August 31, 2018, there has been no further communication between SCDE and First Steps regarding sharing of waitlist information, and First Steps has not received information about CERDEP-eligible students on public school CERDEP waitlists.

Table 8
Children on District-Maintained Waiting Lists in 2016-17 and 2017-18

District	Number of Children 16-17 (January 2018 report)	Number of Children 17-18 (January 2018 report)	Number of Children 17-18 (August 2018 Data Response)
Abbeville	0	0	
Aiken	189	62	
Allendale	0	0	
Anderson 2	5		2
Anderson 3	3	8	
Anderson 5	5	1	
Bamberg 1	4	1	9
Bamberg 2	0		
Barnwell 19	3		1
Barnwell 29	0	5	
Barnwell 45	0	8	
Berkeley	41	28	28
Cherokee			6
Chester	10	24	
Chesterfield	39	0	
Clarendon 1	0		
Clarendon 2	6	4	1
Clarendon 3	0		

District	Number of Children 16-17 (January 2018 report)	Number of Children 17-18 (January 2018 report)	Number of Children 17-18 (August 2018 Data Response)
Colleton	9	15	
Darlington	19		7
Dillon 3	0	2	
Dillon 4	19	0	
Dorchester 4	7	0	
Edgefield	0		
Fairfield	0	7	
Florence 1	15	20	20
Florence 2	0	0	
Florence 3	15	0	10
Florence 4	20	0	
Florence 5	2	3	
Georgetown	12	0	
Greenwood 50	26	2	
Greenwood 51	0	1	
Greenwood 52	0	0	4
Hampton 1	13	4	
Hampton 2	2	0	
Horry (Academy of Hope Charter)	7	3	
Jasper	0	165	
Laurens 55	0	3	
Laurens 56	3	2	
Lee	1		
Lexington 2	35	0	
Lexington 3	8	0	
Marlboro	0	6	
McCormick	0		1
Newberry	41	91	20
Oconee	71	21	6
Orangeburg 3	0	2	
Orangeburg 4	6	5	4
Orangeburg 5	0	0	10
Richland 1	100	51	
Saluda	8	14	8
Spartanburg 3	16	16	
Spartanburg 4	0	9	
Spartanburg 6	46	36	

District	Number of Children 16-17 (January 2018 report)	Number of Children 17-18 (January 2018 report)	Number of Children 17-18 (August 2018 Data Response)
Spartanburg 7	8	0	
Sumter	85	10	8
Williamsburg	16	5	
York 1	21	0	3
Total	936	634	148

Source: SCDE Response to EOC Data Request, November and December 2017 and September 2018.

Summary

At the end of Fiscal Year 2017-18, SCDE and First Steps carried forward approximately \$20 million in unexpended funds for CERDEP. This amount includes funds from prior fiscal years that have been carried forward over time. In summary, Table 9 shows the growth in the number of CERDEP classrooms and participating schools and non-public providers. For the 2017-18 school year, 11,734 children were funded in public and non-public CERDEP classrooms, representing a decline of 50 students being funded in CERDEP (defined as full-time equivalents) over the prior school year. However, while there was a slight decline in CERDEP enrollment, 53 new classrooms were added, and 24 schools or non-public providers participated in CERDEP for the first time during 2017-18. Approximately 83 percent participated in a public-school classroom, and the remaining 17 percent in a non-public classroom.

Table 9
Summary of CERDEP Provider and School Growth in 2017-18

	SCDE 17-18 School Year (Final)	First Steps 17-18 School Year (Final)	Total
Number of New Schools or Providers	3	24	27
Number of Existing Schools or Providers	241	166	407
Total Number of Schools or Providers	244	190	434
Number of New Classrooms	25	28	53
Number of Existing Classrooms	564	180	744
Total Number of Classrooms	589	208	797
Total Number of Full-Time Equivalents	9,789	1,945	11,734

Source: SC Department of Education and SC Office of First Steps, December 2018

Documenting both the history of carry forward monies as well as the number of students served over the past two fiscal years, Table 10 shows \$20 million was carried forward from FY 2016-17 to FY 2017-18. The reason FY 2015-16 data are not included is that in FY 2015-16 SCDE did not reimburse at a pro rata amount, making comparisons to subsequent years impossible.

**Table 10
Summary of CERDEP**

	FY2016-17	FY2017-18
Students served in public schools for traditional year	9,838	9,789
Students served in non-public centers for traditional year	<u>1,946</u>	<u>1,945</u>
Total students served in traditional year	11,784	11,734
Expansion Services – Number Students Served in:		
Public Schools	N/A	1,355
Non-public Centers		1,258
Total students served in expansion services		2,613
Unexpended Funds		
SCDE	\$10,267,915	\$10,357,141
First Steps	<u>\$8,952,866</u>	<u>\$9,736,885</u>
Total unexpended funds	\$19,220,781	\$20,094,026

Findings and Recommendations

Finding 1: Additional CERDEP classrooms were added during the 2017-18 school year, but the actual number of children (full-time equivalent)¹⁵ funded decreased from the 2016-17 school year.

- SCDE reported 25 classrooms and three schools were added during the 2017-18 school year. However, based on SCDE program financial data districts were reimbursed for 9,789 students, a slight decrease in district reimbursement of 9,838 students during the 2016-17 school year.
- Similarly, First Steps reports there were 24 new providers and 28 new classrooms in FY 2017-18; however, First Steps' financial data indicate providers were reimbursed for 1,945 students, which is approximately the same number funded in 2016-17.
- Approximately, 83 percent of children were served in public schools and 17 percent in non-public centers. A total of 11,735 children (full-time equivalents) were funded in CERDEP in public and non-public settings. A total of \$63 million was expended for the program and over \$20 million carried forward from FY 2017-18 to FY 2018-19. Total expenditures are approximately \$7 million higher than in FY 2016-17 yet carry forward funds are also higher in FY 2017-18.

Finding 2: Based on SCDE financial data detailing payments to districts, Appendix A shows CERDEP district were reimbursed for 9,789 students. Appendix B reports 10,733 students were administered a 4K assessment twice during the school year, at the beginning and end of the school year. These two data sources represent a variance of 902 students, totaling \$3,986,644.¹⁶ The variance may be due to students who do not participate in CERDEP after the second (end of year) administration of the 4K assessment.

- In Appendix B, no withdrawal date is included in the data, so it is possible a student withdrew or stopped participating in 4K after the second assessment was administered. There are no state guidelines or requirements that require a specific time during which the second assessment must be administered. Appendix C provides a breakdown by district and school of the number of students assessed twice during the 2017-18 school year.
 - Recommendation 1: SCDE and First Steps should determine a period during which the second assessment should be administered to ensure students who are administered a second assessment may be enrolled for the length of the school year.

Finding 3: Approximately 936 children were on district waiting lists in 2016-17, with 189 in Aiken and 100 in Richland 1. These two districts accounted for 30 percent of the children statewide on waiting lists. In 2017-18, based on SCDE's September 2018 data response, there were 148 children on waiting lists, representing a decrease of 84 percent from 2016-17 to 2017-18.

¹⁵ A full-time equivalent is determined by dividing the total number of funds expended for instructional services by \$4,422, the per child maximum reimbursable rate. Annual instructional services expenditures were provided by SC Department of Education and SC State Office of First Steps.

¹⁶ \$4,422 per pupil multiplied by 902 students.

- Recommendation 2: SCDE and First Steps should continue to share waiting lists to ensure all CERDEP-eligible students are enrolled in available slots. Organizations that enroll and serve at-risk four-year-olds (including Head Start, SCDE and First Steps) should also be included. Formal coordination of waiting lists would also increase the number of at-risk children served statewide, which is significant because the number of at-risk children served statewide is estimated to have decreased in 2017-18. However, as of August 2018, First Steps reported no public school CERDEP waitlists for the 2018-19 school year had been provided.

Finding 4: Since both SCDE and First Steps manage CERDEP as separate programs, the expansion initiative in both public and non-public environments was also implemented as separate initiatives by SCDE and First Steps. This disconnected implementation resulted in inconsistencies in the amount of additional CERDEP instruction and reimbursement rates provided by public schools and non-public providers.

- For example, a summer school option lengthened total days of services to 220 days and expanded the summer schedule to eight hours daily. Non-public providers were reimbursed \$24.57 for each day during the traditional school year of 180 days. For the additional 40 days during summer, non-public providers were reimbursed \$32.13. 114 non-public providers operated 124 summer school classes serving 1,258 four-year-olds.
- However, SCDE's November estimates assumed ten weeks of instruction and up to 8.5 hours per day. Districts were reimbursed at the same rate as for the extended year: \$24.56 (for a 6.5-hour day) to \$34.02 (for an 8.5-hour day) per child. A complete school year with the addition of a summer program could equal up to 230 instructional days. During the 2017-18 summer, 32 districts operated summer school programs for four-year-old children.
 - Recommendation 3: Like the need for additional collaboration and coordination on the student waiting lists, SCDE and First Steps should work together to determine consistent implementation of CERDEP expansion, regardless of the CERDEP environment in which it is implemented.

Finding 5: Students who participate in a CERDEP expansion initiative are not identified at the student level. Student-level identification was not required in Proviso 1.72. Without student-level identification, it is not possible to evaluate the effectiveness of expansion, as measured by student-level performance on the Kindergarten Readiness Assessment.

- Recommendation 4: SCDE and First Steps should develop and implement a student-level identification system so the academic performance of students who participate in CERDEP expansion initiatives may be analyzed over time. This information should be provided to districts, so they can assess the impact of expansion on their students' kindergarten readiness and academic performance in later grades and reported to the EOC as part of their annual CERDEP evaluation.

Growth: Projection of Children in Poverty Served Statewide in 2017-18

A goal of CERDEP is to increase the number of four-year-olds in poverty who are served with a full-day high-quality program that meets specific structural and process criteria for quality such as minimum adult:child ratios, evidence-based curriculum and qualified teachers.¹⁷ This analysis provides a comprehensive picture of the projected enrollment of eligible four-year-old children during the 2017-18 school year.

Multiple full-day programs serve children in South Carolina, including: SC Office of First Steps (First Steps), Head Start, and school districts that manage multiple 4K programs, including CERDEP through the SC Department of Education (SCDE). While the focus of this report is state-funded full-day (CERDEP), other publicly-funded 4K programs are included in the analysis. Head Start is a federal program, and the SC Department of Social Services (DSS) provides federal child care vouchers (ABC Vouchers) to eligible children. However, a child's receipt of an ABC voucher does not necessarily mean the child is enrolled in a full-day program. The child could receive the voucher to pay for wraparound care (either before or after the formal 4K program day) or for 4K enrollment in participating non-public childcare settings.

Some school districts also opt to fund additional half-day or full-day 4K with local revenue and other state revenue sources, such as funds from the Education Improvement Act. Beaufort, Horry and Kershaw operate district-level 4K classrooms and do not receive CERDEP funds, even though these districts are eligible to participate in CERDEP. Program and enrollment data regarding local and EIA funding of 4K programs are not collected at the state level. However, this analysis incorporates 4K assessment data from school year 2017-18 to get a more comprehensive view of publicly funded early education programs.

Methodology

Appendix F documents the estimated number of four-year-olds in poverty projected to reside in each school district in 2017-18 and the number of four-year-olds in poverty being served in a publicly-funded early education program or service.

County birth rates reported by the SC Department of Health and Environmental Control (DHEC) provided the number of four-year-old children by county. For counties that had multiple districts, the analysis allocates the number of four-year-old children to districts based on the student enrollment in school year 2017-18.

The 2017-18 poverty index is the new poverty index created by SCDE, in cooperation with the Office of Revenue and Fiscal Affairs. The poverty index was developed because of the implementation of the United States Department of Agriculture's Community Eligibility Program. The index uses student data from the federal Supplemental Nutrition and Assistance Program, Temporary Assistance for Needy Families, and Medicaid. It also includes foster, homeless and migrant students. By multiplying the district poverty index by the number of projected four-year-old children, an approximate number of at-risk four-year-olds in poverty by district was estimated.

While a student must live in a district that is eligible to participate in CERDEP, a student may attend a non-public CERDEP provider that is in any district. Because the child's district of

¹⁷ National indicators of prekindergarten quality selected by the National Institute for Early Education Research (NIEER) and South Carolina's implementation of those indicators were discussed in Section I of this report.

residence was not included in the CERDEP student data file submitted by First Steps to the EOC, the data reflect the physical location of the non-public CERDEP provider in a county with allocation of children across districts in a county based pro rata on the enrollment of districts in that county. This may partially explain why some districts have more than 100 percent of estimated children in poverty being served. CERDEP enrollment in school district used the number of children funded in 2017-18.

The SC Head Start Collaboration Office provided student information based on May 2018 Head Start Census data. The data reflect the number of students served in Head Start in each county.

DSS provided an unduplicated count of the number of child care vouchers that authorized for four-year-olds by county for the July 1, 2017-June 30, 2018 timeframe. The number of vouchers increased significantly from the 2016-17 school year (2,499) to the 2017-18 school year (5,633), an increase of approximately 56 percent. DSS reported this increase could be due to more four-year-olds receiving vouchers than in the past. This increase does not reflect an overall total increase in the number of vouchers. Rather it is likely the total number of eligible children of other age groups decreased as a result of the increase in four-year-olds.¹⁸

A child's receipt of a child care voucher does not necessarily mean the child is enrolled in a full-day program. A child may be enrolled in a full-day 4K program and still receive a child care voucher for wraparound child care before the school day begins or after the school day ends or during the summer. A child enrolled in CERDEP in a non-public setting may also receive an ABC voucher, so child care is provided to the student after the instructional day. CERDEP requires a student participate for 6.5 hours daily, but a parent may need additional child care due to his/her work schedule.

Findings

Appendix F shows that in 2017-18 61 percent of the state's four-year-olds (36,018) lived in poverty and were at risk of not being ready for kindergarten. The estimate size of four-year-olds living in poverty increased slightly from 35,182 in 2016-17 to 36,018 in 2017-18. Over 17,000 of the state's at-risk four-year-old population, or 48 percent, were served by a full-day, publicly-funded early learning intervention (including CERDEP and Head Start).

First Steps CERDEP student enrollment data did not include the district of residence. Therefore, Appendix F includes First Steps CERDEP student enrollment data for districts that were eligible to participate in CERDEP in the calculation of students receiving services. However, 309 First Steps CERDEP students were not included in the calculation because they were enrolled in a First Steps CERDEP class in a district that was not eligible for CERDEP. The district of residence for these students could not be determined.

Appendix F also provides limited information about four-year-olds who participated in a public 4K program outside of CERDEP. These districts either opted not to participate in CERDEP or were not eligible to participate in CERDEP. This information was obtained by analyzing student assessment results from 2017-18 and documents the number of children identified in poverty who were assessed at the beginning and end of the school year. Approximately 7,592 four-year-olds in poverty were served by public 'Non-CERDEP' programs. However, information about specific student eligibility requirements (family income, special needs or other risk factors), and 4K service characteristics (full-day, half-day) are not available at the state level. Additionally, there are

¹⁸ December 19, 2018, Telephone interview with Department of Social Services.

instances where the percentage of children served in a district or county exceeds 100 percent. In these cases, further study is warranted.

If student enrollment in First Steps CERDEP classrooms located in non-eligible CERDEP districts and student enrollment in public schools that did not participate in CERDEP or were not eligible to participate are included in the statewide calculation, approximately 70.4 percent of four-year-olds living in poverty were served by a formal publicly-funded four-year-old program, which may be full-day or half-day in duration. This estimate does not include four-year-olds receiving child care vouchers.

In past years, four-year-olds receiving child care vouchers were also included in the projection of four-year-olds receiving services. However, the number of children receiving a voucher increased significantly from last year. Since last year, there was a 56 percent increase in four-year-old children who received a childcare voucher. Students who received vouchers may also participate in another 4K program such as CERDEP, and the voucher may be used to pay for child care before and/or after the 6.5-hour CERDEP school day. Since students enrolled in another 4K program may also receive a voucher, the number of vouchers were not included in the estimated percentage of four-year-olds served. Including the voucher data in the estimate of children served would likely have artificially inflated the number of four-year-olds receiving services since it may be duplicative data.

Table 11 summarizes the number of four-year-olds in poverty served statewide in Fiscal year 2017-18.

**Table 11
Summary of Four-Year-Olds in Poverty Served Statewide, FY 2017-18**

	2017-18
Public CERDEP Enrollment	9,789
Non-public CERDEP Enrollment	1,778
Total CERDEP Enrollment	11,567
Total Head Start Enrollment	5,589
Estimated Number of Four-Year-Olds Served by CERDEP or Head Start	17,156
Estimated Number of Four-Year-Olds in Poverty	36,018
Estimated Percentage of Four-Year-Olds in Poverty Served by CERDEP or Head Start	47.6%
Estimated Percentage of Four-Year-Olds in Poverty Not Served by CERDEP or Head Start	52.4%
Four-Year-Olds in Poverty in Non-CERDEP Public 4K	7,592
Four-Year-Old Children served in Non-Public CERDEP in a center operating in a non-CERDEP district	309
Total Number of Four-Year-Olds in Poverty in Formal 4K (CERDEP, Head Start, and Non-CERDEP Public 4K)	25,057
Estimated Percentage of Four-Year-Olds in Poverty Served	69.6%
Total SC Vouchers Provided	5,633 ¹⁹

¹⁹ Child care voucher data are not included in the estimated number of four-year-olds served because it may include children who receive 4K services through another resource, such as CERDEP or Head Start.

Findings and Recommendations

Finding 6: The estimated size of four-year-olds living in poverty increased slightly from 35,182 in 2016-17 to 36,018 in 2017-18. Approximately 48 percent of four-year-olds living in poverty were enrolled in CERDEP or Head Start. If student enrollment in First Steps CERDEP classrooms located in non-eligible CERDEP districts and in public schools that do not participate in CERDEP are included in the statewide calculation, approximately 70 percent of four-year-olds living in the poverty are served by a formal publicly-funded four-year-old program. This estimate does not include four-year-olds receiving child care vouchers.

- Head Start enrollment increased from by 27 percent, from 4,395 children in the May 2017 Head Start Census to 5,589 children in the May 2018 census.
- The number of four-year-olds receiving child care vouchers more than tripled during the 2017-18 school year. This data are not included in the number of children in poverty participating in 4K services because children may be enrolled in a 4K program and also receive an SC Voucher for child care before or after normal school hours, artificially inflating the number of students participating in 4K programs.
- Almost 9,800 four-year-old children also participated in other state-funded four-year-old programs that are not part of CERDEP. However, data about these programs are not collected at the state level, so there is no process to understand program characteristics and demographics, such as length of the school day and/or student eligibility requirements for the programs.
 - Recommendation 5: CERDEP guidelines for reporting student enrollment should be implemented for all programs and services for four-year-old children. As noted in last year's evaluation, student, program and financial data regarding all public 4K programs should be collected and reported at the state level, since only evaluating CERDEP classrooms does not fully account for half of the state's at-risk four-year-old population and the instruction and services they may receive through locally-funded or EIA-funded programs. SCDE should implement uniform data collection procedures for all publicly-funded 4K programs, including those funded by local school districts and the Education Improvement Act. Without a uniform data collection procedure, 4K instruction and services in districts that do not participate in CERDEP are not captured. It is difficult to calculate an accurate estimate of the State's progress in serving all four-year-olds in poverty.
 - Recommendation 6: To increase 4K participation across all publicly-funded programs, coordinated enrollment initiatives should be implemented with SCDE, First Steps and Head Start to ensure the maximum number of eligible four-year-olds are enrolled. Where possible enrollment of four-year-olds in district-administered 4K instruction funded by local or EIA funding should also be included. As noted earlier, sharing waitlists across multiple 4K settings may facilitate increased enrollment.
- Finding 7: First Steps CERDEP student enrollment data did not include the district of residence. Therefore, Appendix F includes First Steps CERDEP student enrollment data for districts that are eligible to participate in CERDEP in the calculation of students receiving services. However, 309 First Steps CERDEP students are not included in the calculation because they are enrolled in a First Steps CERDEP class in a district that is

not eligible for CERDEP, and the district of residence for these students could not be determined.

Recommendation 7: First Steps student enrollment data should include the student's district of residence. Inclusion of district of residence would improve the accuracy of the number of CERDEP students served as indicated by their district of residence.

**Appendix A: CERDEP Expenditures by District,
including District Reimbursements for CERDEP Students (Full-Time Equivalents)**

District	CERDEP Instruction Revenue Code 3134	CERDEP Instruction Revenue Code 3541	TOTAL INSTRUCTIONAL	Total Instructional Divided by \$4,422	CERDEP Supplies Revenue Code 3134A	CERDEP Curriculum Revenue Code 3134D	CERDEP Classroom Expansion	CERDEP Extended Year Revenue Code 3134G	CERDEP Summer Program Revenue Code 3134H
Abbeville	\$384,877.78	\$0.00	\$384,877.78	87	\$0.00	\$15,294.90	\$0.00	\$0.00	\$0.00
Aiken	\$1,986,002.09	\$0.00	\$1,986,002.09	449	\$30,000.00	\$70,356.54	\$16,213.56	\$22,109.40	\$8,843.76
Allendale	\$151,723.73	\$0.00	\$151,723.73	34	\$0.00	\$0.00	\$0.00	\$20,412.00	\$40,824.00
Anderson 2	\$429,621.87	\$0.00	\$429,621.87	97	\$0.00	\$15,294.90	\$0.00	\$0.00	\$17,687.52
Anderson 3	\$455,334.98	\$0.00	\$455,334.98	103	\$0.00	\$18,353.88	\$0.00	\$0.00	\$0.00
Anderson 5	\$1,748,950.13	\$0.00	\$1,748,950.13	396	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Bamberg 1	\$87,752.13	\$0.00	\$87,752.13	20	\$0.00	\$4,684.82	\$0.00	\$0.00	\$0.00
Bamberg 2	\$115,070.27	\$0.00	\$115,070.27	26	\$0.00	\$0.00	\$0.00	\$0.00	\$11,791.68
Barnwell 19	\$83,559.42	\$0.00	\$83,559.42	19	\$0.00	\$2,256.45	\$0.00	\$0.00	\$5,895.84
Barnwell 29	\$84,018.00	\$0.00	\$84,018.00	19	\$0.00	\$3,199.27	\$0.00	\$0.00	\$1,473.96
Barnwell 45	\$173,833.73	\$0.00	\$173,833.73	39	\$0.00	\$4,426.94	\$0.00	\$0.00	\$0.00
Berkeley	\$3,978,686.31	\$0.00	\$3,978,686.31	900	\$0.00	\$143,772.06	\$0.00	\$0.00	\$0.00
Calhoun	\$332,894.71	\$0.00	\$332,894.71	75	\$0.00	\$20,387.46	\$0.00	\$0.00	\$13,707.83
Cherokee	\$682,691.29	\$0.00	\$682,691.29	154	\$0.00	\$22,564.50	\$0.00	\$0.00	\$0.00
Chester	\$868,710.09	\$0.00	\$868,710.09	196	\$0.00	\$32,623.76	\$0.00	\$0.00	\$30,363.58
Chesterfield	\$602,407.42	\$0.00	\$602,407.42	136	\$30,000.00	\$15,494.29	\$0.00	\$0.00	\$0.00
Clarendon 1	\$0.00	\$173,375.16	\$173,375.16	39	\$10,000.00	\$4,612.90	\$17,853.34	\$0.00	\$11,054.70
Clarendon 2	\$0.00	\$392,575.33	\$392,575.33	89	\$0.00	\$15,294.90	\$0.00	\$0.00	\$0.00
Clarendon 3	\$0.00	\$152,116.80	\$152,116.80	34	\$0.00	\$0.00	\$0.00	\$4,421.88	\$0.00
Colleton	\$0.00	\$1,017,191.02	\$1,017,191.02	230	\$0.00	\$38,764.22	\$0.00	\$0.00	\$29,479.20
Darlington	\$0.00	\$1,266,919.38	\$1,266,919.38	287	\$0.00	\$11,092.50	\$0.00	\$0.00	\$16,582.05
Dillon 3	\$0.00	\$294,636.22	\$294,636.22	67	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

District	CERDEP Instruction	CERDEP Instruction	TOTAL	Total Instructional	CERDEP Supplies	CERDEP Curriculum	CERDEP Classroom Expansion	CERDEP Extended Year	CERDEP Summer Program
Dillon 4	\$0.00	\$529,231.51	\$529,231.51	120	\$0.00	\$13,280.82	\$0.00	\$0.00	\$0.00
Dorchester 4	\$0.00	\$427,656.53	\$427,656.53	97	\$0.00	\$0.00	\$0.00	\$0.00	\$10,317.72
Edgefield	\$0.00	\$498,998.13	\$498,998.13	113	\$0.00	\$10,128.49	\$0.00	\$0.00	\$0.00
Fairfield	\$0.00	\$663,300.00	\$663,300.00	150	\$0.00	\$18,451.60	\$0.00	\$0.00	\$0.00
Florence 1	\$0.00	\$1,857,829.60	\$1,857,829.60	420	\$0.00	\$36,975.00	\$0.00	\$81,648.00	\$0.00
Florence 2	\$0.00	\$185,592.98	\$185,592.98	42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Florence 3	\$0.00	\$429,785.64	\$429,785.64	97	\$0.00	\$15,294.90	\$0.00	\$0.00	\$15,309.00
Florence 4	\$0.00	\$137,049.24	\$137,049.24	31	\$0.00	\$6,738.36	\$0.00	\$0.00	\$20,412.00
Florence 5	\$0.00	\$172,458.00	\$172,458.00	39	\$0.00	\$1,479.00	\$0.00	\$0.00	\$0.00
Georgetown	\$0.00	\$1,410,585.24	\$1,410,585.24	319	\$0.00	\$51,522.82	\$0.00	\$0.00	\$0.00
Greenwood 50	\$0.00	\$960,032.58	\$960,032.58	217	\$0.00	\$36,707.76	\$0.00	\$36,849.00	\$36,849.00
Greenwood 51	\$0.00	\$166,889.56	\$166,889.56	38	\$0.00	\$6,117.96	\$0.00	\$0.00	\$0.00
Greenwood 52	\$0.00	\$176,028.36	\$176,028.36	40	\$0.00	\$6,117.96	\$0.00	\$0.00	\$0.00
Hampton 1	\$0.00	\$408,953.11	\$408,953.11	92	\$20,000.00	\$22,295.34	\$63,011.79	\$0.00	\$28,742.22
Hampton 2	\$0.00	\$165,317.29	\$165,317.29	37	\$10,000.00	\$6,178.02	\$0.00	\$0.00	\$5,527.35
Horry	\$0.00	\$69,736.58	\$69,736.58	16		\$3,198.58	\$0.00	\$0.00	\$0.00
Jasper	\$0.00	\$662,939.69	\$662,939.69	150	\$10,000.00	\$21,412.86	\$0.00	\$0.00	\$18,424.50
Laurens 55	\$0.00	\$890,099.47	\$890,099.47	201	\$0.00	\$43,565.60	\$0.00	\$0.00	\$17,687.52
Laurens 56	\$0.00	\$254,510.67	\$254,510.67	58	\$0.00	\$12,235.14	\$0.00	\$0.00	\$8,843.76
Lee	\$0.00	\$253,888.31	\$253,888.31	57	\$0.00	\$6,947.35	\$0.00	\$0.00	\$14,739.60
Lexington 2	\$0.00	\$1,003,007.87	\$1,003,007.87	227	\$70,000.00	\$36,707.76	\$0.00	\$0.00	\$17,687.52
Lexington 3	\$0.00	\$471,755.59	\$471,755.59	107	\$0.00	\$12,235.92	\$0.00	\$0.00	\$8,843.76
Lexington 4	\$0.00	\$1,000,813.24	\$1,000,813.24	226	\$0.00	\$0.00	\$0.00	\$0.00	\$11,054.70
McCormick	\$0.00	\$74,715.42	\$74,715.42	17	\$0.00	\$0.00	\$0.00	\$0.00	\$8,843.76

District	CERDEP Instruction	CERDEP Instruction	TOTAL	Total Instructional	CERDEP Supplies	CERDEP Curriculum	CERDEP Classroom Expansion	CERDEP Extended Year	CERDEP Summer Program
Marion	\$0.00	\$596,609.69	\$596,609.69	135	\$0.00	\$24,348.17	\$0.00	\$0.00	\$0.00
Marlboro	\$0.00	\$569,619.11	\$569,619.11	129	\$0.00	\$19,921.23	\$0.00	\$0.00	\$17,687.52
Newberry	\$0.00	\$680,889.73	\$680,889.73	154	\$0.00	\$25,169.20	\$0.00	\$0.00	\$23,583.36
Oconee	\$0.00	\$1,461,225.33	\$1,461,225.33	330	\$20,000.00	\$58,120.62	\$0.00	\$0.00	\$0.00
Orangeburg 3	\$0.00	\$580,919.78	\$580,919.78	131	\$0.00	\$21,623.07	\$0.00	\$0.00	\$15,476.58
Orangeburg 4	\$0.00	\$678,989.91	\$678,989.91	154	\$0.00	\$27,530.82	\$0.00	\$88,437.60	\$0.00
Orangeburg 5	\$0.00	\$1,261,121.64	\$1,261,121.64	285	\$0.00	\$45,884.70	\$0.00	\$0.00	\$44,218.80
Richland 1	\$0.00	\$1,828,611.64	\$1,828,611.64	414	\$0.00	\$82,592.46	\$0.00	\$0.00	\$104,101.20
Saluda	\$0.00	\$346,226.22	\$346,226.22	78	\$10,000.00	\$9,025.80	\$0.00	\$0.00	\$11,791.68
Spartanburg 3	\$0.00	\$500,897.96	\$500,897.96	113	\$0.00	\$0.00	\$0.00	\$0.00	\$23,214.87
Spartanburg 4	\$0.00	\$487,697.47	\$487,697.47	110	\$0.00	\$17,707.76	\$0.00	\$0.00	\$0.00
Spartanburg 6	\$0.00	\$1,489,722.67	\$1,489,722.67	337	\$40,000.00	\$67,297.56	\$0.00	\$0.00	\$41,455.13
Spartanburg 7	\$0.00	\$775,455.02	\$775,455.02	175	\$0.00	\$33,202.05	\$0.00	\$0.00	\$99,492.30
Sumter	\$0.00	\$2,288,106.58	\$2,288,106.58	517	\$10,000.00	\$82,592.46	\$0.00	\$0.00	\$0.00
Williamsburg	\$0.00	\$636,178.40	\$636,178.40	144	\$0.00	\$29,229.64	\$0.00	\$0.00	\$11,791.68
York 1		\$771,098.53	\$771,098.53	174	\$0.00	\$20,458.00	\$0.00	\$0.00	\$0.00
TOTAL	\$12,166,133.95	\$31,121,358.20	\$43,287,492.15	9,789	\$260,000.00	\$1,370,769.07	\$97,078.69	\$253,877.88	\$803,799.65
Adjustments			(\$3,333.00)		(\$40,000.00)		\$40,000.00	(\$88,437.88)	(\$17,687.65)
Program Totals:			\$43,284,159.15		\$220,000.00		\$137,078.69	\$165,440.00	\$786,112.00

Source: [https://ed.sc.gov/finance/financial-services/payment-information/monthly-payments-to-districts/fiscal Year 2017-18, July 13th month](https://ed.sc.gov/finance/financial-services/payment-information/monthly-payments-to-districts/fiscal-Year-2017-18,July-13th-month)

Note: SCDE's Office of Finance provided these "adjustments" to the EOC.

**Appendix B: CERDEP Public Students Assessed
Twice During School Year 2017-18 by District**

District	Count	District	Count
Abbeville	92	Georgetown	265
Aiken	577	Greenwood 50	263
Allendale	42	Greenwood 51	54
Anderson 2	36	Greenwood 52	36
Anderson 3	91	Hampton 1	89
Anderson 5	373	Hampton 2	37
Bamberg 1	38	Horry	15
Bamberg 2	21	Jasper	145
Barnwell 19	19	Laurens 55	251
Barnwell 29	20	Laurens 56	79
Barnwell 45	58	Lee	68
Berkeley	1026	Lexington 2	208
Calhoun	68	Lexington 3	49
Cherokee	334	Lexington 4	211
Chester	112	McCormick	26
Chesterfield	236	Marion	156
Clarendon 1	38	Marlboro	120
Clarendon 2	99	Newberry	101
Clarendon 3	52	Oconee	387
Colleton	217	Orangeburg 3	137
Darlington	275	Orangeburg 4	162
Dillon 3	93	Orangeburg 5	289
Dillon 4	118	Richland 1	909
Dorchester 4	110	Saluda	77
Edgefield	114	Spartanburg 3	93
Fairfield	128	Spartanburg 4	151
Florence 1	320	Spartanburg 6	397
Florence 2	44	Spartanburg 7	201
Florence 3	94	Sumter	516
Florence 4	28	Williamsburg	135
Florence 5	39	York 1	194
Total		10,733	

**Appendix C: CERDEP Public Students Assessed
Twice During School Year 2017-18 by District and School**

District	School	Students Assessed
Abbeville 60	John C Calhoun Elem	17
Abbeville 60	Cherokee Trail Elem	20
Abbeville 60	Diamond Hill Elem	18
Abbeville 60	Long Cane Primary	37
Allendale 01	Allendale/Fairfax Elem	42
Aiken 01	Jefferson Elem	44
Aiken 01	Aiken Elem	37
Aiken 01	Belvedere Elem	2
Aiken 01	J D Lever Elem	37
Aiken 01	Clearwater Elem	36
Aiken 01	Busbee Corbett Elem/Mid	40
Aiken 01	East Aiken School of the Arts	20
Aiken 01	Gloverville Elem	42
Aiken 01	Greendale Elem	36
Aiken 01	Hammond Hill Elem	20
Aiken 01	Millbrook Elem	25
Aiken 01	North Aiken El	38
Aiken 01	North Augusta Elem	26
Aiken 01	Warrenville Elem	20
Aiken 01	Oakwood-Windsor Elem	35
Aiken 01	Redcliffe Elem	39
Aiken 01	Mossy Creek Elem	21
Aiken 01	Ridge Spring Monetta Elem	37
Aiken 01	Horse Creek Academy	22
Anderson 02	Marshall Primary	29
Anderson 02	Honea Path Elem	7
Anderson 03	Iva Elem	33
Anderson 03	Starr Elem	28
Anderson 03	Flat Rock Elem.	30
Anderson 05	Homeland Park Primary	56
Anderson 05	Whitehall Elementary	39

District	School	Students Assessed
Anderson 05	North Pointe Elementary	58
Anderson 05	West Market School of Early Ed.	131
Anderson 05	South Fant School of Early Ed.	89
Bamberg 01	Richard Carroll Elem.	38
Bamberg 02	Denmark-Olar Elem	21
Barnwell 19	Macedonia Elem	19
Barnwell 29	Kelly Edwards Elem	20
Barnwell 45	Barnwell Primary	58
Berkeley 01	Berkeley Elem	57
Berkeley 01	Boulder Bluff Elem	57
Berkeley 01	Cainhoy Elementary	23
Berkeley 01	Cross Elem	36
Berkeley 01	College Park Elem	64
Berkeley 01	J K Gourdin Elem	12
Berkeley 01	Sangaree Elem	73
Berkeley 01	Henry E Bonner Elem	45
Berkeley 01	St Stephen Elem	38
Berkeley 01	Whitesville Elem	63
Berkeley 01	Marrington Elementary School	69
Berkeley 01	Devon Forest Elem	74
Berkeley 01	Hanahan Elem	71
Berkeley 01	Westview Primary	150
Berkeley 01	Goose Creek Primary	85
Berkeley 01	Daniel Island School	7
Berkeley 01	Cane Bay Elementary	43
Berkeley 01	Nexton Elementary	39
Berkeley 01	Philip Simmons Elementary	20
Calhoun 01	Sandy Run School	27
Calhoun 01	St Matthews K-8 School	41
Cherokee 01	Corinth Elem	37
Cherokee 01	Draytonville Elem	17
Cherokee 01	Mary Bramlett Elem	12
Cherokee 01	Mary Bramlett Elem	1
Cherokee 01	Goucher Elem	16
Cherokee 01	B D Lee Elem	38
Cherokee 01	B D Lee Elem	2
Cherokee 01	Luther L Vaughan Elem	20

District	School	Students Assessed
Cherokee 01	Limestone/Central Elem	36
Cherokee 01	Grassy Pond Elem	58
Cherokee 01	Northwest Elem	37
Cherokee 01	Blacksburg Primary	60
Chester 01	Great Falls Elem	12
Chester 01	Lewisville Elem	36
Chester 01	Chester Park Elem of Inquiry	20
Chester 01	Chester Park Elem. of Arts	18
Chester 01	Chester Park Elem Literacy/Tec	26
Chesterfield 01	Cheraw Primary	60
Chesterfield 01	Edwards Elem	40
Chesterfield 01	Jefferson Elem	24
Chesterfield 01	Petersburg Primary	54
Chesterfield 01	McBee Elem	20
Chesterfield 01	Plainview Elem	18
Chesterfield 01	Ruby Elem	20
Clarendon 01	Summerton Early Childhood Ctr	38
Clarendon 02	Manning Early Childhood Ctr	99
Clarendon 03	Walker-Gamble Elem	52
Colleton 01	Bells Elem	19
Colleton 01	Black St Early Childhood Ctr	139
Colleton 01	Cottageville Elem	40
Colleton 01	Hendersonville Elem	19
Darlington 01	Cain Elem	39
Darlington 01	Lamar Elem	37
Darlington 01	Pate Elem	40
Darlington 01	Rosenwald Elem/Middle	13
Darlington 01	St Johns Elem	39
Darlington 01	Southside Early Childhood Center	107
Dillon 03	Latta Elementary	93
Dillon 04	Lake View Elementary	19
Dillon 04	East Elementary	40
Dillon 04	South Elementary	19
Dillon 04	Stewart Heights Elementary	40
Dorchester 04	Harleyville Elem	19
Dorchester 04	Williams Memorial Elem	77
Dorchester 04	Clay Hill Elem	14

District	School	Students Assessed
Edgefield 01	Douglas Elem	19
Edgefield 01	Johnston Elem	26
Edgefield 01	W E Parker Elem	35
Edgefield 01	Merriwether Elem	34
Fairfield 01	Kelly Miller Elem	20
Fairfield 01	McCrorey-Liston School of Tech	17
Fairfield 01	Geiger Elem	14
Fairfield 01	Fairfield Elementary	57
Fairfield 01	Fairfield Magnet For Math/Sci	20
Florence 01	McLaurin Elementary	87
Florence 01	Theodore Lester Elem	14
Florence 01	North Vista Elem	30
Florence 01	Dewey-Carter Elem	38
Florence 01	Alfred Rush Academy	51
Florence 01	CDC at Woods Road	100
Florence 02	Hannah-Pamplico Elem/Middle	44
Florence 03	J C Lynch Elem	17
Florence 03	Olanta Elem	17
Florence 03	Scranton Elem	20
Florence 03	Lake City ECC	40
Florence 04	Brockington Elem	28
Florence 05	Johnsonville Elem	39
Georgetown 01	Andrews Elem	49
Georgetown 01	Browns Ferry Elem	17
Georgetown 01	Pleasant Hill Elem	17
Georgetown 01	Kensington Elem	23
Georgetown 01	Maryville Elem	25
Georgetown 01	McDonald Elem	49
Georgetown 01	Plantersville Elem	12
Georgetown 01	Sampit Elem	34
Georgetown 01	Waccamaw Elem	39
Greenwood 50	Eleanor S. Rice Elem.	14
Greenwood 50	Lakeview Elem	31
Greenwood 50	Merrywood Elem	6
Greenwood 50	Greenwood Early Childhood Ctr	212
Greenwood 51	Ware Shoals Primary	54
Greenwood 52	Ninety-Six Primary	36

District	School	Students Assessed
Hampton 01	Varnville Elementary	74
Hampton 01	Fennell Elem	15
Hampton 02	Estill Elem	37
Horry 01	Academy of Hope Charter	15
Jasper 01	Hardeeville Elem	73
Jasper 01	Ridgeland Elem	72
Laurens 55	Ford Elem	46
Laurens 55	E B Morse Elem	37
Laurens 55	Laurens Elem	63
Laurens 55	Waterloo Elem	22
Laurens 55	Gray Court-Owings Elem/Mid	50
Laurens 55	Hickory Tavern Elem/Mid	33
Laurens 56	M S Bailey Child Dev Ctr	79
Lee 01	Bishopville Primary	38
Lee 01	Lower Lee Elem	18
Lee 01	West Lee Elem	12
Lexington 02	B C No 1 Elem	17
Lexington 02	Springdale Elem	25
Lexington 02	Congaree/Wood Early C Ctr	109
Lexington 02	Cayce Elementary	57
Lexington 03	Batesburg-Leesville Primary	49
Lexington 04	Lexington Four Early Childhood	211
McCormick 01	McCormick Elem	26
Marion 10	North Mullins Primary	156
Marlboro 01	Bennettsville Primary	40
Marlboro 01	McColl Elem/Middle	36
Marlboro 01	Clio Elem	10
Marlboro 01	Wallace Elem/Middle	25
Marlboro 01	Blenheim Elem/Middle	9
Newberry 01	Boundary St Elem	29
Newberry 01	Gallman Elem	3
Newberry 01	Pomaria/Garmany Elem	13
Newberry 01	Little Mountain Elem	2
Newberry 01	Reuben Elem	20
Newberry 01	Newberry Elem	24
Newberry 01	Whitmire Community Elem	4
Newberry 01	Prosperity-Rikard Elem	6

District	School	Students Assessed
Oconee 01	Keowee Elem	39
Oconee 01	Northside Elem	39
Oconee 01	James M Brown Elem	58
Oconee 01	Ravenel Elem	42
Oconee 01	Tamassee-Salem Elem	19
Oconee 01	Walhalla Elem	25
Oconee 01	Westminster Elem	33
Oconee 01	Fair-Oak Elem	42
Oconee 01	Orchard Park Elem	42
Oconee 01	Blue Ridge Elementary	48
Orangeburg 03	Holly Hill Elem	43
Orangeburg 03	St James-Gaillard Elem	38
Orangeburg 03	Vance-Providence Elem	19
Orangeburg 03	Elloree Elem	37
Orangeburg 04	Edisto Primary	115
Orangeburg 04	Lockett Elementary	30
Orangeburg 04	Hunter Kinard Tyler Elem	17
Orangeburg 05	Bethune-Bowman Elem	37
Orangeburg 05	Marshall Elem	76
Orangeburg 05	Brookdale Elem	17
Orangeburg 05	Sheridan Elem	49
Orangeburg 05	Whittaker Elem	38
Orangeburg 05	Dover Elem	24
Orangeburg 05	Rivelon Elementary	48
Richland 01	Arden Elem	31
Richland 01	Bradley Elem	47
Richland 01	Annie Burnside Elem	18
Richland 01	Caughman Rd Elem	53
Richland 01	Gadsden Elem	19
Richland 01	A J Lewis Greenview Elem	35
Richland 01	Hopkins Elem	27
Richland 01	Horrell Hill Elem	45
Richland 01	Hyatt Park Elem	38
Richland 01	Logan Elem	39
Richland 01	Meadowfield Elem	34
Richland 01	Mill Creek Elem	27
Richland 01	A C Moore Elem	26

District	School	Students Assessed
Richland 01	E.E Taylor Elem	20
Richland 01	S Kilbourne Elem	43
Richland 01	Sandel Elem	30
Richland 01	Rhame Elem	33
Richland 01	J P Thomas Elem	28
Richland 01	Webber Elem	17
Richland 01	Carver-Lyon Elem	61
Richland 01	Burton Pack Elem	39
Richland 01	Pine Grove Elem	39
Richland 01	Watkins-Nance Elem	54
Richland 01	Forest Heights Elem	33
Richland 01	Brockman Elem	45
Richland 01	Carolina Charter for Inquiry	28
Saluda 01	Saluda Primary	58
Saluda 01	Hollywood Elem	19
Spartanburg 03	Cannons Elem	18
Spartanburg 03	Cowpens Elem	37
Spartanburg 03	Clifdale Elem	20
Spartanburg 03	Pacolet Elem	18
Spartanburg 04	Woodruff Primary	151
Spartanburg 06	Arcadia Elem	233
Spartanburg 06	Fairforest Elem	6
Spartanburg 06	Pauline Glenn Springs Elem	19
Spartanburg 06	Jesse S Bobo Elem	30
Spartanburg 06	West View Elem	37
Spartanburg 06	Woodland Heights Elem	19
Spartanburg 06	Roebuck Elem	32
Spartanburg 06	Anderson Mill Elem	21
Spartanburg 07	E P Todd School	21
Spartanburg 07	Cleveland Academy of Leadership	36
Spartanburg 07	Meeting St. Academy-Spartanburg	37
Spartanburg 07	District 7 Early Learning Ctr	107
Sumter 01	Cherryvale Elementary	34
Sumter 01	FJ Delaine Elementary	16
Sumter 01	RE Davis Elementary	28
Sumter 01	Manchester Elementary	35
Sumter 01	Oakland Primary	86

District	School	Students Assessed
Sumter 01	Rafting Creek Elementary	17
Sumter 01	Alice Drive Elementary	18
Sumter 01	Crosswell Drive Elementary	45
Sumter 01	Lemira Elementary	20
Sumter 01	Millwood Elementary	38
Sumter 01	Wilder Elementary	19
Sumter 01	Willow Drive Elementary	36
Sumter 01	Pocalla Springs Elementary	69
Sumter 01	Kingsbury Elementary	55
Williamsburg 01	Anderson Primary	42
Williamsburg 01	Greeleyville Elem	19
Williamsburg 01	Hemingway Elem	53
Williamsburg 01	DP Cooper Charter	21
York 01	Jefferson Elem	35
York 01	Hickory Grove-Sharon Elem	18
York 01	Hunter Street Elem	60
York 01	Cotton Belt Elem	43
York 01	Harold C. Johnson Elementary	38
	TOTAL	10,733

Source: SCDE Response to EOC Data Request, September 2018.

Note: CERDEP students in Horry were enrolled in a charter school that elected to participate in the program.

**Appendix D: CERDEP Expansion in Public School Districts
During 2017-18 School Year**

District	Additional Classes	Extended Year	Summer Program
Aiken	X		X
Allendale			X
Anderson 2			X
Barnwell 19			X
Barnwell 29			X
Calhoun			X
Chester			X
Clarendon 1	X		X
Clarendon 3		X	
Colleton			X
Darlington			X
Dorchester 4			X
Edgefield			X
Florence 1		X	
Florence 3			X
Florence 4			X
Greenwood 50		X	X
Hampton 1	X		X
Hampton 2			X
Jasper			X
Lee			X
Lexington 2			X
Lexington 3			X
Lexington 4			X
Marlboro			X
Newberry			X
Orangeburg 3			X
Orangeburg 4			X
Orangeburg 5			X
Richland 1			X
Saluda			X
Spartanburg 3			X
Spartanburg 6			X
Spartanburg 7			X
Williamsburg			X
TOTAL	3	3	32

Source: SCDE September 4, 2018 CERDEP Data Response.

**Appendix E: Non-public Providers Participating in CERDEP Expansion during
2017-18 School Year**

Extended Year Provided by Non-public Providers

Provider Name	County	Student Enrollment Number as of June 28, 2018
New Jerusalem Missionary Baptist Church CDC	Barnwell	22
The Children's Center	Beaufort	5
The House of Smiles	Berkeley	7
Foster's Child Care Center	Charleston	10
Eagle Academy	Cherokee	11
Richburg Child Development Center	Chester	1
True Saints Christian Day Care	Darlington	12
Little Smurfs Daycare	Georgetown	19
Small Minds of Tomorrow	Georgetown	13
Stephanie's Preschool Blessing & Afterschool	Kershaw	17
Big Blue Marble Academy 4	Laurens	12
Newberry CDC	Newberry	17
Wright's Daycare	Orangeburg	7
Tiny Creators Learning Center	Richland	10
The Leaders of Tomorrow CDC	Richland	7
Big Blue Marble Academy 6	Spartanburg	4
Creative Learning Kids CDC	Spartanburg	9
Sunshine House 16	Spartanburg	5
Sunshine House 17	Spartanburg	10
ZL Madden Head Start, PCA	Spartanburg	18
Love Covenant CDC	Sumter	7
Little Smurf Too	Williamsburg	10
Agape United Daycare	York	12
Total Number of Children Enrolled		245

Source: SC First Steps, September 2018 Response to EOC Data Request.

Summer School Classes Provided by Non-public Providers

Provider Name	Number of Summer School Classes during Summer 2018	County	Enrollment Number as of June 28, 2018
A Bless Lesson Learned	1	Aiken	10
Betty's Creative Corner	1	Aiken	14
Busy Bees Childcare and Preschool	1	Aiken	14
Family Affair Childcare, Aiken	1	Aiken	16
Family Affair Childcare, N. Augusta	1	Aiken	12
Great Creations CDC	1	Aiken	8
Learning on Main	1	Aiken	17
Sunshine House 05	1	Aiken	9
True Foundations	1	Aiken	8
Sunshine House 57	1	Aiken	12
Tiny Treasures Childcare	1	Aiken	5
Allendale Early Learning	1	Allendale	4
Anderson Prep Preschool	1	Anderson	1
Developmental Center for Exceptional Children	1	Anderson	9
Welfare Baptist Church Day Care	1	Anderson	8
Progressive Family Life	1	Bamberg	2
Bedford's Stay and Play	1	Barnwell	3
Betty's Day Care & Preschool	1	Berkeley	5
LaPetite Academy 7514	1	Berkeley	16
Prosperity Childcare	1	Darlington	20
Kids Limited CDC	2	Dillon	27
Little Treasures Christian Learning Ctr	1	Dillon	13
Mothers Love Daycare	1	Dillon	10
Majestic Academy	1	Fairfield	5
Angel's Inn Child Care	1	Florence	6
Antioch 3 & 4K Development Center	1	Florence	14
Excellent Learning Preschool	3	Florence	43
Kids' Corner Early Learning Academy	2	Florence	17
LaPetite Academy 7504	1	Florence	15
Little Creations Learning Center	2	Florence	19
Precious One Learning Center	1	Florence	8
Sunshine House 30	1	Florence	14
Thelma Brown Head Start Center	1	Florence	8
Zion Canaan CDC	1	Florence	16
Sampit Community Center	1	Georgetown	6
Sunshine House 02	1	Greenwood	4
Sunshine House 134	1	Greenwood	10
Children's Keeper Learning Center	1	Hampton	11
Anchors Away CDC	1	Horry	14
ATM Daycare	1	Horry	7
Carolina Forest CDC	1	Horry	15

Provider Name	Number of Summer School Classes during Summer 2018	County	Enrollment Number as of June 28, 2018
Coastal Children's Academy, Inc.	1	Horry	14
Coastal Kids Academy of SC	1	Horry	15
Grissett's CDC	2	Horry	19
Hunter's Ridge Child Care	1	Horry	12
Kiddie Junction	1	Horry	10
Little Blessings CDC	1	Horry	5
Main Street CDC	1	Horry	3
My Sunshine CDC	1	Horry	6
Sherman's Child Development Center	1	Horry	12
The Learning Station	1	Horry	15
Lugoff Early Learning CDC	1	Kershaw	17
Stepping Stones Learning Academy	1	Laurens	9
Thornwell CDC	1	Laurens	16
Bishopville Lee Child Care	1	Lee	17
5 Star Academy	1	Lexington	12
Big Blue Marble Academy 3	1	Lexington	11
Brookland Academy CDC	1	Lexington	11
Hartman Hall CDC	1	Lexington	12
Irmo Academy	1	Lexington	6
La Petite Academy 7503	1	Lexington	4
MEGA CDC	1	Lexington	4
Seven Oaks Kids Academy	1	Lexington	11
Training the Children Christian Center	1	Lexington	2
Wee Care CDC	1	Lexington	4
Agapeland YEP Center	1	Marion	10
McGill's Bundles of Joy	2	Marion	29
Sugar Bears Daycare	1	Marion	7
Troy-Johnson Learning Korner	1	Marion	20
First United Methodist Children's Ctr	1	Marlboro	9
Our Clubhouse	1	Oconee	8
Brighter Children Learning Center	1	Orangeburg	10
J & J Child Care	1	Orangeburg	10
Kidz Will Be Kidz	1	Orangeburg	7
Wright Way CDC	1	Orangeburg	18
Ayes's Kinderoo Care CDC	1	Richland	10
Belvedere Early Learning Center	1	Richland	9
Bethel Learning Center	1	Richland	12

Provider Name	Number of Summer School Classes during Summer 2018	County	Enrollment Number as of June 28, 2018
Care Bear Learning Center	1	Richland	4
Children's Garden	1	Richland	10
Education Express Center for Learning	1	Richland	14
Fantasy Island Child Care	1	Richland	11
Kinder Academy	2	Richland	19
Children's World 5	1	Richland	12
Children's World 7	1	Richland	11
First Nazareth Child Development Ctr	1	Richland	9
Grace Academy	1	Richland	8
LaPetite Academy 7501	1	Richland	13
Myers Nursery & Daycare	1	Richland	7
Spring Valley Early Learning Academy	1	Richland	7
Sunshine House 21	1	Richland	13
Sunshine House 22	1	Richland	19
Sunshine House 23	1	Richland	3
Trinity Learning Center	1	Richland	2
Wonderful Beginnings	1	Richland	7
Abundant Blessings CDC	1	Spartanburg	8
Exceptional Child Academy	1	Spartanburg	9
Legacy Christian School	1	Spartanburg	13
Mother Goose Day Care	1	Spartanburg	4
Precious Little Angels Day Care	1	Spartanburg	14
The Children's Academy	1	Spartanburg	18
Care-A-Lot Day Care Center	1	Sumter	10
Itsy Bitsy Steps Learning	1	Sumter	8
Jehovah Missionary Baptist Church Academic School	2	Sumter	12
JKS Academy, LLC	1	Sumter	6
Kid's Academy	1	Sumter	14
New Beginnings at Warth CCC	1	Sumter	19
Shaw AFB Child Development Center	1	Sumter	10
Vanessa's Playland	2	Sumter	20
Mon-Aetna Baptist Church CEC	1	Union	14
Union Church of God Child Dev Ctr	1	Union	11
Wilson's Daycare	1	Williamsburg	12
House of Joy	1	York	2
Small World Academy	1	York	4
Total	124		1,258

Source: SC First Steps, September 2018 Response to EOC Data Request

Appendix F: 2017-18 Four-Year-Old Children in Poverty Served by Publicly-Funded Programs, by School District or County

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data
Abbeville	2,905		241	69.05%	166	40	87		127	76%			8	92
Aiken	23,812		1,860	62.67%	1,166	219	449	164	832	71%			193	577
Allendale	1,100		88	92.76%	82	21	34		55	67%			9	42
Anderson 1	9,753	34.21%	785	50.03%	393	119			119	30%	30	170	89	
Anderson 2	842	2.95%	68	62.28%	42	10	97		107	254%			8	36
Anderson 3	2,471	8.67%	199	72.71%	145	30	103		133	92%			22	91
Anderson 4	2,783	9.76%	224	60.59%	136	34			34	25%		46	25	
Anderson 5	12,663	44.41%	1,020	64.35%	656	155	396		551	84%			115	373
Bamberg 1	1,313	67.34%	86	78.57%	67	30	20	24	73	109%			13	38
Bamberg 2	637	32.68%	41	91.87%	38	14	26	11	52	136%			6	21
Barnwell 19	590	16.53%	40	89.21%	36	17	19	6	42	117%			3	19
Barnwell 29	872	24.44%	59	76.86%	45	24	19	9	52	116%			4	20
Barnwell 45	2,106	59.02%	142	75.91%	108	59	39	22	120	111%			10	58
Beaufort	21,145		2,012	56.70%	1,141	65			65	6%	4	625	96	
Berkeley	33,482		2,696	57.68%	1,555	190	900	49	1,139	73%			175	1,026
Calhoun	1,665		142	80.31%	114	5	75	11	91	80%			2	68
Charleston	46,140		4,799	53.27%	2,556	299			299	12%	10	1,439	401	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data
Cherokee	8,499		663	72.28%	479	112	154	22	288	60%			57	334
Chester	5,069		363	78.03%	283	178	196	11	385	136%			40	112
Chesterfield	6,884		507	74.10%	376	112	136	7	255	68%			14	236
Clarendon 1	715	15.16%	49	90.50%	44	12	39		51	115%			3	38
Clarendon 2	2,789	59.14%	190	86.12%	163	46	89		135	82%			11	99
Clarendon 3	1,213	25.71%	83	62.23%	51	20	34		54	105%			5	52
Colleton	5,429		454	82.05%	373	30	230		260	70%			37	217
Darlington	9,683		743	77.04%	572	137	287	41	465	81%			68	275
Dillon 3	1,574	28.05%	119	71.39%	85	22	67	14	103	121%			15	93
Dillon 4	4,039	71.96%	307	85.79%	263	57	120	37	214	81%			38	118
Dorchester 2	25,481	91.83%	1,713	50.50%	865	5			5	1%	7	393	93	
Dorchester 4	2,268	8.17%	152	75.01%	114	0	97		97	85%			8	110
Edgefield	3,364		185	64.98%	120	16	113		129	107%			11	114
Fairfield	2,498		220	85.73%	189		150		150	80%			8	128
Florence 1	15,899	71.58%	1,215	66.36%	806	140	420	156	716	89%			208	320
Florence 2	1,117	5.03%	85	71.07%	61	10	42	11	63	104%			15	44
Florence 3	3,363	15.14%	257	87.90%	226	30	97	33	160	71%			44	94
Florence 4	644	2.90%	49	91.92%	45	6	31	6	43	95%			8	28
Florence 5	1,188	5.35%	91	69.76%	63	10	39	12	61	97%			16	39

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data
Georgetown	9,063		528	68.39%	361	86	319	50	455	126%			56	265
Greenville	73,485		6,409	53.22%	3,411	563			563	17%		1,346	486	
Greenwood 50	8,668	78.25%	672	72.26%	486	106	217	39	363	75%			64	263
Greenwood 51	883	7.98%	69	76.04%	52	11	38	4	53	101%			7	54
Greenwood 52	1,525	13.77%	118	60.54%	72	19	40	7	66	92%			11	36
Hampton 1	2,177	76.47%	158	75.84%	119	18	92	11	120	101%			11	89
Hampton 2	670	23.55%	49	92.09%	45	5	37	3	46	102%			3	37
Horry	43,357		3,170	65.35%	2,072	142	16	297	455	22%		905	492	15
Jasper	2,498		369	87.33%	322	45	150	17	212	66%			18	145
Kershaw	10,507		728	59.08%	430	74		39	113	26%		104	64	
Lancaster	13,017		990	55.28%	547	86			86	16%		149	98	
Laurens 55	5,493	65.33%	517	72.93%	377	16	201		217	57%			41	251
Laurens 56	2,916	34.67%	274	79.39%	218	8	58		66	30%			21	79
Lee	1,857		188	91.43%	172	39	57	20	116	67%			29	68
Lexington 1	25,511	45.58%	1,460	44.57%	651	33			33	5%	120	333	139	
Lexington 2	8,603	15.37%	492	73.84%	364	11	227		238	66%			47	208
Lexington 3	1,940	3.47%	111	71.14%	79	3	107		110	139%			11	49
Lexington 4	3,191	5.70%	183	79.22%	145	4	226		230	159%			17	211

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data
Lexington 5	16,724	29.88%	957	41.50%	397	22			22	5%		176	91	
McCormick	728		62	84.18%	52	12	17		29	56%			1	26
Marion	4,380		356	90.70%	323	60	135	77	272	84%			123	156
Marlboro	3,817		292	83.99%	245	85	129	9	223	91%			33	120
Newberry	5,813		398	69.68%	277	78	154	30	262	94%			24	101
Oconee	10,037		722	64.33%	464	72	330	24	426	92%			82	387
Orangeburg 3	2,522	20.58%	196	89.25%	175	15	131	14	160	91%			23	137
Orangeburg 4	3,495	28.52%	272	77.34%	210	21	154	19	194	92%			32	162
Orangeburg 5	6,239	50.91%	485	85.82%	416	37	285	35	357	86%			58	289
Pickens	15,704		1,169	59.28%	693	168			168	24%	2	317	125	
Richland 1	22,851	45.62%	2,123	75.45%	1,602	70	414	216	700	44%			274	909
Richland 2	27,243	54.38%	2,531	52.65%	1,333	84			84	6%		457	327	
Saluda	2,232		218	75.14%	164	35	78	11	124	76%			6	77
Spartanburg 1	4,857	10.47%	400	57.70%	231	40			40	17%	119	117	36	
Spartanburg 2	9,754	21.03%	803	57.31%	460	81			81	18%		162	72	
Spartanburg 3	2,769	5.97%	228	69.65%	159	23	113		136	86%			21	93
Spartanburg 4	2,666	5.75%	220	65.98%	145	22	110		132	91%			20	151

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data
Spartanburg 5	8,241	17.77%	679	54.60%	371	68			68	18%		167	61	
Spartanburg 6	10,973	23.66%	904	65.30%	590	91	337		428	73%			81	397
Spartanburg 7	7,124	15.36%	587	70.71%	415	59	175		234	56%			53	201
Sumter	16,077		1,386	72.71%	1,008	250	517	132	899	89%			234	516
Union	3,868		304	76.85%	234	81		36	117	50%		63	24	
Williamsburg	3,738		352	90.44%	318	100	144	42	286	90%			65	135
York 1	5,004	11.25%	332	67.26%	224	53	174		227	102%	17		31	194
York 2	7,494	16.85%	498	36.20%	180	79			79	44%		120	46	
York 3	17,086	38.41%	1,135	60.06%	682	181			181	27%		373	105	
York 4	14,902	33.50%	990	21.47%	213	158			158	74%		65	92	
SC Public Charter School District	25,046	56.30%	1,664	53.50%	890				0	0%		60		
SC School for Deaf and Blind												5		
TOTAL			58,694	61.18%	36,018	5,589	9,787	1,778	17,154	48%	309	7,592	5,633	10,733

Sources of Data:

- Column 2: Pupil Enrollment SY 2018 based on 135-Day Average Daily Membership accessed at: <https://apps.ed.sc.gov/agency/cfo/finance/Financial-Services/reports/Reports/PARTS/MembershipCountsForm>.
- Column 3: Calculated by dividing district pupil enrollment (Column 2) by the total enrollment number for the county.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School District	Pupil Enrollment	Percent of County Pupil Enrollment	Estimated Number of 4-Year-Olds	District Poverty Index	Estimated Number of 4-Year-Olds in Poverty	4-Year-Olds Served in Head Start	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) By District Payments	Non-Public State Funded Full-Day 4K Enrolled in a Center in a CERDEP-Eligible District (First Steps CERDEP)	Subtotal of 4 Year Olds Receiving Head Start or CERDEP (Columns 7-9)	Percent of 4-Year-Olds in Poverty Receiving Services	Non-Public State-Funded Full-Day 4K Enrolled in Center in a non-CERDEP District (First Steps CERDEP)	4-Year-Olds in Poverty (Non CERDEP Districts)	4-Year-Olds in SC Child Care Voucher System	Public Schools State-Funded Full-Day 4K (SCDE CERDEP) by Assessment Data

- Column 4: Estimated number of four-year-olds is based on births by county in year 2013 as reported by DHEC <http://scangis.dhec.sc.gov/scan/bdp/tables/birthtable.aspx>; -Column 5: Poverty Index is the district poverty index for school year 2017-18 as reported on the 2017 district report card ratings. May be accessed at <https://ed.sc.gov/data/report-cards/state-report-cards/2017/data-files-for-researchers-2017/poverty-index/>
- Column 6: Estimated number of four-year-olds in poverty is the estimated number of four-year-olds multiplied by the Poverty Index. If multiple districts in one county, the average poverty index was used.
- Column 7: Head Start - South Carolina Head Start Census, May 15, 2018, as provided by the SC Head Start Collaboration Office. Data provided by county. EOC analysis estimated number of Head Start children served in each school district by multiplying the total number served by county times the percent of county pupil enrollment (Column 3).
- Column 8: Based FY 2017-18 Current Allocations to School Districts (through October 2017 Monthly Payments) accessed at <https://ed.sc.gov/finance/financial-services/payment-information/monthly-payments-to-districts>. District CERDEP instructional costs (Revenue Codes 3134 and 3541) divided by \$4,422 per pupil reimbursement rate for 2017-18.
- Columns 9 and 12: First Steps CERDEP data are indicated in Columns 9 and 12. First Steps data do not include student district of residence. Where the First Steps data indicated enrollment in a center located in a CERDEP district, data were included in Column 9. If enrollment was in a center located in a non-CERDEP district, data included in Column 12.
- Column 10: Subtotal of four-year-olds receiving formal services, including Head Start, public CERDEP managed by SCDE and non-public CERDEP managed by First Steps where students were enrolled in a center in a district that participated in CERDEP.
- Column 11: Percent of four-year-olds in poverty calculated by dividing "Subtotal of four-year-olds receiving formal services" (Column 10) by "Number of four-year-olds in poverty" (Column 6).
- Column 13: Number of 4K students identified as being in poverty who were assessed at beginning- and end-of-year and attended public schools in districts not participating in CERDEP or not eligible to participate in CERDEP.
- Column 14: SC's Child Care Voucher System for four-year-olds being served between 7/1/17 to 6/30/18, as provided by the Department of Social Services. Data provided by county. EOC analysis estimated number of children receiving vouchers in each school district by multiplying the total number of vouchers per county times the percent of county pupil enrollment.
- Column 15: Estimate of Public Schools State-Funded Full-Day 4K (SCDE CERDEP) is based on number of CERDEP students with beginning- and end-of-year assessment data.

II. Impact: Student-Level Assessment Results, 2017-18 (USC)

In Fiscal Year 2017-18 the General Assembly directed funds toward assessment and related professional development in prekindergarten. These tests measure the early literacy and language development of children in publicly-funded prekindergarten programs. Proviso 1A.63 states:

Each school district and non-public provider participating in a publicly-funded prekindergarten program will administer one of the formative assessments selected by the department to each child eligible for and enrolled in a publicly-funded prekindergarten program during the first forty-five days of the school year and during the last forty-five days of the school year. Accommodations that do not invalidate the results of these assessments must be provided in the manner set forth by the student's Individualized Education Program or 504 Accommodations Plan. The department will provide the assessment data to the Education Oversight Committee. The results of the assessment and the developmental intervention strategies recommended or services needed to address the child's identified needs must also be provided, in writing, to the parent or guardian. The assessment may not be used to deny a student to admission to prekindergarten.²⁰

The South Carolina Department of Education (SCDE) selected three assessments that could be used to assess children in publicly-funded four-year-old kindergarten (4K or CERDEP):

- Individual Growth and Development Indicators of Early Literacy (IGDIs-EL) 2nd Edition Universal Screening (McConnell, Bradfield, & Wackerle-Hollman, 2014);
- Phonological Awareness Literacy Screening (PALS-PreK) (Invernizzi, Sullivan, Meier, & Swank, 2013); and
- Teaching Strategies GOLD, Birth through Third Grade Edition (B3-GOLD; Teaching Strategies GOLD, 2016). For the past three years, training for each of these assessments was provided by the SCDE to school district personnel, who, in turn, trained local district teachers. Non-public CERDEP educators were trained by personnel from Teaching Strategies.

Introduction

All children attending state publicly-funded prekindergarten during the 2017-18 school year were required to be assessed by the same measure at the beginning-of-year (fall) and at the end-of-year (spring). The South Carolina Department of Education (SCDE) provided the data to the EOC and USC on August 31, 2018. This dataset included merged data from the fall and spring test administrations for all prekindergarten students. The data set was analyzed using the same software (SAS) used by SCDE; however, prior to analysis, data were screened to remove cases, which may indicate problematic data (e.g., duplicate identification data, a kindergarten student receiving a prekindergarten test).

²⁰ Proviso 1A.63 of the 2017-18 General Appropriation Act

Members of the USC evaluation team analyzed the 2017-18 prekindergarten data set in December 2018 to provide information for this report. Numbers in the tables were taken from the dataset and include all relevant proportional data for a category and summarize as much of the information as possible from the dataset. Therefore, the numbers may be inconsistent across tables due to factors such as data missing in a specific category, incorrect entry of figures (e.g., keystroke errors, errant recording of child responses), attrition due to child factors (e.g., absences, or a child present to take proportions of a test, but not completing the entire test), or attrition due to mobility (e.g., families moving out of state before conclusion of the school year). The numbers in the report should be taken as approximate values providing an overview of the language and literacy skills of South Carolina’s prekindergarten children. As shown in Table 12, roughly 25,000 South Carolina prekindergartners were assessed in school year 2017-18, with slightly more children tested at fall testing than for spring testing.

Table 12
Ethnicities of 4K Children Assessed in 2017-18 School Year

	Fall 2017	Spring 2018
Grade Level	Frequency	Frequency
4K	26,048	25,396

Table 13 shows the ethnicities for prekindergarten (4K) students across South Carolina. The population of preschool children tested was racially/ethnically diverse, and most of the children were African American, White, or Hispanic.

Table 13
Ethnicities of 4K Children Assessed in 2017-18 School Year

Ethnicity	Fall 2017		Spring 2018	
	Frequency	Percent	Frequency	Percent
Asian	388	1.5%	378	1.5%
African American	10,632	41.0%	10,407	41.2%
Hispanic	3,232	12.5%	3,174	12.6%
American Indian	92	0.4%	87	0.3%
Multiracial	1,362	5.3%	1,307	5.2%
Pacific Islander	36	0.1%	33	0.1%
White	10,186	39.3%	9,986	39.1%
Total	25,928	100.0%	25,282	100.0%

Table 14 provides numbers and percentages of prekindergarten children tested during the 2017-18 school year by each of the three authorized instruments. The same assessment given in the fall and spring may provide the percentages of children who made improvements in language and literary skills over the course of the academic year. Nevertheless, comparison of prekindergartners language and literacy results is complicated by the use of three different test instruments, each having unique literacy and language skill domains, performance tasks, scoring systems, and performance standards.

Table 14
Number and Percentage of Children by Test in 2017-18 School Year

Test Name	Fall 2017		Spring 2018	
	Frequency	Percent	Frequency	Percent
B3-GOLD	6,882	26.4%	6,684	26.3%
PALS-PreK	10,934	42.0%	10,547	41.5%
IGDIs-EL	8,232	31.6%	8,165	32.2%
Total 4K Students	26,048	100.0%	25,396	100.0%

Table 15 indicates the numbers and percentages of children in CERDEP and Non-CERDEP programs as well as the numbers and percentages of CERDEP prekindergartners served in non-public (First Steps) and public (SCDE) classrooms.²¹ It should be noted that non-public prekindergartners (First Steps) only were administered the B3-GOLD. Preschoolers in public programs could be evaluated by any of the three instruments, the districts selecting the instrument for use within schools.

Table 15
Number of 4K Children Tested by Setting in the 2017-18 School Year

4K Setting	Fall 2017		Spring 2018	
	Frequency	Percent	Frequency	Percent
Non-public Programs	2,202	8.5%	2,111	8.3%
Public Programs	23,846	91.6%	23,285	91.7%
Total	26,048	100.0%	25,396	100.0%
Non-CERDEP	11,770	45.2%	11,357	44.7%
CERDEP	14,278	54.8%	14,309	55.3%
Total	26,048	100.0%	25,396	100.0%

Prekindergarten (4K) Assessment Results

Individual Growth and Development Indicators of Early Literacy (IGDIs-EL)

IGDIs-EL is an individualized and standardized language and literacy measure designed to support the identification of prekindergartners (ages 4 years, 0 months to 4, years, 11 months) that need additional instruction and intervention in oral language, phonological awareness, alphabet knowledge, and comprehension. IGDIs-EL subtests include:

- Picture Naming (oral language and vocabulary),
- Rhyming (phonological awareness),
- Sound Identification (alphabet knowledge),
- “Which One Doesn’t Belong” (comprehension), and
- Alliteration (phonological awareness). Note the assessment developers advise against administration of Alliteration in the fall).

Each of the five subtests has separate assessment protocols for three testing occasions (i.e., fall,

²¹ “Non-CERDEP” refers to districts not eligible to participate in CERDEP or choosing not to participate.

winter, and spring). In South Carolina, teachers administer IGDIs-EL directly to children in the fall (beginning of year) and spring (end of year). Each IGDIs-EL subtest has three categories of performance: 1. Strong Progress, 2. Moderate Progress, and 3. At Risk Progress.

Table 16 shows the percentages of children’s progress on IGDIs-EL by these three performance categories. Readers should note that the bolded percentages in all the following tables indicate the test performance category with the largest proportions of children at a given test time point (i.e., the largest percentage at the fall and spring testings). Because Strong Progress and Moderate Progress indicate proficient status in literacy and language skills, we refer to these categories as “proficient” in discussion and as the last column of the table.

All four of subtests that include fall and spring assessments showed improvements in the proportions of children proficient by the spring. Specifically, during the spring assessment period (i.e., end of year) the proficient categories held substantial majorities of children: Picture Naming 90 percent, Rhyming 75 percent, Sound Identification 80 percent, and “Which One Doesn’t Belong?” 89 percent. From fall to spring testing, the percentages of prekindergartners performing in the At-Risk Progress category decreased accordingly. With respect to Alliteration, which is only assessed in the spring, 94 percent of the children performed in the combined proficient categories.

Table 16
IGDIs-EL Subtest Percentages by Benchmark and Time Points in 2017-18 School Year

Testing Period	Children	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress*
Picture Naming					
Fall	7,999	18%	51%	31%	69%
Spring	8,112	57%	33%	10%	90%
Rhyming					
Fall	6,513	16%	30%	54%	46%
Spring	7,895	50%	24%	25%	74%
Sound Identification					
Fall	7,382	14%	32%	54%	46%
Spring	8,061	50%	30%	20%	80%
“Which One Doesn’t Belong?”					
Fall	6,748	24%	35%	41%	59%
Spring	7,913	59%	30%	11%	89%
Alliteration					
Fall*					
Spring	8,029	68%	26%	6%	94%

*Notes: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress.

Table 17 delineates the three categories of progress for African American, Hispanic, and White children. Again, in the proficient categories, improvements in the children’s progress from the fall to spring assessment are evident for the four subtests given at the beginning and end of the year. Specifically, by spring, African American (92 percent), Hispanic (73 percent), and White (95 percent) children were in the proficient range on Picture Naming. For the Rhyming subtest, proportions were African American (73 percent), Hispanic (62 percent), and White (81 percent). On Sound Identification, proficient proportions were African American (78 percent), Hispanic (76 percent), and White (83 percent) children. The “Which One Doesn’t Belong?” subtest reported

African American (88 percent), Hispanic (85 percent), and White (91 percent) in the proficient range. For the spring testing of Alliteration, African American (94 percent), Hispanic (92 percent), and White (96 percent) were in the proficient range. Over the set of IGDIs-EL subscales, Hispanic prekindergartners had lower proficient proportions than African Americans and White children. Proportions of African American prekindergartners in the proficient range were lower than White children. Except for the rhyming subtest, however, the differences were slight. Across all racial/ethnic groups, most students were at Moderate or Strong Progress levels at the end of the school year.

Table 17
IGDIs-EL Subtest Percentages by Benchmark and Ethnicity
in 2017-18 School Year

Ethnicity	Testing Period	Children	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress*
Picture Naming						
African American	Fall	3,315	15%	55%	31%	70%
	Spring	3,299	56%	36%	8%	92%
Hispanic	Fall	1,081	5%	28%	67%	33%
	Spring	1,154	31%	42%	27%	73%
White	Fall	3,052	25%	56%	19%	81%
	Spring	3,119	68%	28%	5%	96%
Rhyming						
African American	Fall	2,677	10%	30%	60%	40%
	Spring	3,212	47%	26%	27%	73%
Hispanic	Fall	798	6%	24%	70%	30%
	Spring	1,106	32%	30%	38%	62%
White	Fall	2,591	25%	31%	43%	56%
	Spring	3,049	60%	21%	19%	81%
Sound Identification						
African American	Fall	3,072	12%	32%	56%	44%
	Spring	3,275	48%	30%	22%	78%
Hispanic	Fall	982	9%	27%	65%	36%
	Spring	1,148	46%	30%	24%	76%
White	Fall	2,806	17%	33%	50%	50%
	Spring	3,097	53%	30%	17%	83%
“Which One Doesn’t Belong?”						
African American	Fall	2,760	17%	35%	47%	52%
	Spring	3,219	55%	33%	12%	88%
Hispanic	Fall	841	18%	26%	55%	44%
	Spring	1,098	51%	34%	15%	86%
White	Fall	2,681	32%	38%	30%	70%
	Spring	3,070	66%	25%	8%	91%
Alliteration*						
African American	Spring	3,261	66%	27%	6%	93%
Hispanic	Spring	1,138	56%	37%	8%	93%
White	Spring	3,094	74%	21%	4%	95%

*Notes: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress.

Table 18 shows the percentages of the three categories of progress on IDGIs-EL for children in Non-CERDEP and CERDEP classrooms. Again, proportions of children in the proficient categories increased on the four subtests given at the end of the year. On Picture Naming Non-CERDEP and CERDEP prekindergartners had proficient proportions of 90 percent and 91 percent, respectively. With respect to Rhyming, Non-CERDEP and CERDEP children had proficient percentages of 75 percent and 72 percent, respectively. The Sound Identification subtest proficient proportions for Non-CERDEP and CERDEP children were 82 percent and 76 percent, respectively. For the “Which One Doesn’t Belong?” subtest, proportions for Non-CERDEP and CERDEP children were 89 percent and 90 percent, respectively. For the spring Alliteration subtest, the proportions of Non-CERDEP and CERDEP children were 94 percent and 94 percent, respectively. Only the Sound Identification subtest showed a difference above 5 percentage points between Non-CERDEP and CERDEP prekindergartners that were favorable for the Non-CERDEP children (6 percent higher). Except for Sound Identification, CERDEP and Non-CERDEP students had similar fall and spring assessment results.

Table 18
IGDIs-EL Subtest Percentages by Benchmark and CERDEP Status
in 2017-18 School Year

CERDEP Status	Testing Period	Children	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress*
Picture Naming						
Non-CERDEP	Fall	5,184	17%	50%	33%	67%
	Spring	5,252	57%	33%	10%	90%
CERDEP	Fall	2,815	18%	53%	29%	71%
	Spring	2,860	57%	34%	9%	91%
Rhyming						
Non-CERDEP	Fall	4,108	17%	28%	55%	45%
	Spring	5,079	51%	24%	24%	75%
CERDEP	Fall	2,405	15%	32%	53%	47%
	Spring	2,816	48%	24%	28%	72%
Sound Identification						
Non-CERDEP	Fall	4,748	15%	31%	55%	46%
	Spring	5,212	53%	29%	18%	82%
CERDEP	Fall	2,634	13%	34%	53%	47%
	Spring	2,849	44%	32%	24%	76%
“Which One Doesn’t Belong?”						
Non-CERDEP	Fall	4,252	23%	36%	42%	59%
	Spring	5,093	58%	31%	11%	89%
CERDEP	Fall	2,496	25%	35%	40%	60%
	Spring	2,820	62%	28%	10%	90%
Alliteration*						
Non-CERDEP	Spring	5,185	69%	25%	5%	94%
CERDEP	Spring	2,844	66%	28%	6%	94%

*Notes: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress.

Longitudinal Comparisons: IGDIs-EL

As the same version of the IGDIs-EL test was administered in South Carolina in successive years, prekindergartners' scores can be compared longitudinally. The purpose of the longitudinal comparisons is to examine trends in student performance. Strong Progress and Moderate Progress percentages are combined to create a Proficient Progress column for discussion.

Table 19 below provides scores on IGDIs-EL across three consecutive school years for the spring scores. IGDIs-EL scores have increased slightly from the 2016 to the 2018 administrations. Scores were largely above 75% for all subscales and time points. The Rhyming and Sound Identification subtests exhibited lower percentages than other tests; however, scores from these two tests still improved across the three-year testing period.

Table 19
IGDIs-EL Subtest Percentages by Benchmark and Time Points
for the 2015-2016, 2016-2017 and 2017-2018 Academic Years

Testing Period	Students	Strong Progress	Moderate Progress	At risk Progress	Proficient Progress
Picture Naming					
2016 Spring	8,093	50%	37%	13%	87%
2017 Spring	7,915	55%	35%	10%	90%
2018 Spring	8,112	57%	33%	10%	90%
Rhyming					
2016 Spring	8,025	46%	24%	30%	70%
2017 Spring	7,735	49%	24%	27%	73%
2018 Spring	7,895	50%	24%	25%	74%
Sound Identification					
2016 Spring	8,072	45%	31%	24%	76%
2017 Spring	7,783	48%	30%	22%	78%
2018 Spring	8,061	50%	30%	20%	80%
“Which One Doesn’t Belong?”					
2016 Spring	8,009	54%	33%	14%	87%
2017 Spring	7,767	58%	30%	11%	88%
2018 Spring	7,913	59%	30%	11%	89%
Alliteration					
2016 Spring	6,413	68%	27%	6%	95%
2017 Spring	7,847	67%	27%	6%	94%
2018 Spring	8,029	68%	26%	6%	94%

*Note: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress.

Table 20 below provides scores over time on IGDIs-EL benchmarks by race/ethnicity of prekindergartners. IGDIs-EL scores showed increases from the 2016 to the 2018 administrations across all ethnicity groupings. Among the subscales, the largest increase was observed for Hispanic students for the Picture Naming subscale with scores increasing 9 percentage points from 2016 to 2018.

Table 20
IGDIs-EL Subtest Percentages by Benchmark and Ethnicity
in 2015-2016, 2016-2017 and 2017-2018 School Years

Ethnicity	Testing Period	Students	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress
Picture Naming						
African American	2016 Spring	3,413	52%	39%	10%	91%
	2017 Spring	3,348	55%	37%	8%	92%
	2018 Spring	3,299	56%	36%	8%	92%
Hispanic	2016 Spring	1,229	22%	42%	36%	64%
	2017 Spring	1,198	33%	41%	27%	74%
	2018 Spring	1,154	31%	42%	27%	73%
White	2016 Spring	2,848	61%	32%	7%	93%
	2017 Spring	2,848	66%	29%	5%	95%
	2018 Spring	3,119	68%	28%	5%	96%
Rhyming						
African American	2016 Spring	3,379	43%	26%	31%	69%
	2017 Spring	3,272	45%	26%	29%	71%
	2018 Spring	3,212	47%	26%	27%	73%
Hispanic	2016 Spring	1,218	26%	29%	45%	55%
	2017 Spring	1,166	31%	28%	41%	59%
	2018 Spring	1,106	32%	30%	38%	62%
White	2016 Spring	2,835	59%	19%	22%	78%
	2017 Spring	2,792	61%	20%	19%	81%
	2018 Spring	3,049	60%	21%	19%	81%
Sound Identification						
African American	2016 Spring	3,404	42%	32%	26%	74%
	2017 Spring	3,329	43%	32%	25%	75%
	2018 Spring	3,275	48%	31%	22%	79%
Hispanic	2016 Spring	1,227	41%	30%	28%	71%
	2017 Spring	1,202	47%	29%	25%	76%
	2018 Spring	1,148	46%	30%	24%	76%
White	2016 Spring	2,841	51%	29%	20%	80%
	2017 Spring	2,832	53%	29%	18%	82%
	2018 Spring	3,097	53%	30%	17%	83%
“Which One Doesn’t Belong?”						
African American	2016 Spring	3,375	52%	34%	14%	86%
	2017 Spring	3,296	56%	31%	13%	87%
	2018 Spring	3,219	55%	33%	12%	88%
Hispanic	2016 Spring	1,208	43%	34%	22%	77%
	2017 Spring	1,163	50%	33%	17%	83%
	2018 Spring	1,098	51%	34%	15%	85%

Ethnicity	Testing Period	Students	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress
White	2016 Spring	2,831	60%	30%	10%	90%
	2017 Spring	2,801	65%	28%	7%	93%
	2018 Spring	3,070	66%	25%	8%	91%
Alliteration						
African American	2016 Spring	2,918	66%	29%	6%	95%
	2017 Spring	3,324	66%	27%	7%	93%
	2018 Spring	3,261	66%	27%	6%	93%
Hispanic	2016 Spring	771	54%	38%	8%	92%
	2017 Spring	1,192	55%	37%	8%	92%
	2018 Spring	1,138	56%	37%	8%	93%
White	2016 Spring	2,272	75%	20%	5%	95%
	2017 Spring	2,871	73%	22%	4%	95%
	2018 Spring	3,094	74%	21%	4%	95%

*Note: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress

Table 21 below provides scores over time on IGDIs-EL benchmarks by CERDEP status. Again, IGDIs-EL scores showed increases from the 2016 to the 2018 administrations. Generally, there were increases for both groups on most subscales over the three-year period.

Table 21
IGDIs-EL Subtest Percentages by Benchmark and CERDEP
in 2015-2016, 2016-2017 and 2017-2018 School Years

CERDEP Status	Testing Period	Students	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress
Picture Naming						
Non-CERDEP	2016 Spring	5,325	49%	37%	14%	86%
	2017 Spring	5,034	55%	34%	11%	89%
	2018 Spring	5,252	57%	33%	10%	90%
CERDEP	2016 Spring	2,753	52%	36%	12%	88%
	2017 Spring	2,881	55%	36%	9%	91%
	2018 Spring	2,860	57%	34%	9%	91%
Rhyming						
Non-CERDEP	2016 Spring	5,277	47%	23%	30%	70%
	2017 Spring	4,886	50%	24%	26%	74%
	2018 Spring	5,079	51%	25%	24%	76%
CERDEP	2016 Spring	2,743	45%	25%	30%	70%
	2017 Spring	2,849	47%	24%	29%	71%
	2018 Spring	2,816	48%	24%	28%	72%
Sound Identification						
Non-CERDEP	2016 Spring	5,314	47%	30%	23%	77%
	2017 Spring	5,011	52%	30%	18%	82%
	2018 Spring	5,212	53%	29%	18%	82%

CERDEP Status	Testing Period	Students	Strong Progress	Moderate Progress	At Risk Progress	Proficient Progress
CERDEP	2016 Spring	2,753	42%	32%	26%	74%
	2017 Spring	2,872	40%	30%	30%	70%
	2018 Spring	2,849	44%	32%	24%	76%
“Which One Doesn’t Belong?”						
Non-CERDEP	2016 Spring	5,266	53%	32%	15%	85%
	2017 Spring	4,918	59%	30%	11%	89%
	2018 Spring	5,093	58%	32%	11%	90%
CERDEP	2016 Spring	2,738	54%	34%	11%	88%
	2017 Spring	2,849	57%	32%	11%	89%
	2018 Spring	2,820	62%	28%	10%	90%
Alliteration						
Non-CERDEP	2016 Spring	3,663	68%	26%	6%	94%
	2017 Spring	4,988	70%	25%	5%	95%
	2018 Spring	5,185	69%	25%	5%	94%
CERDEP	2016 Spring	2,745	68%	27%	5%	95%
	2017 Spring	2,859	63%	30%	7%	93%
	2018 Spring	2,844	66%	28%	6%	94%

*Notes: Test developer recommends teachers do not administer Alliteration in the fall to four-year-old students; Proficient Progress is the sum of Strong and Moderate Progress.

IGDIs-EL Findings

Finding 8: As noted in Table 16, teachers administered IGDIs EL to approximately 8,000 prekindergartners in fall 2017 and spring 2018.

Finding 9: Five areas were assessed: 1. Picture Naming, 2. Rhyming, 3. Sound Identification, 4. “Which One Doesn’t Belong?” and 5. Alliteration.

Finding 10: When using the combined Strong Progress and Moderate Progress categories, the overwhelming proportion of prekindergartners generally met publisher’s spring expected scores on subtests: 1. Picture Naming (90 percent), 2. Rhyming (74 percent), 3. Sound Identification (80 percent), 4. “Which One Doesn’t Belong?” (89 percent), and 5. Alliteration (94 percent).

Finding 11: On the spring 2018 assessment, African American and White prekindergartners had similar proportions on most IGDIs-EL subtests. The Rhyming subtest was the exception, with African American children scoring 8 percent lower than White children.

Finding 12: On the spring 2018 assessments, Hispanic children had lower proportions than African American and White prekindergartners on two subtests. With the Picture Naming subtest proportion Hispanic were 19 percent lower than African American and 23 percent below White prekindergartners. For the Rhyming subtests Hispanic percentages were lower by 11 percent compared to African American and with 19 percent with White children.

Finding 13: Except for Sound Identification, CERDEP and Non-CERDEP students had similar fall and spring assessment results. The Spring testing of Sound Identification exhibited the largest difference in which Non-CERDEP exceeded CERDEP children by a proportion of 6 percent.

Finding 14: Table 19 showed improvements over time for four of the five IGDIs-EL subtests: Picture Naming, Rhyming, Picture Identification, and “Which One Doesn’t Belong?”

Finding 15: Longitudinal results shown in Table 20 a slight increase from spring 2016 to spring 2018 by race. An exception is Hispanic students, who increased by 9 percent on Picture Naming and by 7 percent on Rhyming over the three-year period.

Finding 16: CERDEP and Non-CERDEP students showed slight improvement over the 2016 to 2018 period. Scores were similar between the two groups.

Phonological Awareness Literacy Screening Prekindergarten (PALS-PreK)

PALS-PreK is an individualized and standardized assessment for 4-year-olds to better understand their language and literacy skills in eight areas. The PALS-PreK eight subtests include:

- Name Writing,
- Alphabet-Upper Case,
- Alphabet-Lower Case,
- Letter Sounds,
- Beginning Sound Awareness,
- Print and Word Awareness,
- Rhyme Awareness, and
- Nursery Rhyme Awareness.

Each of the subtests has separate assessment protocols for three testing occasions (i.e., fall, winter, and spring). At the end of the year, assessment developers provide developmental ranges for each of the eight subtests.

In South Carolina, teachers administer PALS-PreK directly to children in the fall (beginning of year) and spring (end of year). Each PALS-PreK subtest has three categories of performance: 1. Exceed Expected Range, 2. Within Expected Range, and 3. Below Expected Range. Table 22 shows the percentage of children's progress on PALS-PreK by these three performance categories. The proportion of Exceed Expected Range and Within Expected Range indicates children's proficiency in literacy and language skills. Similar to IGDIs-EL, we have combined them for discussion into one category, Proficient Expected Range.

All eight of the subtests showed improvement in the proportions of children for the combined Exceed Expected Range and Within Expected Range categories. Specifically, during the spring during the end of year assessment, the Proficient Expected Range combined categories yielded: 1. Name Writing (92 percent), 2. Alphabet-Upper Case (86 percent), 3. Alphabet-Lower Case (88 percent), 4. Letter Sounds (88 percent), 5. Beginning Sound Awareness (87 percent), 6. Print and Word Awareness (83 percent), 7. Rhyme Awareness (81 percent), and 8. Nursery Rhyme Awareness (87 percent). Again, the bolded percentages represent the largest proportions in fall and spring assessments across the three categories reported by the test developer.

Table 22
PALS-PreK Percentages by Expected Ranges
in 2017-18 School Year

Testing Period	Children	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range*
Name Writing					
Fall	10,897	0%	27%	73%	27%
Spring	10,512	0%	92%	8%	92%
Alphabet-Upper Case					
Fall	10,919	13%	12%	75%	15%
Spring	10,530	70%	16%	14%	86%
Alphabet-Lower Case					
Fall	10,381	13%	12%	76%	25%
Spring	10,470	74%	14%	13%	88%
Letter Sounds					
Fall	10,267	10%	7%	83%	17%
Spring	10,448	79%	9%	12%	88%
Beginning Sound Awareness					
Fall	10,878	13%	17%	70%	30%
Spring	10,506	70%	17%	13%	87%
Print and Word Awareness					
Fall	10,871	1%	18%	81%	19%
Spring	10,485	29%	54%	17%	83%
Rhyme Awareness					
Fall	10,803	9%	18%	73%	27%
Spring	10,494	56%	25%	19%	81%
Nursery Rhyme Awareness					
Fall	10,783	0%	28%	72%	28%
Spring	10,446	0%	87%	13%	87%

*Note: Proficient Expected Range is the sum of Exceed and Within Expected Range.

Table 23 delineates the three categories of progress on PALS-PreK for African American, Hispanic, and White children. Again, in the proficient categories, improvements in the children's progress are evident from the fall to spring assessment. Specifically, by spring, most African American (91 percent), Hispanic (94 percent), and White (93 percent) children were in the proficient range on Name Writing. In addition, for the Alphabet-Upper Case subtest proportions were African American (87 percent), Hispanic (82 percent), and White (87 percent). For prekindergartners the Alphabet-Lower Case subtest percentages were African American (87 percent), Hispanic (84 percent), and White (88 percent) children. On Letter Sounds, African American (87 percent), Hispanic (86 percent), and White (89 percent) children had proficient proportions. The Beginning Sound Awareness subtest found proficient proportions, for African American (85 percent), Hispanic (82 percent), and White (89 percent) prekindergartners.

Proportions for Print and Word Awareness were African American (80 percent), Hispanic (75 percent), and White (87 percent). The Rhyme Awareness subtest found most African American (77 percent), Hispanic (73 percent), and White (86 percent) prekindergartners were also in the proficient category. Finally, for the Nursery Rhyme Awareness subtest proportions were African American (88 percent), Hispanic (75 percent), and White (90 percent). Again, the bolded percentages represent the largest proportions in fall and spring assessments for the three categories reported by the test developer.

Table 23
PALS-PreK Percentages by Expected Ranges and Ethnicity
in 2017-18 School Year

Ethnicity	Testing Period	Children	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range *
Name Writing						
African American	Fall	3,908	0%	26%	74%	26%
	Spring	3,812	0%	91%	9%	91%
Hispanic	Fall	1,258	0%	21%	79%	21%
	Spring	1,222	0%	94%	6%	94%
White	Fall	4,888	0%	29%	71%	29%
	Spring	4,683	0%	93%	7%	93%
Alphabet-Upper Case						
African American	Fall	3,919	15%	13%	72%	28%
	Spring	3,824	71%	16%	14%	87%
Hispanic	Fall	1,262	7%	8%	85%	15%
	Spring	1,220	64%	18%	19%	82%
White	Fall	4,895	12%	12%	76%	24%
	Spring	4,689	71%	16%	13%	87%
Alphabet-Lower Case						
African American	Fall	3,779	15%	13%	72%	28%
	Spring	3,807	74%	13%	13%	87%
Hispanic	Fall	1,223	6%	7%	87%	13%
	Spring	1,212	68%	16%	16%	84%
White	Fall	4,583	11%	12%	77%	23%
	Spring	4,657	74%	14%	12%	88%
Letter Sounds						
African American	Fall	3,717	11%	9%	80%	20%
	Spring	3,802	78%	9%	13%	87%
Hispanic	Fall	1,219	5%	4%	91%	9%
	Spring	1,207	75%	11%	14%	86%
White	Fall	4,540	10%	7%	84%	17%
	Spring	4,646	80%	9%	11%	89%
Beginning Sound Awareness						
African American	Fall	3,898	12%	17%	71%	29%
	Spring	3,820	66%	19%	15%	85%
Hispanic	Fall	1,257	8%	12%	79%	20%
	Spring	1,218	64%	18%	18%	82%
White	Fall	4,882	15%	19%	66%	34%
	Spring	4,672	74%	15%	11%	89%

Ethnicity	Testing Period	Children	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range *
Print and Word Awareness						
African American	Fall	3,894	1%	15%	84%	16%
	Spring	3,813	27%	53%	20%	80%
Hispanic	Fall	1,260	1%	11%	88%	12%
	Spring	1,213	23%	52%	24%	75%
White	Fall	4,876	2%	22%	77%	24%
	Spring	4,666	32%	55%	13%	87%
Rhyme Awareness						
African American	Fall	3,868	6%	19%	75%	25%
	Spring	3,809	51%	26%	22%	77%
Hispanic	Fall	1,249	4%	16%	81%	20%
	Spring	1,219	43%	30%	27%	73%
White	Fall	4,851	13%	18%	69%	31%
	Spring	4,673	64%	22%	15%	86%
Nursery Rhyme Awareness						
African American	Fall	3,855	0%	26%	74%	26%
	Spring	3,801	0%	88%	12%	88%
Hispanic	Fall	1,253	0%	14%	86%	14%
	Spring	1,216	0%	75%	25%	75%
White	Fall	4,842	0%	33%	67%	33%
	Spring	4,639	0%	90%	10%	90%

*Note: Proficient Expected Range is the sum of Exceed and Within Expected Range.

Table 24 shows the percentages of three categories of progress on PALS-PreK for children in Non-CERDEP and CERDEP classrooms. Again, in the proficient categories, increased proportions of children can be seen on the eight subtests at the end of year. For the Name Writing subtest, Non-CERDEP and CERDEP prekindergartners had proportions of 92 percent and 92 percent in the proficient range, respectively. With respect to the Alphabet-Upper Case subtest, Non-CERDEP and CERDEP children had proficient percentages of 87 percent and 86 percent, respectively. On Alphabet-Lower Case, proficient proportions for Non-CERDEP and CERDEP children were 88 percent and 87 percent, respectively. For the Letter Sounds subtest, proficient proportions for Non-CERDEP and CERDEP children were 89 percent and 87 percent, respectively. For the Beginning Sounds Awareness subtest, Non-CERDEP and CERDEP children grouped as proficient 89 percent and 86 percent, respectively. The Print and Word Awareness subtest, the proportions of Non-CERDEP and CERDEP children in the proficient range were 85 percent and 80 percent, respectively. The Rhyme Awareness subtest proficient proportions for Non-CERDEP and CERDEP children were 83 percent and 80 percent, respectively. Finally, for the Nursery Rhyme Awareness subtest, the proportions of Non-CERDEP and CERDEP children scoring in the proficient range were 89 percent and 86 percent, respectively. Across all PALS-PreK subtests, scores were similar for CERDEP and Non-CERDEP preschoolers.

Table 24
PALS-PreK Percentages by Expected Ranges and CERDEP Status
in 2017-18 School Year

CERDEP Status	Testing Period	Children	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range*
Name Writing						
Non-CERDEP	Fall	4,430	0%	24%	76%	24%
	Spring	4,176	0%	92%	8%	92%
CERDEP	Fall	6,467	0%	29%	71%	29%
	Spring	6,336	0%	92%	8%	92%
Alphabet-Upper Case						
Non-CERDEP	Fall	4,428	12%	12%	76%	24%
	Spring	4,177	73%	14%	13%	87%
CERDEP	Fall	6,491	13%	13%	74%	26%
	Spring	6,353	69%	17%	14%	86%
Alphabet-Lower Case						
Non-CERDEP	Fall	4,274	11%	11%	78%	22%
	Spring	4,169	75%	13%	12%	88%
CERDEP	Fall	6,107	14%	12%	74%	26%
	Spring	6,301	73%	14%	13%	87%
Letter Sounds						
Non-CERDEP	Fall	4,259	8%	6%	87%	14%
	Spring	4,165	81%	8%	11%	89%
CERDEP	Fall	6,008	11%	8%	81%	19%
	Spring	6,283	77%	10%	13%	87%
Beginning Sound Awareness						
Non-CERDEP	Fall	4,415	12%	17%	72%	29%
	Spring	4,165	72%	17%	12%	89%
CERDEP	Fall	6,463	14%	18%	68%	32%
	Spring	6,341	69%	17%	14%	86%
Print and Word Awareness						
Non-CERDEP	Fall	4,406	2%	18%	80%	20%
	Spring	4,148	32%	53%	14%	85%
CERDEP	Fall	6,465	1%	17%	81%	18%
	Spring	6,337	26%	54%	19%	80%
Rhyme Awareness						
Non-CERDEP	Fall	4,387	9%	17%	74%	26%
	Spring	4,161	61%	22%	17%	83%
CERDEP	Fall	6,416	9%	19%	72%	28%
	Spring	6,333	54%	26%	20%	80%
Nursery Rhyme Awareness						
Non-CERDEP	Fall	4,372	0%	28%	72%	28%
	Spring	4,139	0%	89%	11%	89%
CERDEP	Fall	6,411	0%	28%	72%	28%
	Spring	6,307	0%	86%	14%	86%

*Note: Proficient Expected Range is the sum of Exceed and Within Expected Range.

PALS-PreK Longitudinal Results

The same version of the PALS-PreK test was administered in South Carolina in successive years, allowing prekindergartners' scores to be compared across time. The purpose of the longitudinal comparisons is to examine trends in student performance. Exceed and Within Expected Range percentages are combined to create a Proficient Expected Range column for discussion.

Table 25 below provides scores for the PALS-PreK across three consecutive school years. Examining spring scores showed that the percentages of children in the Proficient Expected Range was largely stable across the period from 2016 to 2018.

Table 25
PALS-PreK Percentages by Expected Ranges
in 2015-2016, 2016-2017 and 2017-2018 School Years

Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
Name Writing					
2016 Spring	10,236	0%	92%	8%	92%
2017 Spring	10,603	0%	92%	8%	92%
2018 Spring	10,512	0%	92%	8%	92%
Alphabet-Upper Case					
2016 Spring	10,270	72%	16%	13%	88%
2017 Spring	10,608	70%	17%	13%	87%
2018 Spring	10,530	69%	17%	14%	86%
Alphabet-Lower Case					
2016 Spring	8,821	75%	14%	11%	89%
2017 Spring	10,536	73%	15%	12%	88%
2018 Spring	10,470	73%	14%	13%	87%
Letter Sounds					
2016 Spring	10,123	79%	9%	12%	88%
2017 Spring	10,504	79%	9%	12%	88%
2018 Spring	10,448	77%	10%	13%	87%
Beginning Sound Awareness					
2016 Spring	10,247	71%	16%	13%	87%
2017 Spring	10,609	70%	17%	13%	87%
2018 Spring	10,506	69%	17%	14%	86%
Print and Word Awareness					
2016 Spring	10,259	33%	51%	16%	84%
2017 Spring	10,617	30%	53%	17%	83%
2018 Spring	10,485	26%	54%	19%	80%
Rhyme Awareness					
2016 Spring	10,227	58%	24%	19%	82%
2017 Spring	10,611	57%	24%	19%	81%
2018 Spring	10,494	54%	26%	20%	80%

Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
Nursery Rhyme Awareness					
2016 Spring	10,220	0%	86%	14%	86%
2017 Spring	10,594	0%	86%	14%	86%
2018 Spring	10,446	0%	86%	14%	86%

Note: Proficient is the sum of Exceed and Meet percentages.

Table 26 reports longitudinal scores for PALS-PreK across ethnicity groups for three consecutive school years between 2016 and 2018. Proficiency scores were similar across ethnicity groups for the Name Writing subscale. For the remaining subscales, Hispanic students showed lower percentages of children in the Proficient Expected Ranges than White or African American prekindergartners.

Table 26
PALS-PreK Percentages by Expected Ranges and Ethnicity
in 2015-2016, 2016-2017 and 2017-2018 School Years

Ethnicity	Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
Name Writing						
African American	2016 Spring	3,837	0%	91%	9%	91%
	2017 Spring	4,033	0%	90%	10%	90%
	2018 Spring	3,812	0%	91%	10%	91%
Hispanic	2016 Spring	1,248	0%	94%	6%	94%
	2017 Spring	1,300	0%	93%	7%	93%
	2018 Spring	1,222	0%	94%	6%	94%
White	2016 Spring	4,580	0%	93%	7%	93%
	2017 Spring	4,539	0%	93%	7%	93%
	2018 Spring	4,683	0%	93%	7%	93%
Alphabet-Upper Case						
African American	2016 Spring	3,777	73%	15%	12%	88%
	2017 Spring	4,038	71%	16%	13%	87%
	2018 Spring	3,824	71%	16%	14%	87%
Hispanic	2016 Spring	1,250	65%	18%	17%	83%
	2017 Spring	1,298	64%	19%	17%	83%
	2018 Spring	1,220	64%	18%	19%	82%
White	2016 Spring	4,586	71%	16%	12%	87%
	2017 Spring	4,541	69%	18%	13%	87%
	2018 Spring	4,689	71%	13%	16%	84%
Alphabet-Lower Case						
African American	2016 Spring	3,732	78%	12%	10%	90%
	2017 Spring	4,008	75%	14%	11%	89%
	2018 Spring	3,807	74%	13%	13%	87%
Hispanic	2016 Spring	1,231	69%	16%	15%	85%
	2017 Spring	1,290	69%	16%	15%	85%
	2018 Spring	1,212	68%	16%	16%	84%
White	2016 Spring	4,525	75%	14%	11%	89%
	2017 Spring	4,512	73%	15%	12%	88%
	2018 Spring	4,657	74%	14%	12%	88%

Ethnicity	Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
Letter Sounds						
African American	2016 Spring	3,723	79%	11%	10%	90%
	2017 Spring	3,995	79%	8%	13%	87%
	2018 Spring	3,802	78%	9%	13%	87%
Hispanic	2016 Spring	1,232	75%	9%	16%	84%
	2017 Spring	1,287	76%	9%	15%	85%
	2018 Spring	1,207	75%	11%	14%	86%
White	2016 Spring	4,516	81%	8%	11%	89%
	2017 Spring	4,500	79%	9%	12%	88%
	2018 Spring	4,646	80%	9%	11%	89%
Beginning Sound Awareness						
African American	2016 Spring	3,763	68%	18%	14%	86%
	2017 Spring	4,043	66%	19%	15%	85%
	2018 Spring	3,820	66%	19%	15%	85%
Hispanic	2016 Spring	1,252	65%	19%	17%	84%
	2017 Spring	1,294	65%	18%	17%	83%
	2018 Spring	1,218	64%	18%	18%	82%
White	2016 Spring	4,575	75%	14%	11%	89%
	2017 Spring	4,542	74%	16%	10%	90%
	2018 Spring	4,672	74%	15%	11%	89%
Print and Word Awareness						
African American	2016 Spring	3,776	32%	51%	23%	83%
	2017 Spring	4,044	28%	52%	20%	80%
	2018 Spring	3,813	27%	53%	20%	80%
Hispanic	2016 Spring	1,251	26%	51%	23%	77%
	2017 Spring	1,300	23%	54%	23%	77%
	2018 Spring	1,213	23%	52%	24%	75%
White	2016 Spring	4,575	36%	52%	12%	88%
	2017 Spring	4,543	32%	55%	13%	87%
	2018 Spring	4,666	32%	55%	13%	87%
Rhyme Awareness						
African American	2016 Spring	3,755	55%	26%	20%	81%
	2017 Spring	4,039	53%	25%	22%	78%
	2018 Spring	3,809	51%	26%	22%	77%
Hispanic	2016 Spring	1,251	40%	31%	28%	71%
	2017 Spring	1,298	40%	35%	25%	75%
	2018 Spring	1,219	43%	30%	27%	73%
White	2016 Spring	4,566	65%	20%	15%	85%
	2017 Spring	4,545	66%	19%	15%	85%
	2018 Spring	4,673	64%	22%	15%	86%
Nursery Rhyme Awareness						
African American	2016 Spring	3,753	0%	87%	13%	87%
	2017 Spring	4,035	0%	86%	14%	86%
	2018 Spring	3,801	0%	88%	12%	88%
Hispanic	2016 Spring	1,248	0%	71%	29%	71%
	2017 Spring	1,296	0%	72%	28%	72%
	2018 Spring	1,216	0%	75%	25%	75%

Ethnicity	Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
White	2016 Spring	4,641	0%	88%	12%	88%
	2017 Spring	4,534	0%	89%	11%	89%
	2018 Spring	4,639	0%	90%	10%	90%

Note: Proficient is the sum of Exceed and Meet percentages.

Table 27 reports longitudinal scores for PALS-PreK across time based on CERDEP status. For a given subscale, PALS-PreK spring scores were relatively stable across time, regardless of CERDEP attendance.

Table 27
PALS-PreK Percentages by Expected Ranges and CERDEP Status
in 2015-2016, 2016-2017 and 2017-2018 School Years

CERDEP Status	Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
Name Writing						
Non-CERDEP	2016 Spring	4,230	0%	93%	7%	93%
	2017 Spring	4,222	0%	92%	8%	92%
	2018 Spring	4,176	0%	92%	8%	92%
CERDEP	2016 Spring	6,006	0%	92%	8%	92%
	2017 Spring	6,381	0%	91%	9%	91%
	2018 Spring	6,336	0%	92%	8%	92%
Alphabet-Upper Case						
Non-CERDEP	2016 Spring	4,236	73%	15%	18%	88%
	2017 Spring	4,221	72%	15%	13%	87%
	2018 Spring	4,177	73%	14%	13%	87%
CERDEP	2016 Spring	6,034	70%	16%	13%	87%
	2017 Spring	6,387	69%	18%	14%	87%
	2018 Spring	6,353	69%	17%	14%	86%
Alphabet-Lower Case						
Non-CERDEP	2016 Spring	4,185	77%	12%	11%	89%
	2017 Spring	4,192	75%	13%	12%	88%
	2018 Spring	4,169	75%	13%	12%	88%
CERDEP	2016 Spring	5,964	74%	14%	12%	88%
	2017 Spring	6,344	73%	15%	12%	88%
	2018 Spring	6,301	73%	14%	13%	87%
Letter Sounds						
Non-CERDEP	2016 Spring	4,169	81%	8%	11%	89%
	2017 Spring	4,176	81%	8%	11%	89%
	2018 Spring	4,165	81%	8%	11%	89%
CERDEP	2016 Spring	5,954	78%	10%	12%	88%
	2017 Spring	6,328	78%	9%	13%	87%
	2018 Spring	6,283	77%	10%	13%	87%
Beginning Sound Awareness						
Non-CERDEP	2016 Spring	4,229	72%	16%	12%	88%
	2017 Spring	4,206	72%	16%	12%	88%
	2018 Spring	4,165	72%	17%	12%	89%

CERDEP Status	Testing Period	Students	Exceed Expected Range	Within Expected Range	Below Expected Range	Proficient Expected Range
CERDEP	2016 Spring	6,018	70%	16%	13%	86%
	2017 Spring	6,403	69%	17%	14%	86%
	2018 Spring	6,341	69%	17%	14%	86%
Print and Word Awareness						
Non-CERDEP	2016 Spring	4,227	38%	49%	14%	87%
	2017 Spring	4,212	33%	52%	15%	85%
	2018 Spring	4,148	32%	53%	14%	85%
CERDEP	2016 Spring	6,032	30%	53%	17%	83%
	2017 Spring	6,405	28%	54%	18%	82%
	2018 Spring	6,337	26%	54%	19%	80%
Rhyme Awareness						
Non-CERDEP	2016 Spring	4,223	60%	23%	18%	83%
	2017 Spring	4,209	61%	22%	17%	83%
	2018 Spring	4,161	61%	22%	17%	83%
CERDEP	2016 Spring	6,004	56%	25%	19%	81%
	2017 Spring	6,402	55%	25%	20%	80%
	2018 Spring	6,333	54%	26%	20%	80%
Nursery Rhyme Awareness						
Non-CERDEP	2016 Spring	4,219	0%	84%	16%	84%
	2017 Spring	4,208	0%	86%	14%	86%
	2018 Spring	4,139	0%	89%	11%	89%
CERDEP	2016 Spring	6,001	0%	87%	13%	87%
	2017 Spring	6,386	0%	86%	14%	86%
	2018 Spring	6,307	0%	86%	14%	86%

Note: Proficient is the sum of Exceed and Meet percentages.

PALS-PreK Findings

Finding 17: As noted in Table 22, teachers administered PALS-PreK to nearly 11,000 prekindergartners in fall 2017 and about 10,500 prekindergartners in spring 2018.

Finding 18: When using the combined Exceed Expected Range and Within Expected Range categories, the overwhelming proportion of prekindergartners generally met publishers' spring expected scores on subtests: 1. Name Writing (92 percent), 2. Alphabet-Upper Case (86 percent), 3. Alphabet-Lower Case (88 percent), 4. Letter Sounds (88 percent), 5. Beginning Sound Awareness (87 percent), 6. Print and Word Awareness (83 percent), 7. Rhyme Awareness (81 percent), and 8. Nursery Rhyme Awareness (87 percent).

Finding 19: For the PALS-PreK by ethnicity African American and White preschoolers had similar proportions of proficiency, excepting Rhyme Awareness, with Whites scoring 9 percent higher.

Finding 20: On the spring 2018 assessments, Hispanic children had lower proficient proportions than African American and White prekindergartners all but one subtest: Name Writing. The proportion of Hispanic children was most discrepant from other groups on the Nursery Rhyme Awareness subtest (13 percent lower than African Americans and 15 percent lower than Whites).

Finding 21: Prekindergartners in CERDEP and Non-CERDEP school districts had very similar proportions in spring 2018, with proficiency rates \geq 80 percent on all subscales.

Finding 22: Longitudinal PALS-PreK scores were stable across the 2016 to 2018 spring testing for all prekindergarten students.

Finding 23: Scores of PALS-PreK subtests by ethnicity and CERDEP status were stable, with students in the proficient range varying little across time.

Teaching Strategies GOLD Birth Through 3rd Grade (B3-GOLD)

The B3-GOLD is a new version of the previously used assessment, Teaching Strategies GOLD. The B3-GOLD is an individualized, standardized assessment designed to measure children’s developmental skills from birth through third grade. The revised version of the assessment provides information about children’s skills throughout the entire early childhood period. The B3-GOLD went through extensive review, editing, pilot testing, field testing, and revisions based on preliminary results and feedback from experts to arrive at the revised version. Unlike the IGDIs-EL and PALS-PreK, teachers make judgments about children’s individual skill levels by reviewing children’s artifacts placing children in a “developmental band” that corresponds to what a child can do concurrent with their age. The B3-GOLD is meant to be used as a formative assessment measure to shape and guide children’s development.

Even though the test has a similar name and measures similar domains as in the past, B3-GOLD scores are not comparable with those of the previous TS GOLD. The B3-GOLD measures children along six domains and includes different scores (norm referenced, criterion referenced, readiness). As recommended by the test publishers, the present evaluation reports Widely Held Expectations scores, termed B3-GOLD Benchmark in the tables. The B3-GOLD Benchmarks are criterion referenced cut points founded in child development theory and research that indicate where demonstration of behavioral skills is expected for each age. These cut points were set by panels in a standard setting process. Subscale scores are converted to categories to denote performance: below, meets, or exceeds. The B3-GOLD Benchmark scores also align well with the purpose of the test—that is, to provide formative feedback regarding children’s development.

In South Carolina, the domains of Language and Literacy were assessed and reported for prekindergarten children. All children are tested at the beginning and the end of the academic school year. This report provides information about children’s performance at the beginning and the end of the 2017-18 school year.

Table 28 provides descriptions of the objectives that comprise these two domains. It should be noted that the Language Objectives and Literacy Objectives are not comparable domains. Specifically, Language Objectives may be more difficult for teachers to judge given they are based on language skills related to general language development (e.g., understanding complex language, expressing thoughts and needs). Literacy Objectives may be more readily judged because they are based on specific skills that are often taught during preschool (e.g., alphabet, use of books).

Table 28
B3-GOLD Language and Literacy Domains and Objectives

Language (3 Objectives)	Listens to and understands increasingly complex language Uses language to express thoughts and needs Uses appropriate conversational and other communication skills
Literacy (5 Objectives)	Demonstrates phonological awareness Demonstrates knowledge of alphabet Demonstrates knowledge of print and its uses Comprehends and responds to books and other texts Demonstrates writing skills

Table 29 shows the percentage of children in the B3-GOLD categories stated by the publisher. As with previous assessments, the Exceed and Meet categories were combined to form a Proficient category for discussion. Specifically, during the spring (i.e. end-of-year) assessment, the proficient categories held substantial majorities of children: Language Domain 87 percent, and Literacy Domain 94 percent. The bolded proportions show the largest percentages in fall and spring assessments across the three categories recommended by the test developer.

Table 29
B3-GOLD Percentages in Expected Ranges in 2017-18 School Year

Testing Period	Children	Exceed	Meet	Below	Proficient*
Language					
Fall	6,871	1%	31%	69%	32%
Spring	6,684	18%	69%	13%	87%
Literacy					
Fall	6,876	0%	36%	64%	36%
Spring	6,682	25%	69%	6%	94%

Note: Proficient is the sum of Exceed and Meet percentages.

Table 30 delineates the three categories of progress on B3-GOLD for African American, Hispanic, and White children. Again, in the proficient categories, improvements in the children's progress from the fall to spring assessment are evident. For the Language domain, by spring, most African American (85 percent), Hispanic (83 percent), and White (89 percent) children were within the proficient categories. In the Literacy domain, by spring, the majority of African American (92 percent), Hispanic (95 percent), and White (95 percent) prekindergartners were in the proficient categories.

Table 30
B3-GOLD Percentages in Expected Ranges by Ethnicity in 2017-18 School Year

Ethnicity	Testing Period	Children	Exceed	Meet	Below	Proficient
Language						
African American	Fall	3,352	1%	33%	66%	34%
	Spring	3,269	18%	68%	15%	86%
Hispanic	Fall	791	0%	19%	81%	19%
	Spring	785	15%	69%	17%	84%
White	Fall	2,155	0%	32%	68%	32%
	Spring	2,058	18%	71%	11%	89%
Literacy						
African American	Fall	3,351	1%	39%	61%	40%
	Spring	3,267	25%	67%	8%	92%
Hispanic	Fall	791	0%	23%	77%	23%
	Spring	785	18%	77%	5%	95%
White	Fall	2,160	0%	35%	65%	35%
	Spring	2,058	27%	69%	5%	96%

Note: Proficient is the sum of Exceed and Meet percentages.

Table 31 delineates results from Non-CERDEP and CERDEP sites. Again, in the proficient categories (“Exceeds” and “Meets” combined), children’s progress on B3-GOLD from the fall to spring assessment may be seen in both the Language and Literacy domains. For the Language Domain, Non-CERDEP and CERDEP prekindergartners had spring proficient proportions of 90 percent and 85 percent, respectively. With respect to the Literacy Domain, Non-CERDEP and CERDEP children had spring proficient percentages of 96 percent and 93 percent, respectively.

Table 31
B3-GOLD Percentages in Expected Ranges by Non-CERDEP and CERDEP Status
in 2017-18 School Year

CERDEP Status	Testing Period	Children	Exceed	Meet	Below	Proficient
Language						
Non-CERDEP	Fall	1,948	0%	23%	76%	23%
	Spring	1,876	16%	74%	10%	90%
CERDEP	Fall	4,923	1%	34%	66%	35%
	Spring	4,808	18%	67%	15%	85%
Literacy						
Non-CERDEP	Fall	1,956	0%	31%	69%	31%
	Spring	1,876	25%	71%	4%	96%
CERDEP	Fall	4,920	0%	38%	62%	38%
	Spring	4,806	24%	69%	7%	93%

Note: Proficient is the sum of Exceed and Meet percentages.

Given that First Steps used B3-GOLD and some public school classrooms also used B3-GOLD, Table 32 delineates Non-public CERDEP and Public CERDEP scores. Again, in the proficient categories, improvements in the children’s progress from the fall to spring assessment are evident for the Language and Literacy Domains. For the Language Domain, Non-public CERDEP and Public CERDEP prekindergartners had proficient proportions of 85 percent and 85 percent, respectively. With respect to the Literacy Domain, Non-public CERDEP and Public CERDEP children had percentages of 90 percent and 94 percent, respectively.

Table 32
B3-GOLD Percentages in Expected Ranges by Public and Non-public CERDEP
Participants in 2017-18 School Year

CERDEP Status	Testing Period	Children	Exceed	Meet	Below	Proficient
Language						
Non-public CERDEP	Fall	2,202	1%	43%	56%	44%
	Spring	2,111	16%	69%	15%	85%
Public CERDEP	Fall	2,721	0%	27%	73%	27%
	Spring	2,697	20%	65%	14%	85%
Literacy						
Non-public CERDEP	Fall	2,198	1%	51%	49%	52%
	Spring	2,109	14%	76%	9%	90%
Public CERDEP	Fall	2,722	0%	28%	72%	28%
	Spring	2,697	32%	62%	6%	94%

Note: Proficient is the sum of Exceed and Meet percentages.

B3-GOLD Findings

Finding 24: Teachers administered B3-GOLD to approximately 6,900 4K students in fall 2017 and 6,700 4K students in spring 2018. Both non-public programs (First Steps) and some public school 4K students were assessed with B3-GOLD. The sum of “meet” and “exceed” categories equals the “proficient” category.

Finding 25: Most students scored proficient in the spring, 87 percent on Language and 94 percent on Literacy subtests.

Finding 26: On the spring 2018 assessment, all ethnic groupings scored comparably on the Language and Literacy subtests.

Finding 27: Students in Non-CERDEP and CERDEP programs also scored comparably on the Language and Literacy subtests.

Finding 28: CERDEP students in non-public (First Steps) and public classrooms scored comparably on the Language and Literacy subtests.

Finding 29: Because B3-GOLD is a new instrument, it is inappropriate to conduct longitudinal comparison with prior years’ TS GOLD results.

Summary of 4K Assessment Findings

Finding 30: Overall, most 4K students met assessment benchmarks in the spring of 2018. Table 33 below summarizes the following findings:

- IGDIs-EL:
 - 74 percent of students showed proficient progress on Rhyming, and 94 percent showed proficient progress on Alliteration.
 - The greatest ethnicity gaps were in Rhyming. Hispanic children scored lower than African American children by 11 percent and lower than White children by 19 percent. African American children scored 8 percent lower than White children in Rhyming.
 - CERDEP and Non-CERDEP students scored similarly in all areas.
 - From spring 2016 to spring 2018 there were slight increases in proficiency for four of the five IGDIs-EL subtests: Picture Naming, Rhyming, Picture Identification, and “Which One Doesn’t Belong?” By ethnicity, Hispanic students made the greatest gains, increasing by 9 percent on Picture Naming and by 7 percent on Rhyming over the three-year period. CERDEP and Non-CERDEP scores were similar between the two groups, showing slight increases.
- PALS-PreK:
 - High levels of students achieving proficiency, scoring 81 percent or higher on all tasks.
 - African American and White children scored similarly on most PALS-PreK; the one exception was Rhyme Awareness (9 percent lower). There were three PALS-PreK scales on which Hispanic students reported lower proficiency rates than other ethnicity groupings: Nursery Rhyme Awareness (12 percent lower than African Americans, 15 percent than Whites). Hispanic children scored lower than White children on two subtests: Print and Word Awareness (12 percent lower) and Rhyme Awareness (13 percent lower); scores were similar to African American children on these subscales.
 - CERDEP and Non-CERDEP students scored similarly.
 - Longitudinal PALS-PreK scores were stable across the 2016 to 2018 spring testing for all prekindergarten students. Scores of PALS-PreK subtests by ethnicity and CERDEP status were stable, with students in the proficient range varying little across time.

- B3- GOLD:
 - Overall, students scored proficient 87 percent on Language and 94 percent on Literacy.
 - All ethnic groups scored similarly on B3-GOLD subscales.
 - CERDEP and Non-CERDEP students received similar scores.

Table 33

Summary of Findings from Fall to Spring Administration of Prekindergarten Assessments, 2017-2018 Academic Year

Assessment	80% or more of Children Showed:	Less than 80% of Children Showed:	Greatest Gaps by Ethnicity in:	Gaps between CERDEP and Non-CERDEP:
Individual Growth and Development Indicators of Early Literacy (IGDIs-EL)	Proficiency in: <ul style="list-style-type: none"> Picture Naming (90%) "Which One Doesn't Belong" (89%) Alliteration (94%) Sound Identification (80%) 	Proficiency in: <ul style="list-style-type: none"> Rhyming (74%) 	Rhyming: <ul style="list-style-type: none"> Hispanic children lower than African American by 11% and White Children by 19% Rhyming: <ul style="list-style-type: none"> African American children lower by 8% than White children 	Similar Progress
Phonological Awareness Literacy Screening Prekindergarten (PALS-PreK)	Proficiency in: <ul style="list-style-type: none"> Name Writing (92%) Alphabet-Upper Case (86%) Alphabet-Lower Case (88%) Letter Sounds (88%) Beginning Sound Awareness (87%) Print and Word Awareness (83%) Rhyme Awareness (81%) Nursery Rhyme Awareness (87%) 		None detected between African American and White Children Print and Word Awareness: <ul style="list-style-type: none"> Hispanic children were 12% lower than White children. Rhyme Awareness: <ul style="list-style-type: none"> Hispanic children were 13% lower than White Children Nursery Rhyme Awareness <ul style="list-style-type: none"> Hispanic children were 13% lower than African Americans and 15% lower than White Children 	Similar progress
Teaching Strategies GOLD Birth Through 3 rd Grade (B3-GOLD)	Proficiency in: <ul style="list-style-type: none"> Language (87%) Literacy (94%) 		None dedicated between ethnic groupings	Similar Progress

III. Preliminary CERDEP Program Results in 2018-19 (EOC)

Provisos 1.58 and 1A.30 of the 2018-19 General Appropriation Act govern the administration of the state-funded, full-day four-year-old kindergarten program (CERDEP) in school year 2018-19. The program’s eligibility remains consistent; an at-risk four-year-old residing in a district with a poverty index of 70 percent or greater could attend a public school or non-public center participating in the program. The per pupil reimbursement rate for instructional costs increased to \$4,510 in 2018-19, an increase of \$88 per pupil from 2017-18. The South Carolina Department of Education (SCDE) continues to manage CERDEP in public schools while the South Carolina Office of First Steps to School Readiness (First Steps) administers the program in non-public classrooms, including non-public childcare centers and faith-based settings.

CERDEP Participation in Public Schools

In 2018-19, there are still 64 school districts eligible to participate in CERDEP; however, three districts (Horry County School District, Kershaw County School District and Union County School District) opted not to participate. Table 34 lists districts eligible to participate in CERDEP.

Table 34
Districts with Poverty Index of 70 percent or Greater

1	Abbeville	17	Clarendon 1	33	Greenwood 50	49	McCormick
2	Aiken	18	Clarendon 2	34	Greenwood 51	50	Newberry
3	Allendale	19	Clarendon 3	35	Greenwood 52	51	Oconee
4	Anderson 2	20	Colleton	36	Hampton 1	52	Orangeburg 3
5	Anderson 3	21	Darlington	37	Hampton 2	53	Orangeburg 4
6	Anderson 5	22	Dillon 3	38	Horry ²²	54	Orangeburg 5
7	Bamberg 1	23	Dillon 4	39	Jasper	55	Richland 1
8	Bamberg 2	24	Dorchester 4	40	Kershaw ²³	56	Saluda
9	Barnwell 19	25	Edgefield	41	Laurens 55	57	Spartanburg 3
10	Barnwell 29	26	Fairfield	42	Laurens 56	58	Spartanburg 4
11	Barnwell 45	27	Florence 1	43	Lee	59	Spartanburg 6
12	Berkeley	28	Florence 2	44	Lexington 2	60	Spartanburg 7
13	Calhoun	29	Florence 3	45	Lexington 3	61	Sumter
14	Cherokee	30	Florence 4	46	Lexington 4	62	Union ²⁴
15	Chester	31	Florence 5	47	Marion	63	Williamsburg
16	Chesterfield	32	Georgetown	48	Marlboro	64	York 1

²² While eligible, Horry has opted out of CERDEP participation.

²³ While eligible, Kershaw has opted out of CERDEP participation. However, Kershaw will participate in CERDEP beginning in mid-January 2019.

²⁴ While eligible, Union has opted out of CERDEP participation.

Table 35 shows a 2018-19 enrollment of 9,705 students based on the 45-Day Student Count. Berkeley was 9.2 percent of statewide CERDEP enrollment with 895 students. Sumter enrolled 518 students, representing 5.3 percent of statewide enrollment. Florence 1 enrolled 390; Richland 1 enrolled 442; and Anderson 5 enrolled 395 students, comprising 12.6 percent of statewide enrollment combined.

Table 35
Public CERDEP Enrollment by District, based on 2018-19 45-Day Student Count

District	Count	Percent	District	Count	Percent
1 Abbeville	98	1.01	32 Georgetown	205	2.11
2 Aiken	470	4.84	33 Greenwood 50	220	2.27
3 Allendale	63	0.65	34 Greenwood 51	31	0.32
4 Anderson 2	95	0.98	35 Greenwood 52	40	0.41
5 Anderson 3	113	1.16	36 Hampton 1	95	0.98
6 Anderson 5	395	4.07	37 Hampton 2	27	0.28
7 Bamberg 1	24	0.25	38 Horry ²⁵	17	0.18
8 Bamberg 2	31	0.32	39 Jasper	153	1.58
9 Barnwell 19	16	0.17	40 Laurens 55	104	1.07
10 Barnwell 29	20	0.21	41 Laurens 56	65	0.67
11 Barnwell 45	39	0.40	42 Lee	76	0.78
12 Berkeley	895	9.22	43 Lexington 2	266	2.74
13 Calhoun	96	0.99	44 Lexington 3	138	1.42
14 Cherokee	245	2.52	45 Lexington 4	211	2.17
15 Chester	181	1.87	46 McCormick	20	0.21
16 Chesterfield	138	1.42	47 Marion 10	131	1.35
17 Clarendon 1	39	0.40	48 Marlboro	155	1.60
18 Clarendon 2	92	0.95	49 Newberry	149	1.54
19 Clarendon 3	38	0.39	50 Oconee	355	3.66
20 Colleton	234	2.41	51 Orangeburg 3	120	1.24
21 Darlington	304	3.13	52 Orangeburg 4	98	1.01
22 Dillon 3	59	0.61	53 Orangeburg 5	191	1.97
23 Dillon 4	122	1.26	54 Richland 1	442	4.55
24 Dorchester 4	99	1.02	55 Saluda	78	0.80
25 Edgefield	117	1.21	56 Spartanburg 3	104	1.07
26 Fairfield	148	1.53	57 Spartanburg 4	108	1.11
27 Florence 1	390	4.02	58 Spartanburg 6	323	3.33
28 Florence 2	36	0.37	59 Spartanburg 7	192	1.98
29 Florence 3	121	1.25	60 Sumter	518	5.34
30 Florence 4	21	0.22	61 Williamsburg	129	1.33
31 Florence 5	30	0.31	62 York 1 (York)	175	1.80
TOTAL				9,705	

Source: SCDE response to EOC data request, December 19, 2018.

²⁵ Students in Horry are enrolled in a charter school.

Table 36 details SCDE CERDEP appropriations and projected expenditures for FY 2018-19. As submitted by SCDE, instructional costs are projected to be \$45.4 million, which would fund 10,060 students who remain continuously enrolled in public CERDEP classrooms during the 2018-19 school year. Based on the 45-Day Student Count, actual CERDEP enrollment is about five percent below the budgeted number of students to be served. The 45-Day Count of 9,705 may decrease further due to student attrition. Based on historical data, the attrition rate in public schools is approximately 8.4 percent during the school year, meaning 8.4 percent of students exit the program before the end of the school year. Student attrition is likely to result in actual carry forward to FY 2019-20 exceeding the projected \$7.2 million. The carry forward from FY 2017-18 to FY 2018-19 was over \$10.3 million. SCDE projects expending \$1.1 million on CERDEP expansion during FY 2018-19, which is the same level as in the prior school year. During the current school year, SCDE reports it plans to provide more professional development for math. However, an explanation or detail about the plan to enhance math professional development was not provided at the time of this report.

Regarding the carry forward, SCDE noted support for an increase in the per pupil reimbursement rate and implementation of the following actions:

- Approximately \$2.4 million for professional development in math:

*During 2018-2019, the Office of Early Learning and Literacy (OELL) provided regional cohorts in early learning math instruction. The two-part face to face training will focus participants on being intentional in nurturing and engaging each student in his/her development of mathematical thinking, reasoning, and problem solving within the foundation of number sense, algebraic thinking, data analysis, geometry, and measurement. Session one occurred during fall 2018 with a total of 84 participants in regional meetings. Session one focused on effectively implementation of the South Carolina Early Learning Standards Mathematical Thinking and Expression (SC-ELS MTE) and how development of mathematical thinking occurs through counting, subitizing, classification, and problem solving. Session two being provided during spring 2019 as the second part of the cohort. Session two will focus on building an awareness of how development occurs through sorting, classifying, and later patterning. Each session provides methods of scaffolding students' development of mathematical concepts through hands-on, purposeful play scenarios throughout the preschool day to build a strong mathematical foundation. Participants will [leave] with a goal and next steps in how to intentionally promote, encourage, support, and expose children to math in different everyday playful learning situations and activities for each child in their care.*²⁶

- Some CERDEP-eligible districts are expanding in mid-January, 2019.

²⁶ SCDE emailed a response to EOC's request for additional information, January 9, 2019.

- Kershaw will begin participating in CERDEP in mid-January, 2019. Kershaw is eligible to participate in CERDEP, but in prior years has opted not to participate in CERDEP.
- SCDE will enhance its professional development offerings.

Actual carry forward cost estimates for the above actions were not provided by SCDE at the time of this report.

Table 36
SCDE Summary of Actual Appropriations and Projected Expenditures for FY 2018-19

Appropriations	
Carry Forward from FY 17 to FY 18	\$10,357,141
FY 19 General Fund Appropriation	\$13,099,665
FY 19 EIA Appropriation	\$ 34,324,437
Total Revenues	\$ 57,781,243
Projected Expenditures	
Portion of EOC Evaluation (EIA)	\$ 195,000
Cost of Instruction (\$4,510 per child pro-rata)	\$45,368,095
Supplies for New Classrooms (\$10,000 per classroom)	\$ 130,000
Expenditures for Transportation	\$ 700,000
Professional Development - Math	\$ 2,418,359
Assessment	\$ 600,000
Other: Expansion	
Extended Year (includes net from FY 17-18 Extended Year)	\$ 113,741
Summer Program (includes net from FY 18 Summer)	<u>\$ 906,770</u>
Extended Day	\$ 86,625
Total Expansion to Expend in 2018-19	\$1,107,136
Total Projected Expenditures	\$50,518,590
Amount Remaining to Carry Forward to FY 19	\$7,262,653
Outputs	
Total Full-Time Equivalents*	10,060

*Note: A full-time equivalent served is determined by dividing the total number of funds expended for instructional services by \$4,510, the per child maximum reimbursable rate.

Source: SC Department of Education Response to EOC Data Request, November 2018

Based on 2017-18 full-time equivalents, or actual number of students funded, CERDEP enrollment in public schools was 9,789 during the 2017-18 school year, with an 8.4 percent attrition rate. With a 45-Day Student Count of 9,705, 2018-19 the number of full-time equivalent students funded in public CERDEP is likely to decrease from 9,787 students in 2017-18 to 8,890 students in 2018-19. The projected decrease in public CERDEP enrollment results in a \$5.2 million decrease in SCDE's projected budget expenditures.²⁷ Table 37 shows SCDE reports five new schools and 12 new classrooms were added to the public CERDEP program during 2018-19. It is unclear why the addition of new schools and classrooms is not increasing the actual number of students enrolled in the public CERDEP program.

**Table 37
Estimated CERDEP Public School Growth in FY 2018-19**

	FY 2018-19 (Estimated)
Number of New Schools	5
Number of Existing Schools	242
Total Number of Schools	247
Number of New Classrooms	12
Number of Existing Classrooms	589
Total Number of Classrooms	601
Students Enrolled at 45-Day Count	9,705

Source: SC Department of Education email response, December 3, 2018

²⁷ \$4,510 per pupil multiplied by projected 8,890 student enrollment equals \$40,093,900. This projected expenditure is \$5,274,195 less than SCDE's budgeted expenditures (cost of instruction) of \$45,368,095.

CERDEP Participation in Non-public Settings

The Office of First Steps provided 2018-19 student enrollment data based on enrolled students with Student Unique Identifier Numbers. Table 38 is based on a rolling enrollment, showing 2,915 students were enrolled in a non-public CERDEP classroom at some point between August 20 and December 1, 2018.²⁸ Non-public CERDEP student enrollment in Table 38 is based on the non-public providers' geographic location by county. There were 1,945 students (defined as full-time equivalents) enrolled in non-public CERDEP during the 2017-18 school year. Students enrolled in a non-public setting are identified by the child's county of residence and not school district. However, student eligibility is based on the child's school district of residency. Horry and Richland counties account for almost 28 percent of total non-public CERDEP enrollment. During the 2017-18 school year, the student attrition rate was 11.3 percent for non-public CERDEP students. Based upon prior year's full-time equivalents and the budgeted full-time equivalents for 2018-19, it appears First Steps has incorporated anticipated student attrition into their budget projections.

²⁸ Unlike SCDE's 45-Day Count, which reflects the actual enrollment on the 45th day of school, First Steps provided rolling enrollment data and does not report actual non-public CERDEP enrollment on December 1, 2018.

Table 38
Non-public CERDEP Rolling Student Enrollment by County during 2018-19 School Year²⁹

County	Number of Students	Percent of Students	County	Number of Students	Percent of Students
Abbeville	1	0.03	Greenwood	31	1.06
Aiken	213	7.31	Hampton	16	0.55
Allendale	2	0.07	Horry	416	14.27
Anderson	46	1.58	Jasper	20	0.69
Bamberg	39	1.34	Kershaw	58	1.99
Barnwell	33	1.13	Laurens	107	3.67
Berkeley	93	3.19	Lee	33	1.13
Calhoun	1	0.03	Lexington	90	3.09
Charleston	1	0.03	Marion	111	3.81
Cherokee	29	0.99	Marlboro	21	0.72
Chester	15	0.51	Newberry	27	0.93
Chesterfield	8	0.27	Oconee	27	0.93
Clarendon	3	0.10	Orangeburg	124	4.25
Colleton	16	0.55	Richland	395	13.55
Darlington	48	1.65	Saluda	13	0.45
Dillon	50	1.72	Spartanburg	167	5.73
Dorchester	5	0.17	Sumter	194	6.66
Edgefield	12	0.41	Union	58	1.99
Fairfield	9	0.31	Williamsburg	43	1.48
Florence	261	8.95	York	31	1.06
Georgetown	48	1.65			
TOTAL				2,915	

Source: SC First Steps Response to EOC Data Request, Received November 2018.

²⁹ Student enrollment in CERDEP in a non-public setting at some point between August 20 and December 1, 2018.

Table 39 shows an estimated \$7.6 million in First Steps carry forward (or cash balance) to FY 2019-20. The estimated cost of instruction of \$9.1 million is based on a projected enrollment of 2,018 students in non-public settings. December 2018 CERDEP enrollment in non-public settings is 2,915 students (see Table 38). For 2018-19, increases in salaries and fringe benefits are due to two additional regional coordinators being hired to provide technical assistance and support to CERDEP providers. Each regional coordinator support about 20 providers, with a lead coordinator supporting five to seven centers and leading professional development for regional coordinator staff and assisting with planning and implementation of statewide 4K professional development opportunities. There are three additional temporary staff positions that are being changed to permanent positions. Two additional staff are now dedicated to First Steps' CERDEP program, including a data manager and a fiscal manager.³⁰ During the summer of 2018, First Steps also conducted a CERDEP outreach campaign, mailing a CERDEP information postcard to approximately 48,000 households. In July 2018, First Steps mailed 15,000 household associated with Temporary Aid for Needy Families or Supplemental Nutrition Assistance Program. In late September 2018, First Steps mailed 33,000 households or Medicaid-eligible children.³¹

³⁰ EOC staff meeting with SC First Steps Staff, October 4 and November 5, 2018.

**Table 39
Office of First Steps Estimated Budget Fiscal Year 2018-19**

TOTAL Available Funds	
Carry forward from FY18 to FY19	\$9,736,885
State Funds Expended and On-Hold locally	\$0
Interested Earned on Cash	Not reported
EIA Funds	\$9,767,864
General Fund	\$6,521,510
Teacher Supply Funds	\$60,500
TOTAL Available Funds	\$26,086,759
TOTAL Actual Transfers/Expenditures	
Transfers:	
Portion of EOC Evaluation	\$105,000
Allocation to EOC per Proviso 1.72. and 1A.65. for Community Block Grants for Education Pilot Program	\$1,000,000
First Steps Provisos:	
Quality Proviso for First Steps per Proviso 1.72	\$1,000,000
Technology Proviso for First Steps per Proviso 1.68	\$75,000
<i>Subtotal for Transfers and Provisos</i>	\$2,180,000
TOTAL Available Funds	\$23,906,759
Agency Expenditures:	
Salaries	\$1,471,121
Fringe Benefits	\$537,689
Contractual Services	\$500,000
Supplies and Materials	\$300,000
Rental/Leased Space	\$150,000
Travel	\$200,000
Capital Equipment	\$10,000
<i>Subtotal for Agency Expenditures:</i>	\$3,168,810
TOTAL Actual Transfers/Expenditures	
Payments to Centers:	
Instruction (\$4,510 per child pro-rata)	\$9,100,982
Expansion	\$2,514,582
Supplies and Materials for Classrooms	\$900,000
Stipends	\$298,000
Substitute Teacher Reimbursement	\$2,000
Teacher Supplies	\$60,500
Transportation	<u>\$200,000</u>
<i>Subtotal for Center-Level Expenditures:</i>	\$13,076,064
TOTAL Expenditures	\$16,244,874
Outputs	
Full-Time Equivalents	2,018
Funds Carried Forward to FY19	\$7,661,885

Provided by SC Office of First Steps, October 2018.

Note: Administration includes salaries, contractual services, travel, equipment and rental/leased space.

*Note: Full-time equivalent served is determined by dividing the total number of funds expended for instructional services by \$4,510, the per child maximum reimbursable rate.

³¹ EOC staff meeting with SC First Steps Staff, October 4, 2018.

Summary

Table 40 summarizes SCDE's and First Steps' 2018-19 budget and the EOC projection for actual CERDEP expenditures, carry forward and students enrolled for the 2018-19 school year. SCDE reports 9,705 children were enrolled in CERDEP at the 45-Day Student Count. As of December 2018, First Steps reports 2,915 children were enrolled CERDEP at some point during the August 20 through December 1, 2018 time period. During the 2017-18 school year, the student attrition rate was 8.4 percent for public CERDEP students and 11.3 percent for non-public CERDEP students. Based upon prior year's full-time equivalents and the budgeted full-time equivalents for 2018-19, it appears First Steps has incorporated anticipated student attrition into their budget. Using 2017-18 attrition rate of 8.4 percent in public schools, it is projected 10,908 students will be enrolled at the end of the 2018-19 school year: 8,890 public CERDEP and 2,018 non-public CERDEP students. The projected decrease in public CERDEP enrollment yields a decrease of approximately \$5.2 million in estimated expenditures³². Projected expenditures for SCDE are \$45.2 million as shown in Table 40. A projected enrollment of 8,890 public CERDEP students in the 2018-19 school year is a decrease from the public CERDEP enrollment of 9,789 students in the 2017-18 school year. First Steps budgeted for an increase of 73 students (defined as full-time equivalents) during the 2018-19 school year.

Table 40
EOC Analysis of Preliminary CERDEP Program and Financial Data for FY 2018-19

	SCDE	First Steps	TOTAL
SCDE and First Steps Budget			
Total Available Funds	\$57,781,243	\$26,086,759	\$83,868,002
Budgeted Transfers and Expenditures for 2018-19	\$50,518,590	\$18,424,874	\$68,943,464
Budgeted Carry Forward to 2019-20	\$7,262,653	\$7,661,885	\$14,924,538
Total Students Budgeted	10,060	2,018	12,078
EOC Projection			
Projected Transfers and Expenditures Based on 45-Day Count and 8.4% Attrition Rate in Public Schools	\$45,244,395	\$18,424,874	\$63,669,269
Total Projected Carry Forward	\$12,536,848	\$7,661,885	\$20,198,733 ³³
Projected Students Based on 45-Day Count and 8.4% Attrition Rate in Public Schools	8,890	2,018	10,908

³² The difference between \$7,262,653 in SCDE budgeted carry forward and \$12,536,848 in projected carry forward is \$5,274,195.

³³ Both SCDE and First Steps verified project carry forward amounts January 9, 2019.

In 2018-19, there was an overall increase of 3 schools and 22 non-public providers participating in CERDEP. This increase resulted in a slight increase in 801 total classrooms participating in CERDEP in 2018-19. In RAND’s Cost Analysis in Section 2, RAND noted three of the five center-based sites in its study operated below the 20-student capacity.³⁴ Therefore, it cannot be assumed each newly participating non-public classroom will include 20 CERDEP-eligible children. Non-public CERDEP classrooms may have other funding sources, including tuition-paying students and/or students who receive other funding, such as SC Vouchers.

**Table 41
Number of Schools and Providers during 2017-18 and 2018-19**

	SCDE 18-19	First Steps 18-19	Total 18-19	SCDE 17-18	First Steps 17-18	Total 17-18
Number of New Classrooms	12	34	46	25	28	53
Total Number of Classrooms	601	200	801	589	208	797
Total Number of Participating Schools or Non-public Providers	247	212	459	244	190	434

Findings and Recommendations

Finding 31: There is a slight increase in the total number of CERDEP classrooms in 2018-19, but the number of CERDEP students projected to be funded as full-time equivalents is projected to decline from 2017-18 to 2018-19.

- There were 11,734 full-time equivalents in 2017-18. The number of full-time equivalents funded during the current 2018-19 school year is expected to decrease to approximately 10,908 students: 8,890 projected full-time equivalents in public CERDEP and 2,018 budgeted full-time equivalents in non-public CERDEP.

Finding 32: Due to the projected decrease in the number of full-time equivalents in 2018-19, projected carry forward to 2019-20 may reach almost \$20.2 million, instead of the \$14.9 million carry forward that is budgeted by SCDE and First Steps.

- SCDE’s projected carry forward is an additional \$5,274,195 than the amount SCDE has initially budgeted. The projected carry forward does not include an estimate of the cost of SCDE’s plans to expend the carry forward. SCDE provided a narrative plan to expend carry forward, but expenditure amounts were not provided.

Recommendation 8: SCDE and First Steps should consider prior years’ attrition rates when developing future budgets and program plans. Analyzing attrition rates and including them in the CERDEP budgeting process may result in more realistic estimates of expenditures (instructional costs, classroom costs) and future carry forward amounts.

³⁴ Section 2, “Provider-Based information on CERDEP Costs,” p. 30.

IV. Cost Analysis for Future CERDEP Funding (RAND Corporation)

RAND CERDEP 2017–2018 COST ANALYSIS REPORT (PRERELEASE VERSION)

[Prerelease Version] Research Report

Cost Analysis of the South Carolina Child Early Reading and Development Education Program

Lynn A. Karoly and Celia J. Gomez

RAND Education and Labor

RR-2906

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This document has been formally reviewed and edited but not proofread. The final published version will be available on RAND's website at https://www.rand.org/pubs/research_reports/RR2906.html. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND is a registered trademark.



Preface

CERDEP is a state-funded full-day four-year-old pre-kindergarten (4K) program for children at risk of not being ready to start kindergarten. Eligible children include those who live in districts with a score of 70 percent or higher on the state poverty index and whose family income is at or below 185 percent of the federal poverty guidelines or those eligible for Medicaid. The program is implemented using a mixed-delivery system, with both public schools and licensed private center-based providers able to serve eligible children. Reimbursement occurs through a per-pupil funding amount which stood at \$4,422 for the 2017–18 academic year. In that year, the program funded about 11,700 children, with more than 80 percent of children attending classrooms in public schools.

As part of an ongoing commitment by the South Carolina legislature to evaluate aspects of the South Carolina Early Reading Development and Education Program (CERDEP), the South Carolina Education Oversight Committee (EOC) contracted with the RAND Corporation to address questions related to per pupil costs, teacher credentials, and teacher professional development. The focus of this report is the first topic: assessing the per pupil cost to deliver CERDEP as of the 2017–2018 academic year and comparing those estimates with the current instructional reimbursement rate provided by the state. More specifically, this report addresses the following questions:

- What are the “ingredients,” in terms of personnel, facilities, educational materials, and other supplies, required to deliver CERDEP in public and private settings? What are the sources of potential variation in program costs?
- What is the estimated per-pupil cost of CERDEP? Does the per-pupil cost vary by key programmatic features, such as public versus private settings, teacher qualifications, student enrollment, or geographic area?
- How does the per-pupil cost compare to the current per-pupil reimbursement rate for CERDEP providers?

This study will be of interest to the policymakers and practitioners associated with CERDEP, as well as those interested more generally in the costs of state-funded preschool programs.

A second report from the project will examine the other two topics related to teacher credentials and professional development.

This study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, financial literacy, and decisionmaking.

More information about RAND can be found at www.rand.org. Questions about this report should be directed to karoly@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

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Summary

In the 2006–2007 school year, the state of South Carolina began funding a full-day four-year-old kindergarten (4K) pilot program in the state’s poorest districts.¹ The pilot program was founded in response to a state supreme court case ruling in a decades-long legal challenge to South Carolina’s public school–funding formula. At the time, funds for the pilot program were made available to the plaintiff school districts in the supreme court case, all of which served a high proportion of low-income families. Eight years later, in 2014, the pilot program was signed into law, made permanent, and named the South Carolina Early Reading Development and Education Program (CERDEP). CERDEP is the state’s primary initiative to promote school readiness among low-income children by providing high quality early childhood education free of charge to families.

Currently, eligible children must live in a district with a poverty index of 70 percent or higher, come from a family whose income is at or below 185 percent of the federal poverty guidelines, or be eligible for Medicaid. The program is implemented using a mixed-delivery system, with both public school districts and licensed private early care and education (ECE) centers able to serve eligible children. Oversight of the public district-based programs is provided by the South Carolina Department of Education (SCDE), while South Carolina First Steps to School Readiness (First Steps)—the statewide public-private partnership to increase school readiness—oversees implementation in private centers. In the 2017–2018 school year, CERDEP served about 11,700 students, with the large majority of children, about 83 percent, attending the program in public school districts.

Documenting and understanding the costs of CERDEP is necessary for education leaders in South Carolina to continue to deliver a high-quality 4K program. In the 2017–2018 school year, the focus of this report, the state reimbursed CERDEP providers \$4,422 per pupil to cover the costs of instruction for a traditional 180-day school year, with 6.5 hours of instruction per day. Research indicates that the full cost of early childhood programs like CERDEP can be challenging and costly to estimate. States and early childhood leaders do not always know the true program costs when funding policies and mechanisms, such as per-pupil reimbursement rates, are put in place. According to a recent report from the National Academies of Sciences, Engineering, and Medicine (NASEM), when ECE program reimbursement rates are not sufficient for covering program costs, providers may not be able to deliver high-quality services in the long run, with consequences for the stability and sustainability of the statewide program.

¹ We use the term 4K to refer exclusively to preK programs for four-year-olds, and 3K to refer to those for three-year-olds. We use prekindergarten, or preK, to refer generally to early education programs of various kinds (e.g., state or federally funded programs, or private pay programs) for three- and four-year-old children.

Thus, in an effort to inform CERDEP stakeholder decisions on CERDEP reimbursement policy, we estimate the full cost for CERDEP providers in the public and private sectors to deliver the services consistent with the program requirements. More specifically, we apply rigorous methods to address the following questions:

- What are the “ingredients,” in terms of personnel, facilities, educational materials, and other supplies, required to deliver CERDEP in public and private settings? What are the sources of potential variation in program costs?
- What is the estimated per-pupil cost of CERDEP? Does the per-pupil cost vary by key programmatic features, such as public versus private settings, teacher qualifications, student enrollment, or geographic area?
- How does the per-pupil cost compare to the current per-pupil reimbursement rate for CERDEP providers?

The first question is important for understanding the resources required to implement CERDEP, a fundamental first step toward understanding program costs. With that foundation, it is possible to then estimate CERDEP costs for specific providers based on their expenditures for CERDEP or for provider types based on a cost model (where assumptions are made about the provider circumstances, the resources required, and their prices; sometimes also called a cost-estimation model or cost calculator). Based on either data from specific providers or from a cost model, it is then possible to compare program expenditures with the per-pupil reimbursement rate to determine if the state funding is adequate to cover the program costs.

In the remainder of this summary, we first provide a brief overview of our approach to answering the study questions and then highlight the resulting key findings. We conclude with the important policy implications of our findings and the recommendations informed by the cost analysis.

Approach and Limitations

We use two complementary methods to address the three study questions: (1) collecting information on CERDEP expenditures from a small number of illustrative public and private providers; and (2) developing a cost model, informed by the providers we spoke to, to estimate CERDEP per-pupil cost under baseline assumptions and the variation in cost per pupil under alternative assumptions (e.g., program scale, local price differences, teacher qualifications and compensation, provisions of transportation). For both approaches, we focus on estimating the total cost for CERDEP providers to deliver the services consistent with CERDEP requirements. To assess total cost, we include both direct classroom-based resources required to implement the CERDEP model, as well as indirect resources that support program delivery, such as program administration and operations.

The first approach relies solely on data collected from interviews with ten purposefully selected CERDEP providers—five school districts and five private center-based providers. All

ten providers gave information on their program structure and features (e.g. number of children, classrooms, and staff; program services; sources of revenue). Following the interviews, nine providers sent further detailed financial information on their program expenditures; one of the school districts opted out of sending financial information. The approach yielded in-depth information from CERDEP providers across the state regarding the resources required for CERDEP implementation (our first study question), as well as illustrative estimates of program cost per pupil served (our second question) and whether CERDEP reimbursement was sufficient to cover total costs (our third question).

The second model-based approach builds upon well-established cost calculators developed for modeling the cost of 4K programs, modified to account for the features of CERDEP (e.g., the option to offer transportation services) and informed by the illustrative providers. We also draw on other information sources, such as salary data for South Carolina and statewide school enrollment data for the 61 South Carolina districts that offered CERDEP in 2017–2018 (out of 82 districts in the state).

The model produces estimates of per-pupil costs—in total and by major cost components—for CERDEP providers under varied circumstances. In particular, by examining four baseline provider scenarios and a variety of sensitivity analyses, the model allows us to examine how per-pupil CERDEP cost would be expected to vary according to the following factors, all of which are established cost drivers of 4K programs:

- **Provider type:** We estimate costs for school district programs and private center-based programs.
- **Staff compensation:** For private centers, we estimate costs assuming compensation parity with the salaries and benefits of public school 4K teachers and for the lower compensation levels, on average, in private centers.
- **Highest degree of lead teacher:** Again, for private centers, we estimate costs assuming the lead teacher has a bachelor’s degree versus an associate degree, an option under the CERDEP program requirements.
- **Price variation across geographic locations:** We estimate costs based on typical (i.e., median) salaries and other costs, as well as lower- versus higher-cost areas in the state.
- **Program size:** Costs are estimated for providers with one, two, and four CERDEP rooms.
- **Class size:** We estimate costs assuming the maximum class size (also known as *group size* in the ECE context) of 20 children, as well as smaller class sizes, specifically 15 and 18 children. Because we always assume two teachers in the classroom, the variation in class size is associated with a corresponding change in the staff-child ratio.
- **Expenditures for rent:** We estimate costs with and without rental costs.

- **Expenditures for transportation:** Because transportation services are optional, we estimate costs with and without transportation services being provided.

To capture these factors, the baseline cost model estimates per-pupil costs for four illustrative provider types (described in more detail in a later section) with assumed features that are as realistic as possible in terms of the cost structure that providers face in South Carolina and that also represent important sources of variation in CERDEP costs. In this way, the cost model in the second methodological approach serves to illustrate how costs vary with the provider's circumstances. In addition, the model has the advantage of providing a standardized way to compare per-pupil cost under alternative scenarios where we vary one cost parameter at a time, holding other parameters constant. This approach then is particularly relevant for addressing the second study question, beyond what we might learn from a sample of providers.

We also examine how much of the estimated per-pupil costs under the various provider circumstances would be covered by the per-pupil CERDEP reimbursement, our third study question. The cost model captures the providers' experience regarding program expenditures which can be compared with program revenue sources from the public sector (e.g., the per-pupil CERDEP reimbursement). This allows us to determine if the per pupil reimbursement rate is adequate to cover program costs for some provider types but not for other types.

Finally, to provide a point of comparison for South Carolina's CERDEP per-pupil reimbursement rate, we collected information about the reimbursement rates for state-funded full-day 4K programs in nine other nearby states: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, Virginia, and West Virginia. We also considered the reimbursement rates for the South Carolina Voucher program (SC Vouchers), funded under the federal Child Care and Development Fund (CCDF), which subsidizes the cost of child care and early learning programs in private settings for low-income working parents with children up to age 12.

Our overall approach does have several limitations that are important to understand. For our first approach, given the small number of providers for which we gathered expenditure data, we stress that we are not able to report an average statewide total per-pupil cost for CERDEP. While these programs were purposefully selected to represent different characteristics of CERDEP providers (e.g., both public and private providers of varying sizes in different parts of the state), if there are cost elements associated with CERDEP delivery not reflected in the expenditures for the ten providers, we may omit some costs. However, we also rely on well-established cost calculators developed for modeling the cost of 4K programs, which ensures that we are likely to capture the most important cost components. Further, we rely on providers' self-reports of program costs. Program expenditures can be difficult to track and report for many providers, thus there is likely to be some measurement error in our estimates for the specific providers.

In the case of the model-based estimates of CERDEP costs, we must make assumptions about program structure (e.g., program size, the number of classrooms, children per classroom), the associated resource requirements given the program structure, and the corresponding prices for those resources (e.g., staff salaries, occupancy costs). Our assumptions are informed by the

information from the ten providers and other 4K cost models. Nevertheless, varying our key assumptions may produce somewhat different estimates of cost.

Key Findings

Our findings are organized by the three study questions enumerated above and summarized in the text box that follows.

Cost Ingredients and Sources of Cost Variation

Based on information on CERDEP costs provided by five school districts and five private providers, we confirmed that the delivery of CERDEP requires expenditure in multiple categories that we group as: personnel-related, namely salaries and benefits for classroom staff and administrative staff, as well as professional development; program-related, such as classroom supplies and other instructional supports, food service, daily transportation and transportation for special events (e.g., field trips); occupancy-related, including rent (or mortgage and taxes), utilities, and repairs and maintenance; and a host of administrative costs associated with program operations from office supplies to licensing and staff clearance fees. These cost elements are similar to those identified in other cost studies of 4K programs, and are typically included in ECE program cost models (with the possible exception of transportation costs).

At the same time, despite operating programs under a common set of requirements, there are important differences across CERDEP providers that have implications for per-pupil cost. The most meaningful of these differences are:

- **Compensation:** The data from providers confirmed what has been well documented elsewhere: striking differences in salary levels and benefits packages between public school district–based programs and private centers. For our illustrative providers, lead teachers in public schools, for instance, had salaries that ranged from \$35,000 to \$52,000 compared with \$25,000 to \$43,000 for the lead teachers in private centers. These salary differences across provider type exist even for lead teachers with a bachelor’s degrees and ECE specialization. Moreover, the benefits package for public school teachers included subsidized health, dental, and vision insurance; a retirement plan; and time for paid leave, among other benefits. In total, benefits for public school teachers equated to about 45 percent of their salaries, compared with a fringe-benefit rate of about 12 percent for private centers, which mostly consisted of payroll taxes.
- **Transportation:** While all district-based CERDEP sites provide transportation services, just two of the private centers also provide transportation. For one center, the bus drivers assist in the classrooms once the children arrive at the center and they reprise their driving role in the afternoon.

Key Findings

Cost Ingredients and Sources of Cost Variation

- Delivery of CERDEP requires expenditures in multiple categories including costs for personnel, classroom materials and other instructional supports, food service, transportation, occupancy, and program administration.
- Key sources of variation in program cost structure include staff compensation levels, whether transportation services are provided, and whether the program pays rental costs (or the equivalent).

Per-Pupil Costs and Variation by Provider Context

- Based on our baseline cost model, the estimated all-inclusive annual per-pupil cost for the traditional CERDEP option (180-day school year at 6.5 hours per day, 20 pupils per classroom, state median salaries and benefits), when delivered at a site operated by a public school district, with transportation costs and rent, was about \$11,000 in 2017 dollars (or just over \$10,000 per pupil if there are no rental costs for the public site).
- The estimated per-pupil cost was almost identical for a private center-based program, with the same program features (including teacher qualifications) and parity with public school salaries and fringe benefits.
- When the private program is assumed to pay the lower wages and benefits consistent with other private child care programs, the estimated per-pupil cost falls to about \$7,000. The \$4,000 per pupil difference is entirely attributable to the public-private compensation differential.
- Assuming a CERDEP program is delivered in a higher-cost area (approximately the 75th percentile of salaries in the state), estimated per-pupil costs were about 18 percent higher. In a lower-cost area (the 25th percentile of salaries in the state), per-pupil costs were about 11 to 14 percent lower. The difference in per-pupil costs between lower- and higher-cost communities was \$2,000 to \$3,500 depending on the provider context.
- The differences attributable to program scale were small, given the model's assumptions. In contrast, costs were up to 10 percent higher and up to 27 percent higher when the class size fell to 18 pupils per classroom or to 20 pupils per classroom, respectively. This may occur if providers intentionally seek to lower class size, or it may reflect underenrollment.

CERDEP Cost Versus Reimbursement

- With the 2017–2018 CERDEP instructional reimbursement rate of \$4,422 per pupil for the traditional CERDEP option (the program variant we model), coupled with CERDEP transportation reimbursement (private centers only) and subsidized food costs, the total reimbursement per pupil falls short of provider costs by as much as 50 percent. The same is true for the hourly and daily reimbursement rates that apply for extended-day or extended-year options,
- The reimbursement gap is larger when compensation in private centers is equivalent to public school salaries and benefits, for providers in higher cost areas, and for providers that operate with a lower class size.
- Given a CERDEP per-pupil reimbursement rate which is the same regardless of provider context, the size of the differential between per-pupil cost and reimbursement will vary substantially across CERDEP providers based on their compensation schedule, geographic locale, class size, and other features that drive per-pupil costs.

- **Occupancy:** We defined occupancy costs to include rent (or mortgage and property taxes), along with utilities, repair, and maintenance. None of the public school CERDEP sites reported costs for rent or a mortgage because their buildings are fully owned. In addition, two of the five centers, those located in church buildings, reported receiving the use of their center space without charge.

Other differences in CERDEP operations that have implications for cost include the size of the group of children in the CERDEP room and the overall program size. As part of the cost model we develop, we consider the sensitivity of per-pupil CERDEP costs to variation in these key program features: compensation, transportation, occupancy, class size, and program size.

Per-Pupil Costs and Variation by Provider Context

Given the small number of CERDEP providers for whom we gathered cost information, we focus on the per-pupil cost estimates derived from our cost model. It is important to keep in mind that the model results are for illustrative programs and are conditional on a set of assumptions regarding the provider context and program structure that are designed to be as realistic as possible. The model produces robust findings that speak to the nature of the cost structure of CERDEP 4K programs.

In particular, the baseline cost model includes four illustrative provider contexts for CERDEP delivery, one that applies to public school–district programs and three that pertain to private centers (see Table S.1). The four types were selected to allow comparisons along three key provider features: public versus private and, for private providers, compensation levels and lead teacher qualifications. (The feature that changes in moving from type A to type B, from type B to type C, and from type C to type D is outlined with a box in Table S.1.) Other sources of cost differences are explored in sensitivity analyses.

In the model baseline, all four contexts assume the traditional CERDEP option: operating for 6.5 hours per day for 180 days per year. CERDEP enrollment is assumed to be 40 children in two classrooms of 20 children each. In the baseline, all program types are assumed to pay rent or have a mortgage for their facility and to offer transportation services (even though transportation is optional). For the **type A** public program site, total enrollment across all grades is assumed to be 450 students at baseline. For the type B, C, and D private centers, total enrollment is assumed to be 120 children, from infancy to 4K.

Like the type A public site, the **type B** private center is assumed to employ lead CERDEP teachers with a bachelor’s degree and compensation (salaries and fringe benefits) is assumed to be the same as those in public 4K programs. The private center provider type B is also assumed to have a lower total enrollment than type A, at 120 children in total across all ages, reflecting the different overall size of an elementary school site versus an ECE center. Thus, the differences between type A and type B programs are whether the provider is a public school district or a private center and the overall size of the school or program.

Table S.1. Key Assumptions for Four Provider Types for CERDEP Cost Model

Features	Type A	Type B	Type C	Type D
Setting	School district school or center	Private center	Private center	Private center
Lead teacher qualifications	Bachelor's with ECE	Bachelor's with ECE	Bachelor's with ECE	Associate degree
Compensation	Public school salaries and benefits	Pay parity with public site (Type A)	Center salaries and benefits	Center salaries and benefits
Total school or center enrollment	450	120	120	120

SOURCE: Author's assumptions.

NOTES: All provider types are assumed to offer the traditional CERDEP (6.5 hours per day and 180 days per year) with three CERDEP rooms in the site and full enrollment of 20 children. Facility rent (or mortgage) and transportation services are all assumed for all four types. The feature that changes in moving from type A to type B, from type B to type C, and from type C to type D is outlined with a box.

Type C private centers differ from type B centers only in having compensation consistent with pay for center-based ECE programs. **Type D** private providers are the same as type C, with the exception that the lead teacher has an associate (two-year) degree, the minimum education qualification for private centers under CERDEP. For the baseline model, we assume median salaries for South Carolina teachers and teachers in child care centers. Other unit costs are based on average prices for the state.

We present model-based estimates for CERDEP unit costs—per pupil, per pupil day, and per pupil hour—in Table S.2. Key findings are as follows:

- In our baseline model, the estimated all-inclusive per-pupil cost for the traditional CERDEP option (academic school year at 6.5 hours per day), when delivered at a site operated by a public school district, was about \$11,000 (see provider type A in Table S.2). For a private center operating with the same salary and benefit structure as the public schools, the equivalent per-pupil cost was almost identical. Thus, there is no inherent difference in CERDEP costs in public versus private settings when compensation levels are assumed to be the same and the program pays rent (or a mortgage) for its space.
- A more substantial difference in per-pupil (or per-pupil-day or per-pupil-hour) costs was between CERDEP delivered in private centers, where compensation followed center-based rates (either for a lead teacher with a bachelor's degree or an associate degree as allowed under the CERDEP requirements), versus where compensation followed public school teacher compensation. Estimated per pupil cost is about \$7,000 based on typical center-based salaries (Types C and D in Table S.2). The cost differential of \$4,000 per pupil in comparing type A or B providers with type C or D is entirely attributable to the higher salaries and benefits in the public school programs or private centers with public school compensation parity.

Table S.2. Model-Based Estimated CERDEP Unit Costs, Baseline Model by Provider Type (2017 Dollars)

Cost Component	Type A	Type B	Type C	Type D
	Public Site	Private Center, Pay Parity with Public Site	Private Center, Center Salaries	Private Center, Center Salaries and Associate Degree
Cost per pupil	10,933	10,932	7,097	6,968
Cost per pupil day	60.74	60.74	39.43	38.71
Cost per pupil hour	9.34	9.34	6.07	5.96

SOURCE: Authors' analysis.

- The other significant cost drivers were associated with local salary and price differentials, class size below the allowed level of 20 children per classroom, and whether space rental or mortgage costs (a subset of occupancy costs) were included. These differences in estimated per pupil costs are summarized in Table S.3.

CERDEP Cost Versus Reimbursement

Drawing on the model-based per-pupil cost estimates, we reach a number of key conclusions regarding the adequacy of the reimbursement rates available to public and private CERDEP providers.

Table S.3. CERDEP Per-Pupil Cost by Provider Type Under Alternative Scenarios (2017 Dollars)

Scenario	Type A	Type B	Type C	Type D
	Public Site	Private Center, Pay Parity with Public Site	Private Center, Center Salaries	Private Center, Center Salaries and Associate Degree
Baseline	10,933	10,932	7,097	6,968
Salaries and unit cost				
Lower-cost areas	9,376	9,359	6,316	6,211
Higher-cost areas	12,845	12,819	8,380	8,207
Program size				
2 CERDEP rooms	11,228	11,601	7,599	7,469
5 CERDEP rooms	10,898	10,611	6,895	6,766
Class size				
18	11,996	11,791	7,623	7,479
15	13,931	13,361	8,525	8,353
Without rent ^a	10,059	10,059	6,224	6,095
Without transportation	10,683	10,682	6,847	6,718

SOURCE: Authors' analysis.

^a Rent is a component of occupancy costs. Still included in occupancy costs are utilities, along with repair and maintenance.

- With an instructional reimbursement rate of \$4,422 per pupil for the traditional CERDEP option (the program variant we model), it is quickly evident that the reimbursement per pupil across the scenarios we examined falls short by as much as 50 percent of the estimated CERDEP per-pupil cost. Likewise, the hourly and daily reimbursement rates for extended-day or extended-year programs fall short of the model-based estimated hourly and daily costs.
- This gap between total cost and reimbursement also holds when we consider the additional per-pupil reimbursement for CERDEP providers that provide transportation and the potential reimbursement for meals under the U.S. Department of Agriculture Child and Adult Care Food Program (CACFP), a federal entitlement program. Together these public funds bring the total potential reimbursement to \$5,900 per pupil, but that still falls short of total per-pupil costs given our cost model assumptions.
- Even when we consider a narrower portion of provider costs, namely the cost components most directly attributable to a CERDEP classroom, the per-pupil reimbursement rate is not sufficient to cover the direct instructional costs, except in private centers paying the lower salaries consistent with private child care centers.
- The gap analysis also demonstrates that, given a CERDEP per-pupil reimbursement rate which is the same regardless of provider context, the size of the differential between per-pupil cost and reimbursement will vary substantially across CERDEP providers based on their compensation schedule, geographic locale, class size, and other features that drive per-pupil costs. This introduces differentials across providers in the extent to which their CERDEP costs are covered by state (or federal) funds and thus the amount of funds per pupil needed from other public or private sources to fill the gap.

Policy Considerations

The findings from our analysis raise a number of policy considerations regarding the reimbursement of CERDEP public and private providers for the services they provide. We highlight five issues in particular.

Using a Single Reimbursement Rate Versus One that Varies by Provider Context

Our analysis demonstrates that CERDEP providers, when meeting CERDEP requirements, will deliver the program with different total cost per pupil and those differences can be substantial, equating to several thousands of dollars in total per-pupil costs according to our cost model. These differences arise because of variation in compensation levels and unit prices for other resources across geographic locales, class size, and lead teacher qualifications (in the case of center-based providers), among other factors. Some of these factors are determined by providers (e.g., desired class size); others are beyond their control (e.g., local price levels).

These differences in provider cost per pupil, whether under the control of the provider or not, raise the issue of whether the reimbursement mechanism should account for cost variation through varying reimbursement rates. Currently, by using a single statewide reimbursement rate for CERDEP, the cost differences are not being recognized. With a single rate, the extent to which a provider’s costs are covered by the reimbursement will vary. Providers in lower-cost areas would cover a greater portion of their costs relative to providers in higher cost areas, all other factors held the same. Providers with a class size below 20 would have a smaller portion of their costs covered relative to providers with 20 children in each CERDEP room, all else equal.

In comparison with the nine other neighboring states we reviewed, South Carolina is not alone in using a single reimbursement rate regardless of the provider circumstance, as Alabama, Mississippi, Tennessee, and Virginia use this same approach (see the first column in Table S.4). However, five other states—Florida, Georgia, Kentucky, North Carolina, and West Virginia—do vary the reimbursement rate for their state-funded 4K program by provider context (specific features are referenced in the discussion that follows). Likewise, the reimbursement rate under SC Vouchers also varies with provider context.

If the structure of the reimbursement rate schedule accurately mirrors the pattern of cost differences by provider circumstances, a reimbursement schedule that varies with the provider context will allow for more equal treatment in the extent to which provider costs are covered. This approach, however, introduces more complexity into the process of administering provider reimbursements, which may raise program central administrative costs.

Table S.4. Reimbursement Features of State-Funded 4K Programs in Selected States

State Program	Reimbursement Rate Varies	Factors Tied to Reimbursement					Local Funds Expected To Supplement Reimbursement
		Location	Teacher Education and Compensation	Public Versus Private Provider	Class Size	Child Disability Status	
AL							✓
FL	✓	✓					
GA	✓	✓	✓	✓	✓		✓
KY	✓					✓	
MS							✓
NC	✓		✓	✓			
SC							
TN							✓
VA							✓
WV	✓		✓				

SOURCES: State 4K program websites and other materials documented in Appendix B.

Which Sources of Cost Variation to Recognize in the Reimbursement Rate Schedule

In moving beyond a single reimbursement rate, consideration must be given as to which sources of cost variation to recognize and how many dimensions in total to accommodate in the rate schedule. As more and more dimensions of variation are incorporated in the reimbursement rate schedule, administration of the reimbursement process becomes more and more complex. At the extreme, a reimbursement rate could be assigned to each provider based on its program features, the equivalent of negotiating individual provider contracts that specify the reimbursement rate. Such contracts are employed in some state and local 4K programs, such as North Carolina's 4K program and New York City's universal preschool program.

In Table S.4 we detail the factors tied to reimbursement for the five states that vary their reimbursement rate. We identified six sources of variation in these states: geographic locale; teacher education and compensation; private versus public provider status; class size; child disability status; and the number of days programs offer services. Most of the five states only vary their reimbursement rate by one two of these factors; teacher education and compensation was the most common source of variation. Georgia was the exception to this pattern, as the rates in this state vary by all the identified factors, except for child disability status. In the case of SC Vouchers for four-year-olds in full-day programs (like CERDEP), the reimbursement rate varies by geography and quality rating.

Assuming a limited number of sources of cost variation would be recognized because of administrative costs considerations, the challenge becomes identifying which sources to recognize and how many dimensions in total to incorporate. Criteria to consider could include:

- **Whether the variation in costs is outside of the provider's control.** For example, this would mean incorporating variation in the reimbursement schedule based on variation in costs across geographic locales.
- **Whether choices providers make increase program quality.** This would mean recognizing the higher per-pupil cost for private providers who opt to employ lead teachers with a bachelor's degree in ECE or a related field instead of their counterparts with an associate degree or those private providers that elect to achieve compensation parity with public providers. By linking higher per pupil reimbursement to providers choosing evidence-based higher-quality program features (such as the SC Vouchers provider payment schedule), the reimbursement schedule signals the priority given to high quality and thereby incentivizes providers to operate with high-quality features.
- **Whether the program feature supports other policy objectives.** An example would be supporting families' access to 4K programming. The current CERDEP reimbursement for transportation costs could be viewed as contributing to this goal. The additional reimbursement for a longer day or longer year is another example of adding costly features that support families and their need for care.

- **Whether a program component is one where providers qualify for reimbursement with other public funds.** An example would be excluding a reimbursement component for meals when providers qualify for CACFP reimbursement.

How Much of Provider Costs to Cover

Assuming all relevant dimensions of cost variation are identified for per-pupil reimbursement, a remaining issue is what share of provider costs should be covered by state funds. From the perspective of state policymakers, the current share of costs covered may be viewed as appropriate, though our model-based estimates suggest that providers are left with having to cover up to half of the total CERDEP costs from other sources. As public entities, we might expect school districts to have access most readily to other public funds such as district general funds. This may justify reimbursing a smaller share of CERDEP costs for public school providers relative to private center-based providers, for whom alternative funds are less likely to be available. Indeed, given the present reimbursement gap under CERDEP, private center-based providers must, by necessity, pay lower salaries and provide fewer benefits compared with school district providers in order to break even.

As indicated in the last column of Table S.4, we also reviewed whether other state-funded 4K policies address how much of the cost of the program should be covered by the state, versus the provider or other funds. Four of the states we reviewed—Alabama, Mississippi, Tennessee, and Virginia—have explicit policies that require a contribution of local funds to supplement the state reimbursement rates. As such, the state reimbursement rate is not intended to cover the full cost of the program. Notably, there is wide variation in the per pupil reimbursement rates among these states, ranging from \$2,150 per pupil in Mississippi to \$6,125 in Virginia. The range of reimbursement rates among states that are not explicit about whether the state rate is designed to cover the full cost of the program is similar: \$2,437 in Florida to \$5,850 in North Carolina. While this illustrative group of ten states (including South Carolina) is not inclusive of all states, we do not observe a clear pattern of higher reimbursement rates in states with no explicit expectation of cost-sharing between the states, the providers, and other sources of funds; indeed, the ranges nearly overlap. Consistent with our findings in South Carolina, this may suggest that despite the lack of an explicit cost-sharing mechanism, there is an implicit assumption in these states that the reimbursement rate will not cover the full cost of the program.

Considering the revenue side of the cost-versus-reimbursement equation, the state share of CERDEP costs may be determined by whether there are other sources of revenue, public or private, to fill the gap, as suggested by the criteria above. For example, CERDEP reimbursement would not include the per pupil cost of meals if providers are eligible for reimbursement of food costs under the CACFP. Providers that cannot be reimbursed by CACFP would receive the meal component of the CERDEP reimbursement schedule. If the CACFP per-pupil reimbursement rate is determined to be too low, the gap could be filled by CERDEP funds. Access to federal Title I funds provides another interesting example of a funding source for 4K programs offered by public schools. Several of the illustrative districts apply Title I funds to cover a portion of the

costs of CERDEP. If full cost reimbursement became available for school districts, it would be important to consider whether a maintenance-of-effort (MOE) requirement should be in place to ensure that district providers sustain funding from other public sources under the new reimbursement approach. Otherwise, other funding sources may be supplanted by CERDEP funds.

On the cost side, whether a cost component should be covered could vary by whether the costs are deemed essential to achieving high quality, or are optional features with no incremental benefit in terms of program impact. Exclusion of certain expenditures from CERDEP reimbursement would require a solid understanding of CERDEP features and which of those have evidence to support their implementation. Examples include higher expenditures on enrichment activities, such as extra field trips, beyond a specified threshold, or the use of a high-cost professional development model that has not been shown to be effective.

Addressing the Compensation Differential for Public Versus Private Providers

One other key policy consideration is whether the CERDEP reimbursement mechanism would institutionalize the substantial differences in compensation between public schools and private center-based providers documented in this study and elsewhere. In recent years, as a growing share of preK slots are delivered through public schools, there has been growing attention placed on the need to achieve salary parity between preK teachers in public schools versus private centers and how to achieve that goal. For example, just as public schools are required to follow a minimum salary schedule, First Steps could require that private center-based CERDEP providers adhere to the same (or modified) salary schedule for their lead classroom teachers. A higher CERDEP reimbursement would then be associated with adhering to the salary schedule. This approach ensures that the higher reimbursement to providers results in higher compensation for the program staff.

Of course, achieving compensation parity for private providers would result in an increase in the per-pupil cost of CERDEP relative to the status quo, and thus increased state funding if enrollment is to remain the same or increase. However, there would be a host of expected offsetting benefits from achieving compensation parity, such as lower rates of staff turnover (and the accompanying increase in program quality) and a reduced reliance on the part of center-based staff on social safety net programs such as Medicaid and SNAP (Supplemental Nutrition Assistance Program).

At the same time, if compensation parity is addressed for 4K teachers in private programs but not for teachers in the same program in rooms with younger children (e.g., infants, toddlers, 3K), private providers may find that the within-site disparities in compensation for similarly qualified staff would create new issues in terms of staff performance, satisfaction, and retention. Thus, addressing the issue of compensation parity must account for the disparities between public and private programs, as well as the differences across staff within private settings based on the ages of the children they serve.

Addressing the Alignment in Reimbursement Rates Across Publicly Subsidized Programs

CERDEP operates along with other programs that subsidize the cost of 4K in both public and private settings. Where providers may simultaneously participate in more than one program, as is the case with CERDEP and SC Vouchers in private centers, one issue is whether the reimbursement rates across programs are similar. If reimbursement rates are not aligned, it may provide an incentive for providers to shift toward serving children in the program with the higher reimbursement rate, all else being equal.

At present, SC Voucher rates for full-day 4K vary by the urban-rural status of the provider and the provider’s ABC Quality rating in South Carolina’s quality rating and improvement system (QRIS). As of the 2017–2018 program year, the fixed CERDEP per-pupil reimbursement rate, on an hourly basis, would have been higher than the SC Voucher hourly reimbursement rate for all provider types. All five of the illustrative center-based providers that we interviewed also serve children receiving subsidies through SC Vouchers. Thus, for these providers and others like them, they may consider the reimbursement rates in the two programs as they enroll four-year-olds in their program. Given the relatively modest difference as of 2017–2018 (a minimum of about \$328 per child on an annual basis), the incentive to serve children eligible for CERDEP over those who qualify for SC Vouchers may not be very salient from the providers’ perspective. However, if CERDEP rates are raised in the future, in recognition of the need to cover a larger share of providers’ costs, the gap between CERDEP and SC Voucher reimbursement rates will become even larger and potentially more relevant for provider decisionmaking, especially for providers with lower quality ratings and in rural areas where SC Voucher reimbursements are lower.

Recommendations

This discussion has raised a number of policy issues regarding reimbursement of per-pupil costs for CERDEP providers. Many of these issues inherently involve tradeoffs that must be considered as part of a policymaking process. We therefore recommend a series of action steps for CERDEP stakeholders in South Carolina to take in support of a deliberate process to determine the potential costs and benefits of modifying the current CERDEP reimbursement mechanism.

Recommendation 1. Convene CERDEP stakeholders to recognize the variation in CERDEP costs and identify options for an adequate and equitable reimbursement policy.

The SCDE and First Steps should hold one or more convenings with all CERDEP stakeholders—public and private providers, the Education Oversight Committee (EOC), and other relevant parties—to recognize the considerable variation in the estimated total per-pupil cost of delivering CERDEP and the potential strategies for instituting a reimbursement policy that incentivizes quality and ensures an adequate and more equitable reimbursement of provider costs. The discussions should focus on the policy considerations referenced in the last section,

such as which sources of cost variation should be incorporated in the reimbursement schedule, what the expectations are for the state’s share of CERDEP costs and how providers will fill any gap, and whether there is support for moving toward compensation parity for CERDEP teachers in public and private settings.

Recommendation 2. Conduct an analysis of the effects of changes in the reimbursement mechanism on the funding required with no change in enrollment.

Guided by the discussions from the first recommendation, EOC should undertake an analysis of the implications of changes in the reimbursement mechanism for state funding of CERDEP with no change in enrollment. If a more-complex reimbursement approach is required, consider options to minimize administrative complexity, such as the use of existing formulas for K–12 funding to adjust for geographic differences in prices. Direct contracts with providers should be considered, as well. Similar to the approach taken in the National Academies report on *Transforming of the Financing of Early Care and Education*, it may be most feasible to phase in a new reimbursement structure over multiple years or gradually across districts, given the increase in funding that would be likely be required.

Recommendation 3. Provide technical assistance to CERDEP providers to ensure they access other sources of funding to cover their costs.

To the extent that private providers, in particular, will be expected to cover a portion of their costs from other public or private sources, First Steps should offer technical assistance to providers to ensure those funds are accessed to the maximum extent possible. For example, our set of illustrative providers suggests that some private centers may not access all sources of reimbursement, such as CACFP, for which they qualify. They also may not always fully claim all available CERDEP reimbursement (e.g., extended day or summer). Technical assistance would be a valuable resource for private centers (and perhaps school districts) to support the financial viability of CERDEP providers and stable participation in the program. Together, SCDE and First Steps could collaborate on an integrated plan for providing technical assistance and consistent implementation of the support for both public and private CERDEP providers.

Recommendation 4. Collect information on provider costs and refine model-based cost estimates to support the redesign of reimbursement policy.

Drawing on in-house capacity or external expertise, SCDE, First Steps, and EOC should continue to collect information on provider costs and refine model-based cost estimates as reimbursement policies are redesigned. The validity of any reimbursement mechanism depends on the extent to which it is grounded in real-world information about how providers implement the program and the associated cost structure. An evidenced-based approach will encourage buy-in on the part of CERDEP providers and other stakeholders, as well as support from families with children and the public more generally. Likewise, information collected from providers should be periodically updated to account for changes in program delivery and the associated implications for costs.

Recommendation 5. Review alignment between CERDEP’s reimbursement rates and those for other publicly funded early childhood programs in the state.

SCDE, First Steps, EOC and other state leaders should review the reimbursement rates for CERDEP and compare them with those of the other publicly funded early childhood programs in South Carolina that apply to 4K. This comparison is particularly relevant for private center-based CERDEP providers, as they also qualify to serve four-year-old children eligible for SC Vouchers. The review would determine the consequences of any current differences in the reimbursement rates across provider types, and assess the potential consequences in terms of participation in the subsidized program. If changes are made in the future to the reimbursement rates for CERDEP, the consequences for the difference in the reimbursement rates with SC Vouchers or any other relevant subsidized 4K program should be taken into account.

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Abbreviations

3K	state-funded three-year-old prekindergarten
4K	state-funded full-day four-year-old prekindergarten
ASQ	Ages and Stages Questionnaire
BLS	U.S. Bureau of Labor Statistics
CACFP	Child and Adult Care Food Program
CCDF	Child Care and Development Fund
CDA	Child Development Associate (credential)
CDEPP	Child Development Education Pilot Program
CERDEP	Early Reading Development and Education Program
CPI	Consumer Price Index
ECE	early care and education
EOC	Education Oversight Committee
EIA	Education Improvement Act
FTE	full-time equivalent
First Steps	South Carolina First Steps to School Readiness
MOE	maintenance-of-effort
NAEYC	National Association for the Education of Young Children
NASEM	National Academies of Sciences, Engineering, and Medicine
NIEER	National Institute for Early Education Research
OELL	South Carolina Department of Education Office of Early Learning and Literacy
PCQC	Provider Cost of Quality Calculator
preK	prekindergarten, more generally, for three- and four-year old children
QRIS	quality rating and improvement system
SCDE	South Carolina Department of Education
SC-ELS	South Carolina Early Learning Standards

SC Voucher South Carolina Voucher program

USDA U.S. Department of Agriculture

VPI Virginia Preschool Initiative

1. Introduction

The South Carolina Early Reading Development and Education Program (CERDEP) is a state-funded full-day four-year-old prekindergarten (4K) program for low-income children at risk of not being ready to start kindergarten (South Carolina Department of Education, 2017). CERDEP began in the 2006–2007 school year as a pilot program, in response to a court decision concerning the equity of the state school funding formula. The program is implemented using a mixed-delivery system, with both public schools and licensed private center-based providers able to serve eligible children. In the 2017–2018 school year, the focus of the report, CERDEP served approximately 11,700 children, or about 33 percent of low-income four-year-old children in the state.

As South Carolina and other states have established state-funded prekindergarten (preK)² programs, a key policy decision is how much to reimburse providers for the cost of providing the program. According to the National Institute for Early Education Research (NIEER), in the 2016–2017 school year, states spent an average of approximately \$5,000 per pupil on state-funded preK programs. However, there is wide variation in spending across states, with at least one state (New Jersey) spending nearly \$12,000 per pupil, and other states spending less than \$3,000 per pupil (Friedman-Krauss et al., 2018). Variation in state spending may capture true differences in the cost of preK programs based on program requirements and other factors, or it may reflect differences in the extent to which state funding covers the full cost of providing a 4K program. True cost differences may arise, for example, from differences in program delivery and structure (e.g., mixed delivery or not, part- versus full-day programs, the length of the program year), requirements for teacher qualifications and associated compensation, the population served and hence any additional services provided to account for higher needs, and differences in the cost of living across states. But states vary as well, in the extent to which local funds on the part of school districts or private providers are expected to contribute to the cost of providing preK programming.

In the 2017–2018 school year, CERDEP providers were reimbursed \$4,422 per student, slightly under the national average for per-pupil spending on state-funded preK programs. All CERDEP providers were reimbursed the same amount per pupil, regardless of provider type or geographic location in the state. Some states follow this same model of a single reimbursement rate, while others have varying rates depending on the provider circumstances. For example, per-pupil state funding for Georgia’s state-funded preK program, the Georgia Preschool Program, varies by a number of factors, including provider type (private or public), program geographic area, and teacher qualifications.

² We use prekindergarten, or preK, to refer generally to early education programs of various kinds (e.g., state or federally funded programs or private pay programs) for three- and four-year old children. We use the term 4K to refer exclusively to preK programs for four-year-olds, and 3K to refer to those for three-year-olds.

A recent report from the National Academies of Sciences, Engineering, and Medicine (NASEM) suggests that the financing mechanism (e.g., reimbursement rates) for many preK and other early care and education (ECE) programs limit providers' ability to create supportive learning environments for participating children and families (NASEM, 2018). When program reimbursement rates (or the amount states reimburse providers for serving children) are not sufficient for covering program costs, providers may not be able to deliver high-quality services in the long run, with consequences for the stability and sustainability of the statewide program (Barnett and Robin, 2006; NASEM, 2018). The full cost of preK programs can be challenging and expensive to estimate, especially because information on providers' operating costs is not routinely collected in administrative data systems, and primary data collection is expensive (Davis et al., 2017).

In this report, we focus on estimating the total cost for CERDEP providers in the public and private sectors to deliver services consistent with the program requirements. To assess total cost, we include both direct classroom-based resources required to implement the CERDEP model, and indirect resources that support program delivery. More specifically, we apply rigorous methods to address the following study questions:

- What are the “ingredients,” in terms of personnel, facilities, educational materials, and other supplies, required to deliver CERDEP in public and private settings? What are the sources of potential variation in program costs?
- What is the estimated per-pupil cost of CERDEP? Does the per-pupil cost vary by key programmatic features, such as public versus private settings, teacher qualifications, student enrollment, or geographic area?
- How does the per-pupil cost compare to the current per-pupil reimbursement rate for CERDEP providers?

Documenting program costs is necessary for education leaders in South Carolina and across the nation to understand the resources required for delivering a high-quality preK program and to determine whether current reimbursement rates are adequate for supporting the delivery of high-quality programs. In particular, the first question is important for documenting the complete set of resources required to implement CERDEP, a fundamental first step toward understanding program costs. With that foundation, it is possible to then estimate CERDEP costs for specific providers based on their expenditures for CERDEP or for provider types based on a cost model (where assumptions are made about provider circumstances, the resources required, and the price of those resources; sometimes also called a cost-estimation model or cost calculator). Based on either data from specific providers or from a cost model, it is then possible to compare program expenditures with the per pupil reimbursement rate to determine if the state funding is adequate to cover the program costs.

Approach and Limitations

To address our study questions, we use two complementary approaches: (1) collecting information on CERDEP expenditures from a small number of illustrative public and private providers; and (2) developing a cost model, informed by the providers examined in the first approach, to estimate the CERDEP per-pupil cost under baseline assumptions and the variation in cost per pupil under alternative assumptions (e.g., program scale, local price differences, teacher qualifications and compensation, provision of transportation) consistent with the CERDEP requirements. While either approach could be used in isolation, by combining the two methods, we have a stronger foundation for understanding CERDEP costs and identifying policy implications.

The first analytic approach provides us with in-depth information from ten CERDEP providers across the state regarding the resources required for program implementation (our first study question), as well as illustrative estimates of program cost per pupil served (our second question), and whether CERDEP reimbursement was sufficient to cover total costs (our third question). Resource and time limitations precluded us from collecting such cost information from a larger representative sample of providers in the state, which would have allowed us to examine the sources of cost variation. Nevertheless, the small number of illustrative providers is especially useful for understand program cost structure, our first question about the required CERDEP ingredients, which then informs the model-based estimates that comprise our second strategy.

The second model-based approach has the advantage of providing a standardized way to compare per-pupil cost under a set of baseline assumptions and then under alternative scenarios where we vary one cost parameter at a time, holding other parameters constant. This approach then is particularly relevant for addressing the second and third study questions in a structured way, beyond what we might learn from a sample of providers. The model serves to illustrate major cost drivers, as well as how much of the total per pupil costs are covered by the CERDEP reimbursement mechanism for providers in different contexts.³ By tailoring the cost model to reflect the information we gathered from the ten public and private providers, the cost model reflects real-world information that is tailored to the CERDEP context, rather than using an off-the-shelf tool.

Our overall approach does have several limitations that are important to understand. First, given the small number of providers for which we gathered expenditure data, we stress that we are not able to report an average statewide total per-pupil cost for CERDEP. We interviewed just five private providers (about 3 percent of participating providers) and five school districts (about 8 percent of participating districts). While these programs were purposefully selected to

³ Such a model can also provide the basis for setting reimbursement rates that account for variation in provider costs that are expected to arise because of variation in provider cost components (e.g., the lead teacher qualifications and compensation, whether rent is paid, whether transportation services are provided) and other factors such as local prices.

represent different characteristics of CERDEP providers (e.g., both public and private providers of varying sizes in different parts of the state), the sample is too small to be representative. We use these providers to understand the cost components for CERDEP providers and to account for these cost elements in the model-based estimates. If there are cost elements associated with CERDEP delivery not reflected in the expenditures for the 10 providers, we may omit some costs. However, we also rely on well-established cost calculators developed for modeling the cost of 4K programs, which ensures that we are likely to capture the most important cost components.

For the provider-based cost estimates, we do rely on provider self-reports of expenditure details for their most recent completed fiscal year. Further, we require that providers identify the costs that apply just to their CERDEP classrooms, which is typically a subset of the children served in public school districts or private centers. Providers vary in the extent to which expenditures are tracked to the classroom level, as well as the specificity of their expenditures more generally. Thus, there is likely to be some measurement error in the provider-based estimates of per-pupil cost. For this reason, small differences in per-pupil costs across providers or for specific cost components should be interpreted with caution. In the case of the model-based estimates of CERDEP costs, we must make assumptions about program structure (e.g., program size, the number of classrooms, and children per classroom), the associated resource requirements given the program structure, and the corresponding prices for those resources (e.g., staff salaries, occupancy costs). Our assumptions are informed by the information from the ten providers and other 4K cost models. Nevertheless, varying our key assumptions may produce somewhat different estimates of cost.

We also note that our study is an analysis of the total cost to implement CERDEP under current program requirements. We do not assess how costs might vary under alternative program features (e.g., a higher class size or staff-child ratio). We are also not able to consider whether the program, as delivered, is achieving the desired outcomes or whether the resources spent on the program generate a positive return on investment. As such, this analysis does not address fundamental questions regarding the efficacy of CERDEP, its value to the state, and whether it should continue to be funded. Actions by the state legislature since the program's inception suggest there is general support for the program. For example, as described in more detail later in this chapter, the state has expanded access to the program since the 2006–2007 school year, making more districts eligible to establish CERDEP classrooms. At the same time, the cost analyses we undertake could provide a foundation for future analyses of the potential economic returns for CERDEP, based on expected or verified effects of participating in CERDEP on school readiness and other short- and longer-term outcomes.

To set the stage for the remainder of the report, the next section of this introductory chapter provides important background information on CERDEP.⁴ We also provide a brief review of prior research on the costs of preK programs and illustrate the approach that other U.S. states

⁴ For a complete review of the program history, features, and requirements, see Appendix A.

have adopted for reimbursing providers under their state-funded full-day 4K programs. We conclude the chapter with a roadmap for the remainder of the report.

Background on South Carolina CERDEP⁵

CERDEP began as the Child Development Education Pilot Program (CDEPP), a state funded early childhood education program in low-income districts in the state. The pilot program was founded in 2006 in response to a court ruling in a decades-long legal challenge to South Carolina’s public school funding formula. CDEPP was created to remedy the lack of funding for early childhood education in the state’s poorest districts. CDEPP was signed into state law as a permanent program in 2014 (South Carolina General Assembly, 2014) and renamed CERDEP. By law, the program must serve children from low-income families in the states’ poorest districts, and focus on reading and school readiness (South Carolina Department of Education, 2018c).

CERDEP is implemented using a mixed-delivery system, with both public school districts and private center-based providers able to serve eligible children. Oversight of the public school district-based programs is provided by the South Carolina Department of Education (SCDE), while South Carolina First Steps to School Readiness (First Steps)—the statewide public-private partnership to increase school readiness—oversees implementation in private providers. To be eligible to implement CERDEP, districts must have a score of 70 percent or higher on the state poverty index.⁶ These CERDEP-eligible districts may opt in or out of establishing CERDEP classrooms. Private providers may be located anywhere in the state, including in districts that do not meet the 70 percent poverty threshold. All children served by the program in either public or private settings must meet the child and family criteria described below.

In Table 1.1, we present a description of CERDEP’s key characteristics, including child and family eligibility criteria and major program requirements. Here we focus on key required features that are associated with preK program quality, many of which also have implications for program costs. (See Appendix A for a complete description of CERDEP’s features.) In particular, the National Institute for Early Education Research (NIEER) has developed a set of quality indicators (or benchmarks) for state preK programs. In the 2017 State Preschool Yearbook, NIEER revised and released ten new benchmarks for quality, including curriculum supports and staff professional development requirements (Friedman-Krauss et al., 2018).

⁵ This section draws heavily from the following: Friedman-Krauss et al. (2018), South Carolina Education Oversight Committee (2018), South Carolina Education Oversight Committee (2017); South Carolina Department of Education (2018a, 2018b), South Carolina First Steps (2018a, 2018b).

⁶ The poverty index is determined by the state’s General Assembly and is calculated based on the percentage of students and families in a district enrolled in Medicaid, Temporary Assistance for Needy Families, the Supplemental Nutrition Assistance Program, and Department of Social Services Foster Care.

Table 1.1. CERDEP Features in Private and Public Providers, and corresponding NIEER Quality Benchmarks

Program Feature	CERDEP Requirements	Applicable (New) NIEER Standard	Meets Standard ^a
Child/family eligibility	Child must be 4 by Sept 1 and family must have (a) income at or below 185 percent of the federal poverty guidelines or (b) be Medicaid eligible	None	–
Licensing	Must be licensed by the South Carolina Department of Social Services	None	–
Service options	<ul style="list-style-type: none"> Traditional year: 180 days; 6.5 hours/day Extended day: 180 days; up to 8.5 hours/day Extended year: up to 220 days; 6.5–8.5 hours/day Summer: up to 220 days; 180 days at 6.5–8.5 hours and 40 days of summer at 8.5 hours 	None	–
Maximum class size and staff-child ratio	20 children 1:10 staff-child ratio	7 / 8. Maximum class size and staff-child ratio	Yes
Early learning standards	<i>South Carolina Early Learning Standards</i> guide children's learning and development	1. Early learning and development standards	Yes
Curriculum	<ul style="list-style-type: none"> Big Day in Pre-K (public only) Creative Curriculum High Scope InvestiGator Club (public only)^b Montessori World of Wonders (public only) 	2. Curriculum supports	Yes
Lead teacher degree	<u>Public</u> : Bachelor's degree <u>Private</u> : Associate degree (with documentation of working toward a bachelor's)	3. Teacher degree	No
Lead teacher specialization in early childhood	<u>Public</u> : Teaching certificate in early childhood <u>Private</u> : Associate degree in early childhood, a CDA, or other specialized ECE training	4. Teacher specialized training	Yes
Instructional assistant degree	High school degree	5. Assistant teacher degree	No
Kindergarten readiness assessments	All children must be assessed at the start and end of the year by an approved reading assessment: <ul style="list-style-type: none"> Individual Growth & Development Indicators Early Literacy (public only) PALS- Pre-K (public only) Teaching Strategies GOLD 	None	–
Screenings and referrals	No requirements; health and developmental screenings recommended	9. Screenings and referrals	No
Teacher PD	15 hours of PD for teachers	6. Staff PD	Yes
Monitoring/CQI system	Regular monitoring and structured classroom observations	10. CQI system	Yes

NOTES: Abbreviations: CQI = continuous quality improvement; PD = professional development.

a As determined by NIEER (Friedman-Krauss et al., 2018).

b Curriculum approved for the 2018–19 school year only.

SOURCES: Friedman-Krauss et al.(2018), South Carolina Education Oversight Committee (2017, 2018), South Carolina Department of Education (2018a, 2018b), South Carolina First Steps (2018a, 2018b).

In the final two columns of Table 1.1, we indicate, where relevant, the corresponding NIEER standard, and whether the CERDEP features meet the applicable benchmark (as determined by NIEER’s most recent analysis of information from the 2016-2017 school year). As of 2016–2017, CERDEP met seven of ten quality metrics. In comparison to other states, meeting seven benchmarks puts South Carolina in the middle to the high end of the distribution in the 2016–17 school year (the most recent with comprehensive data). Only three states—Michigan, Alabama and Rhode Island—meet all ten, while five states met nine. Ten states met fewer than half of the benchmarks. There is an extensive body of research literature evaluating how to define and measure quality in preK and childcare settings, and whether these quality metrics are related to child outcomes.⁷ While a literature review on preK quality or the features of the CERDEP program is outside the scope of this report, the NIEER standards provide useful evidence-informed benchmarks for quality, because all the standards were developed by identifying the common characteristics of effective, research-based preK programs (Friedman-Krauss et al., 2018).⁸

To enroll in CERDEP, children living within CERDEP-eligible districts must have reached age four on or before September 1 and meet one of the following criteria: (a) have family income at or below 185 percent of the federal poverty guidelines or (b) be eligible for Medicaid. Families can choose to apply for a CERDEP slot in either a public school district or a private provider. In the 2017–2018 school year, 64 districts were CERDEP-eligible and 61 opted into the program—approximately 74 percent of the state’s 82 total districts. Additionally, 197 private providers across the state implemented CERDEP in 2017–2018. In this school year, CERDEP served a total of 11,735 children served; the large majority of children—9,789 or about 83 percent—attended a CERDEP classroom in a public school district, with less than 2,000 children attending such classrooms in private providers. Based on recent state estimates, the 11,700 children served by CERDEP represented about 33 percent of all low-income children in the state at the time.⁹

All programs must operate for at least 180 school days, five days a week, with at least 6.5 hours of instruction per day—or what the program refers to as the *traditional school year* service option. In the 2017–2018 school year, the state’s General Assembly made additional funds available to expand CERDEP offerings. CERDEP providers had the option of three different expansions which included: *extended day*—180 days per year and up to 8.5 hours of instruction per day; *extended year*—up to 220 days per year and 6.5–8.5 hours of instruction per day; and *summer*—up to 220 days per year total with 180 days of 6.5–8.5 hours during the school year

⁷ See for example: Burchinal et al., 2010; National Institute for Child Health and Development Early Child Care Research Network, 2002, 2003; Keys et al., 2003; Zaslow et al., 2011.

⁸ For a more detailed description of CERDEP’s features in relationship to NIEER’s standards, see EOC, 2017, 2018. In addition, RAND’s forthcoming companion report on CERDEP will explore aspects of the CERDEP, including the teacher education requirement and the teacher professional development opportunities.

⁹ Based on estimates of low-income children in the state from EOC (2018).

and 40 days of a summer program with up to 8.5 hours of instruction per day.¹⁰ In 2017–2018, the majority of districts and private providers (about 60 percent each) opted into the summer program option (see Appendix A for a complete breakdown of the program options). As discussed in more detail in later sections, each service option is associated with a different per-pupil reimbursement rate. For all service options, the classroom size is capped at 20, and the teacher-child ratio within a classroom cannot exceed 1:10. All CERDEP providers are required to purchase and use one of the approved, research-based program curricula listed in Table 1.1. In addition, educators must follow the South Carolina Early Learning Standards.

The requirements for lead teacher qualifications differ across the public and private settings. In the school districts, all lead teachers are required to have a bachelor’s degree and a South Carolina teaching certification in early childhood education. In the private settings, teachers with bachelor’s degrees are preferred, but lead teachers are only required to have a two-year college degree in early childhood education, or a two-year college degree in another field with additional early childhood experience (such as having a CDA credential). All lead teachers without a 4-year degree must show evidence that they are enrolled in four-year teacher education program with an emphasis on early childhood education. Once hired, CERDEP requires that all lead teachers complete 15 hours of professional development per year.

CERDEP Reimbursement Mechanisms

The SCDE and First Steps are responsible for reimbursing the CERDEP districts and private providers with state funds to pay for the program. The reimbursement structure has three main components: 1) reimbursement for instruction, 2) reimbursement for transportation, 3) and funds for materials and equipment for new classrooms. The state General Assembly sets the reimbursement rates depending on available state funding. The rates are the same across all providers in public and private settings and across all state regions. In Table 1.2 we detail the reimbursements for these components starting with the first year of the program through the 2018–19 school year.

At the program’s inception in the 2006–07 school year, providers were reimbursed \$3,077 per pupil. This starting rate was based, in part, on initial estimates produced by the EOC on the per-pupil cost for a CERDEP classroom in either a public or private setting (South Carolina Education Oversight Committee, 2006). The estimated costs per pupil were \$3,647 for a CERDEP classroom in a public school with a certified teacher, and \$2,693 per pupil for a certified teacher in a private setting. The estimates were based on median salary information for teachers and teaching assistants in South Carolina, in both public schools and private centers at

¹⁰ First Steps and SCDE defined the extended year and summer options differently. As defined by SCDE, the public districts had the option of between 6.5–8.5 hours of instruction per day for extended year, while the private providers who implemented the extended-year option capped their hours at 6.5, as defined by First Steps. Similarly, for the summer option, public schools had the option of between 6.5–8.5 hours of instruction for the 180 days of the school year, and 8.5 hours of instruction for the 40 day summer program. The private providers who implemented the summer option implemented only 6.5 hours during the school year and 8.5 hours per day of summer instruction.

Table 1.2. CERDEP Reimbursement Rates from 2006–2007 to 2018–2019

School Year	Instruction (in nominal dollars)	Transportation (in nominal dollars)*	Materials and Equipment for New Classrooms
2006–2007	3,077.00	185.00	Up to \$10,000 per classroom
2007–2008	3,931.00	550.00	"
2008–2009	4,093.00	550.00	"
2009–2010	4,093.00	550.00	\$1,000 per pupil for providers enrolling 1 to 6 children; support not to exceed \$10,000 for providers enrolling 7 or more children
2010–2011	4,218.00	550.00	"
2011–2012	4,218.00	550.00	"
2012–2013	4,218.00	550.00	"
2013–2014	4,218.00	550.00	"
2015–2016	4,218.00	550.00	"
2016–2017	4,323.00	550.00	"
2017–2018	4,422.00	561.63	"
2018–2019	4,510.00	574.00	"

* With the exception of 2006–07 when both private and public providers could claim transportation costs, the transportation reimbursement rate applies to private providers only.

NOTE: " = no change from previous year.

SOURCE: Private communication from EOC.

the time. The assumed fringe benefit rates were 28 percent and 20 percent in public and private settings, respectively. Classroom instructional materials were estimated at \$60 per pupil and transportation services at \$185 per pupil.

The reimbursement rate saw its largest increase—approximately \$854, or 28 percent—after that first year, bringing the rate to \$3,931 in 2007–2008. By 2017–2018 the rate had increased to \$4,422 with a final boost to \$4,510 in 2018–2019. Overall, the reimbursement rate for instruction has increased \$1,433, or about 47 percent, since the program began. This increase outpaces general inflation.¹¹

The rates cited above all pertain to the traditional school year CERDEP option (i.e., 180 days of instruction at 6.5 hours per day). As described above, in the 2017–2018 academic year, the General Assembly made funds available for a CERDEP expansion of program options. Providers could pick from three new options: extended day, extended year, or summer. To implement each of the service options, programs received additional funds beyond the base \$4,422 per pupil; we present these rates in In Table 1.3. These rates appear to be calculated as a portion of the base rate. For example, assuming a 180-day school year and 6.5 hours of instruction per day, the base reimbursement rate translates into an hourly rate of \$3.78. Thus, for the extended-day option, programs received an additional \$3.78 per hour per pupil for the extension of the program from

¹¹ The inflation rate from 2006 to 2018, based on the Consumer Price Index (CPI), was about 24.4 percent according to the Bureau of Labor Statistics (BLS) inflation calculator. The CPI is a general measure of price trends. As such, it is not intended to capture price changes in specific sectors such as education or ECE. Thus, whether CERDEP reimbursements have kept pace with the cost of providing the program would require the use of a price index that captures price changes for the personnel and other resources required to implement the program.

Table 1.3. CERDEP Expansion Service Options Reimbursement Rates

Service Option	Additional Reimbursement Beyond Base Rate
Extended Day	\$3.78 per additional hour (up to 2 hours beyond 6.5)
Extended Year	\$24.56 (6.5 hours) or \$34.02 (8.5 hours) per additional day
Summer	\$34.02 (public) or \$32.13 (private) ^a per additional summer school day (up to 40 days, at 8.5 hours per day)

^a The difference in the additional per-day funding rate between public and private providers for the Summer options appears to be due to a calculation error in program documents. EOC confirmed in internal communication that reimbursement rates do not differ between public and private settings. SOURCE: South Carolina Department of Education (2018a) and South Carolina First Steps (2018a).

6.5 hours to up to 8.5 hours. The same logic was used to calculate the additional reimbursement for the extended year and summer options (i.e., \$4,422 annual reimbursement rate divided by 180 days equals \$24.56 per day).

With the exception of 2006–2007, the per-pupil transportation rate has been fairly constant over the years with a rate of \$561.63 per pupil in 2017–2018.¹² As of the 2007–2008 school year, only private providers are eligible to claim transportation costs; the districts are expected to absorb the transportation costs into the countywide school transportation budget. The last component of the reimbursement structure is the funds available to providers when they open new classes; in the 2017–2018 school year, programs could receive a max of \$10,000 total per classroom, depending on the additional CERDEP children to be served.

Early Childhood Landscape and other ECE Funding in South Carolina

CERDEP is not the only publicly funded ECE program in the state. In 1984, the Half Day Child Development Program was created as part of the Education Improvement Act (EIA). South Carolina districts not participating in CERDEP can use EIA funds to implement a part-day (at least 2.5 hours per day) preschool program for at-risk four-year-olds. Some districts use other funds to extend the program to full-day service. SCDE does not set a per-pupil reimbursement rate, but determines public school districts’ funds for the program based on kindergarten enrollment and the district poverty index. Public schools also have access to federal funds to supplement their 4K programs, including Title I funds of the Elementary and Secondary Education Act (as amended by the Every Student Succeeds Act). Title 1 funds support local educational agencies and schools with high numbers or high percentages of children from low-income families. Districts can also use funds authorized by the Individuals with Disabilities Education Act to provide preK services for children with disabilities.

South Carolina also has a number of Head Start programs. Enrollment figures for the 2017–2018 school year indicate that over 13,000 children were served by Early Head Start or Head

¹² Based on the BLS inflation calculator, the CERDEP transportation reimbursement rate has not kept pace with inflation, having increased only four percent since the 2007–2008 school year. The same caveat applies that the Consumer Price Index captures general price trends which may differ for the transportation sector of interest here.

Start programs in South Carolina.¹³ Some of the private CERDEP providers also receive Early Head Start funding, Head Start funding, or some combination of the two, and operate multiple programs simultaneously.

The South Carolina Voucher program (SC Vouchers) is another mechanism to subsidize the cost of child care and early learning programs in private settings for low-income working parents with children up to age 12. The program, which reimburses child care providers for some or all of the cost of a child’s tuition, is administered by the South Carolina Department of Social Services and funded by the federal Child Care and Development Fund (CCDF), which was reauthorized by the 2014 Child Care and Development Block Grant. Many of the private providers that administer CERDEP also accept SC Vouchers. As a point of comparison to CERDEP, the provider reimbursement rates for SC Vouchers vary by provider characteristics, including the provider type (e.g., licensed centers, family child care homes); providers’ rating on the state’s quality rating improvement system (QRIS), ABC Quality; geographic locale (urban versus rural settings), child age, and hours of care (full- or part-time).¹⁴ For example, the reimbursement rate that applied during the 2017–2018 federal fiscal year for three- to five-year-old children receiving full-time care (up to 10 hours per day) at an urban licensed center with the highest ABC Quality rating was a maximum of \$175 per week, the equivalent of \$35 per day or \$3.50 per hour assuming a 10-hour day.¹⁵ This is less, on an hourly basis, than the \$3.78 per hour reimbursement for CERDEP (see Table 1.3). Since the SC Vouchers payment rate is lower for four-year-olds in centers in rural areas or in centers with lower quality ratings, the reimbursement rate for CERDEP exceeds the equivalent hourly reimbursement for SC Vouchers under all circumstances. Over the course of a 180-day program for 6.5 hours per day, the gap is equivalent to a minimum of \$328 per child.

Finally, both public districts and private centers can apply to receive funds from the U.S. Department of Agriculture (USDA) Child and Adult Care Food Program (CACFP), a federal entitlement program, to reimburse the cost of food service for CERDEP and other preK programs.

¹³ Source: Unpublished data from the South Carolina Head Start Collaboration Office, received from the EOC via internal communication with the authors.

¹⁴ Reimbursement rates for SC Vouchers are based on periodic market surveys of the prices that providers charge for care of children of different ages and hours of service. Rates are based on the price level at the 75th percentile for ABC Quality level C providers and up to the 85th to 90th percentile for providers with the highest quality ratings (South Carolina Department of Social Services, 2018). It is important to recognize that the market-based survey captures the price that providers charge, which is not necessarily the same as the full cost to providers of providing the care (Davis et al., 2017).

¹⁵ Source: Unpublished data from EOC and the South Carolina Department of Social Services.

Reimbursement Mechanisms in Publicly-Funded Preschool Programs in Other States

To provide further context for the reimbursement policy for CERDEP 4K in South Carolina, we reviewed the reimbursement rates for nine neighboring state-funded 4K programs, namely:

- Alabama First Class Pre-K
- Florida Voluntary Prekindergarten Program
- Georgia Preschool Program
- Kentucky Preschool Program
- Mississippi Early Learning Collaborative
- North Carolina Pre-K Program
- Tennessee Voluntary Pre-K
- Virginia Preschool Initiative (VPI)
- West Virginia Universal Pre-K.

We display key characteristics of these programs and CERDEP in Table 1.4. As indicated, these programs are similar to CERDEP in terms of a number of characteristics that can drive program costs; for example, whether the program is targeted at certain populations (e.g. low-income families) or universal, the program's class size and teacher-child ratio, and the program's required teacher credentials. Like South Carolina, four of the other state-funded programs are targeted to low-income families and children with other risk factors, and all programs have a maximum class size of about 20 children, with staff-child ratios ranging from 1:9 to 1:11. Florida is the only other state that, like South Carolina for private providers, does not require all lead teachers to have a bachelor's degree. Using the NIEER benchmark standards as indicators of quality, there is wide variation among these programs. The Florida Voluntary Prekindergarten program meets just two benchmarks, while Alabama First Class Pre-K meets all ten.

In Table 1.5, we present detailed information about the per-pupil reimbursement policy in each state-funded 4K program, including the reimbursement mechanism for instruction, the factors tied to reimbursement, the maximum per-pupil reimbursement rate for a standard academic year, and other costs for which programs are reimbursed. We compiled this information from a review of publicly available documents. Note that comprehensive data on state reimbursement policies are not routinely collected or reported in many states. In multiple instances, current information was not available; we present information for the most recent year for which data were identified. Despite the lack of complete current information, the details on the other programs helps to situate South Carolina's reimbursement rate in the context of other neighboring states.

Table 1.4. Features of State-Funded 4K Academic-Year Programs in Selected States

State Program	4K Eligibility	Key Program Features		NIEER Standards Met
Alabama First Class Pre-K	All eligible	Class size:	20	10
		Teacher-child ratio:	1:10	
		Lead teacher:	BA	
		Assistant teacher:	CDA or 9 ECE/CD credits	
Florida Voluntary Prekindergarten Program	All eligible	Class size:	20	2
		Teacher-child ratio:	1:10	
		Lead teacher:	CDA or equivalent + training	
		Assistant teacher:	None	
Georgia Preschool Program	All eligible	Class size:	22	8
		Teacher-child ratio:	1:11	
		Lead teacher:	BA in ECE, CD, ECE SpEd	
		Assistant teacher:	CDA	
Kentucky Preschool Program	Targeted to children in low-income families (<160% FPL) or with other at-risk characteristics	Class size:	20	7
		Teacher-child ratio:	1:10	
		Lead Teacher:	BA in ECE, CD, ECE SpEd	
		Assistant Teacher:	HSD	
Mississippi Early Learning Collaborative	Some providers targeted to children in low-income families (eligible for Head Start)	Class size:	20	9
		Teacher-child ratio:	1:10	
		Lead Teacher:	BA in ECE, CD	
		Assistant Teacher:	AA in ECE, CD	
North Carolina Pre-K Program	Targeted to children in low-income families (< 75% of SMI) or with other at-risk characteristics	Class size:	1	8
		Teacher-child ratio:	1:9	
		Lead Teacher:	BA in ECE, CD	
		Assistant Teacher:	HSD	
South Carolina CERDEP	Targeted to children in districts with high poverty (70% or higher) and in low-income families (< 185% FPL) or with other at-risk characteristics	Class size:	20	7
		Teacher-child ratio:	1:10	
		Lead teacher (pub.):	BA in ECE	
		Lead teacher (priv.):	AA in ECE or CD, working toward BA	
		Assistant teacher:	HSD	
Tennessee Voluntary Pre-K	Targeted to children in low-income families (< 185% FPL) or with other at-risk characteristics	Class size:	20	5
		Teacher-child ratio:	1:10	
		Lead Teacher:	BA in ECE, CD, ECE SpEd	
		Assistant Teacher:	HSD	
Virginia Preschool Initiative (VPI)	Targeted to children in low-income families (< 200% FPL) or with other at-risk characteristics	Class size:	20	6
		Teacher-child ratio:	1:10	
		Lead Teacher:	BA in ECE, CD, CDA	
		Assistant Teacher:	CDA	
West Virginia Universal Pre-K	All eligible	Class size:	20	9
		Teacher-child ratio:	1:10	
		Lead Teacher:	BA in ECE, CD, ECE SpEd	
		Assistant Teacher:	HSD	

NOTES: All data pertains to the 2016–17 school year except Florida where the features are for the 2013–14 year. Abbreviations: AA = associate degree; BA = bachelor’s degree; CD = child development; ECE = early childhood education; HSD = high school diploma; SpEd = special education.

SOURCES: Friedman-Krauss et al. (2018); Barnett and Kasmin (2016).

We show three different reimbursement mechanisms among these ten states according to Barnett and Kasmin (2016): (1) per-pupil discretionary grant—a designated per-pupil reimbursement rate determined by the legislature’s budgetary process, typically without reference to provider cost information; (2) per-pupil (discretionary) formula grant—similar to the first approach, but which uses a formula to adjust the grant for student or district needs; or (3) per-pupil school funding formula—the same approach typically used by states to determine state funds for K–12 education. South Carolina falls into the second category. As described earlier, all CERDEP providers in South Carolina are reimbursed the same amount per pupil for instruction, so there are no factors tied to the reimbursement rate. Kentucky and Tennessee’s reimbursement mechanisms are similar to South Carolina’s in that they both employ a per-pupil formula grant as well. However, unlike South Carolina, Kentucky makes additional per-pupil funding available for children with disabilities, while in Tennessee local districts are required to match the grant from the state to supplement funds for the program. Indeed, like four of the 4K program policies we reviewed, Tennessee’s policy is explicit: state funds are not intended to cover the full cost of instruction, and local matching or supplemental funds are necessary. In addition to local matching funds, states find alternative ways to supplement the state funding to cover the cost of their 4K program. For example, in 2016 the Mississippi Department of Education was awarded a \$6 million grant from a private foundation to improve the quality of early childhood education in the state. The grant was intended to support activities such as professional development for staff, program evaluation, and parent engagement (Mississippi Department of Education, 2016).

Unlike South Carolina, five of the states we reviewed vary the per-pupil reimbursement rate by program or child factors. In the state of Georgia, for example, the per-pupil reimbursement rate varies by teacher education, geographic area (metro or non-metro), public or private provider status, class size, and the number of days the program is offered. North Carolina also varies the per-pupil reimbursement rate based on whether providers are public or private.

South Carolina’s 2018–2019 per-pupil reimbursement rate, \$4,510, is in the middle of the distribution among the nine states. Mississippi has the lowest rate at \$2,150; however, local governments are required to match funds for the program; the state reimbursement is not intended to cover the full cost of the program. Florida’s rate is also comparatively low; notably, Florida is the only state (aside from South Carolina for private providers) that does not require teachers to have a bachelor’s degree, and its 4K program met the fewest NIEER quality benchmarks. Virginia had the highest per-pupil reimbursement rate at \$6,125. As for reimbursement for other program costs, South Carolina and a number of other states—specifically Alabama, Georgia, and North Carolina—provide additional funds for new classroom start-up. Some states also reimburse for transportation costs and provide additional funding for extended hours during the school year, summer programs, or both.

Table 1.5. Reimbursement Features of State-Funded 4K Programs in Selected States: Most Recent Academic Year Available

State Program (Year)	State Reimbursement Mechanism	Factors Tied to Reimbursement	Maximum Per-Pupil Reimbursement for Standard Academic Year School-Day Program	Other Reimbursements (Annual)
Alabama (2018–2019)	Per-pupil discretionary grant; expectation of local contribution to achieve quality	None	\$4,860	<ul style="list-style-type: none"> • Supplement for classrooms with other funding, up to \$2,250 per pupil • New classroom, up to \$2,640 per pupil
Florida (2014–2015)	Per-pupil discretionary grant	<ul style="list-style-type: none"> • District cost differential 	\$2,508	<ul style="list-style-type: none"> • Summer option
Georgia (2018–2019)	Per-pupil discretionary grant	<ul style="list-style-type: none"> • Lead teacher education • Metro vs. non-metro area • Public vs. private provider • Class size • Number of days offering services 	\$3,087 ^a \$3,229 ^b \$3,529 ^c	<ul style="list-style-type: none"> • Transportation, ~\$150 per pupil • New classroom • Sparsity allowance
Kentucky (2018–2019)	Per-pupil school funding formula	<ul style="list-style-type: none"> • Child disability status 	\$4,491	<ul style="list-style-type: none"> • Supplement for severe/multiple disabilities, \$2,143 per pupil
Mississippi (2017–2018)	Per-pupil discretionary grant; require 1:1 local match	None	\$2,150	<ul style="list-style-type: none"> • Part-day option, \$1,075 per pupil • Extended-day option
North Carolina (2017–2018)	Per-pupil discretionary grant; based on state contract with provider	<ul style="list-style-type: none"> • Lead teacher education/credential • Public vs. private provider 	\$4,257 ^d \$5,850 ^e	<ul style="list-style-type: none"> • Administration (~4%) • New classroom • Quality funds
South Carolina (2018–2019)	Per-pupil formula grant	None	\$4,510	<ul style="list-style-type: none"> • Transportation, \$574 per pupil (private only) • New classroom, up to \$500 per pupil • Extended-day and summer options
Tennessee (2016–2017)	Per-pupil formula grant; required local match based on school funding formula	None	\$5,874	<ul style="list-style-type: none"> •
Virginia (2016–2017)	Per pupil discretionary grant shared by state and local match (50% maximum) based on index of ability to pay	None	\$6,125	<ul style="list-style-type: none"> •
West Virginia (2015–2016)	Per pupil school funding formula	<ul style="list-style-type: none"> • Educator salaries 	\$5,007 (est.)	<ul style="list-style-type: none"> • Administration and other cost factors • Transportation • Quality improvements

^a Approximate rate for a public school program with a lead teacher with a bachelor's degree and full enrollment.

^b Approximate rate for a private program in a non-metro area with a lead teacher with a bachelor's degree and full enrollment.

^c Approximate rate for a private program regardless of teacher qualification.

^d Approximate rate for a public school program with a lead teacher with a bachelor's degree; monthly rate times 9 months.

^e Approximate rate for a private program with a lead teacher with a bachelor's degree and a birth-through-kindergarten (B-K) license; monthly rate times 9 months.

NOTES: See Table 1.4 for full program names. The standardized program is 5 to 6.5 hours per day for 180 days.

SOURCES: Barnett and Kasmin (2016); state 4K program websites and other materials documented in Appendix B.

Prior Research on the Cost of High-Quality PreK Programs

Analyses of the cost of preK programs aim to estimate the value of the direct and indirect resources required to deliver the program—both resources that require cash expenditures, as well as resources provided in-kind. The latter may include, for example, space that is donated or partially subsidized, as well as classroom supplies provided by families to supplement what the program can cover. The cost of facilities is often not captured in public school district-based programs because buildings are owned outright, or costs for utilities and maintenance are recorded as part of a school or district's overhead expenses. Other overhead expenditures for program administrators and support functions may also not be included when accounting for a preK program's costs. Notably, program costs are not necessarily equivalent to the fees that parents may be charged or the reimbursement rates for publicly funded programs. Capturing information on the costs to provide a preK program is more time consuming and therefore more expensive, compared with gathering data on the prices that providers charge. Thus, such information is typically not routinely collected.

Despite the challenges of measuring the cost of preK programs and other care and early learning programs serving children before kindergarten entry, a growing body of research now documents program costs for providers. Analyses of preK program costs across multiple studies consistently show that the one of the largest expenditure components is compensation (salaries and fringe benefits) for instructional personnel (Gault, Mitchell, and Williams, 2008; Caronongan et al., 2016). Consequently, key drivers of per-child preK program costs include the education level of the staff, the salary scale and generosity of the fringe benefit package, the teacher-child ratio in the preK classrooms, and program intensity (e.g., part- versus full-day programs, academic-year versus calendar-year programs). PreK teachers in public school programs typically receive higher compensation compared with teachers in private center- or home-based programs, although some publicly funded programs require private providers to compensate teachers on the same scale as their public school counterparts (Whitebook, McLean, and Austin, 2016). Syntheses across preK program cost studies indicate that per-child costs are also higher when programs provide ancillary services (e.g., the health services component in Head Start), but they may be lower in programs with higher enrollment because of economies of scale (Caronongan et al., 2016). Costs also vary with other program features such as program size (e.g., enrollment) and with the local area cost of living.

The total cost of ECE can also be based on estimates from cost models (Davis et al., 2017). Indeed, states are now encouraged as part of CCDF to supplement the information they collect

on provider fees with data on cost of care using cost models such as the Office of Child Care’s (undated) Provider Cost of Quality Calculator (PCQC) and other methods. The basic approach of a cost model is to assume a given program structure and set of features, determine the resources required to implement the ECE program with those features in a given time period (e.g., a fiscal year), and then price out the value of all required resources. The sum of the value of the resources required is the total cost for the accounting period. Total resources can be divided by the number of children served or child hours for those children to measure cost per pupil or cost per pupil hour.

For example, the NASEM report on *Transforming the Financing of Early Care and Education* (NASEM, 2018) estimated annual cost of full-time care at the national level, assuming high-quality program features, in center and home settings. In 2016 dollars, infant care was estimated at \$35,354 on an annual basis, toddler care at \$28,203, and preschool-age care at \$13,655. These estimates are based on program features consistent with an earlier NASEM report which recommended bachelor’s-level lead teachers for all child age groups, appropriate staff-child ratios, and adequate teacher compensation (NASEM, 2015). Given that more than half of the cost of high-quality ECE is in the form of classroom and program staff salaries and benefits, adequate compensation and ratios recommended by the National Association for the Education of Young Children (NAEYC) for accreditation will lead to considerably higher costs than what providers typically offer.

Roadmap for the Report

We proceed in the next two chapters to present our methods and findings from the two-pronged approach we take to examining per pupil costs of CERDEP: first the estimates based on information gathered from ten CERDEP providers and then the model-based estimates. The final chapter summarizes the key results from the study, identifies important policy implications, and provides recommendations informed by the cost analysis findings.

2. Provider-Based Information on CERDEP Costs

This chapter presents the results of our first approach to examining CERDEP costs based on illustrative estimates derived from information provided by the ten providers surveyed for this report. The results focus on the categories of expenditures required to implement CERDEP (e.g., personnel, facilities, materials and supplies) and optional features, such as transportation and extended-day or extended-year programming. The staffing models used by programs are also examined. Together, the provider-based information contributes to our understanding of the issues raised in our first study question regarding the ingredients needed to implement CERDEP; both those directly associated with instruction, as well as indirect resources. We also use the provider-based data to provide insight into our second and third questions by estimating total per-pupil cost for the ten providers and considering whether CERDEP reimbursement would be sufficient to cover those total costs. Ultimately, the illustrative providers serve to demonstrate important features of the cost structure for CERDEP and provide a foundation for the model-based estimates covered in the next chapter. Before presenting the findings, we first detail our approach to collecting and analyzing the information from the ten providers.

Approach

To better understand the cost structure for CERDEP delivery, we worked with EOC to identify five public school districts and five private center-based CERDEP providers from which we collected information about the program features and expenditures for the most recent fiscal year. We begin by describing the characteristics of the illustrative programs. We also discuss the information that we collected through our interviews and our approach to estimating CERDEP costs based on the expenditure data. The questionnaire instruments used for the provider interviews are provided in Appendix C.

Characteristics of the Public and Private Providers Interviewed

The ten CERDEP providers were purposively selected to capture variation in program setting (public schools and private centers), program scale of operations (i.e., enrollment), and region of the state. The programs are not intended to produce a representative sample but rather to provide variation that allow us to capture relevant features of CERDEP providers that affect their cost structure. Given the proprietary nature of the information from CERDEP providers, particularly the private centers, providers and districts are not identified by name, and results are presented in a way that precludes indirect identification.

Table 2.1 summarizes key characteristics of the five public school districts and five private providers we interviewed. The features are as of the 2017–2018 school year. The variation in scale is reflected in the indicators in panel (a). In particular, the five public school districts

Table 2.1. Features of 10 CERDEP Providers Interviewed, 2017–18 Academic Year

Indicator	School Districts (N = 5)	Private Centers (N = 5)
a. Enrollment and Facilities		
Ages served prior to K	3K (1), 4K (5)	Infants, toddlers, 3K, 4K
Number of CERDEP sites	1 to 6	1
Facility	School sites only (4), school sites and stand-alone centers (1)	Own building (3); church building (2)
Total site birth to 4K enrollment	–	100 to 150
Total site 4K enrollment	20 to 64	15 to 60
Total district 4K enrollment	Less than 60 to greater than 400	–
Total district K enrollment	Less than 150 to greater than 1,000	–
Total district enrollment	About 5,000 to greater than 10,000	–
b. Other Features		
Type of provider	Public school districts	Non-profit (4) and for profit (1)
ABC Quality rating	In ABC (1), Not applicable (4)	B (2), B+ (1), C (2)
Accredited	–	None
Head Start grantee	No	Yes (1), No (4)
Accept SC vouchers	–	Yes
Title I funding	Yes	–
Fiscal year	July 2017 to June 2018	January 2017 to December 2017

SOURCE: Public records and provider interviews.

NOTES: – = not applicable.

operated CERDEP in one to six sites in their districts, typically in elementary schools, although one district had CERDEP classrooms in stand-alone centers. One district had 3K (prekindergarten for three-year-olds) classrooms, in addition to their 4K CERDEP rooms. Total district 4K enrollment (CERDEP and other 4K) and kindergarten (K) enrollment ranged from the bottom quartile of districts in the state (a small rural district) to the top quartile (a large urban district), indicating that we captured both smaller and larger districts. Total enrollment across the districts ranged from about 5,000 students in the smaller districts to over 10,000 in the largest district. The private providers all served children from birth to kindergarten entry in single sites, either in their own building or a church building. Enrollment ranged from about 100 to 150 children in total and from 15 to 60 children in their 4K (CERDEP and other 4K) classrooms. Geographically, the ten providers are located in eight of the state’s 46 counties, with 33 to 72 percent of each county’s population in rural areas.

Panel (b) in Table 2.1 records other relevant features of the ten CERDEP providers surveyed, again illustrating both common elements as well as variation. In terms of quality indicators, public school districts are generally not expected to participate in the ABC Quality QRIS program. However, one district had an ABC rating for several sites. Some or all of the elementary schools with CERDEP classrooms in the five public school districts receive federal Title I funds, though Title I funds were not always applied to the school’s preschool program.

Among the private centers, all but one were nonprofits. All had ABC Quality ratings which ranged from B to C. None were accredited by the National Association for the Education of Young Children (NAEYC), the main national accreditation organization for early childhood care and learning programs. In terms of other public funds, one private center was also an Early Head Start grantee and all private centers accept the SC Vouchers for subsidized care.

In terms of their finances, the public school districts all operate on a July to June fiscal year, whereas the private centers operate on a January to December fiscal year. Thus, in analyzing expenditure data, we will be referencing the period from July 2017 to June 2018 for the school districts and January to December 2017 for the private centers. Given the relatively low rate of current inflation, the six-month shift in the reference fiscal year for public versus private providers should not affect our ability to compare per-pupil CERDEP cost between public school districts and private centers.

Information Collected from Providers on Program Structure and Expenditures

We conducted telephone interviews with all but one of the CERDEP providers, following an interview protocol that differed somewhat between the school districts (where there were typically multiple sites) and private center-based providers (all with a single site). All ten providers who we selected and contacted agreed to participate in the interview. In the case of the school districts, we spoke with one or more district-level staff knowledgeable about the CERDEP sites they operate, often the director of early childhood programs. One school district opted out of the phone interview, and instead filled out the interview form and sent their information electronically. The interviews with center-based providers were conducted with the director of the center, and sometimes an associate administrator. The interviews, which lasted up to two hours, focused on the organization (e.g., auspices, fiscal year, type of facility, accreditation status); program structure (e.g., hours and weeks of operation, ages served, number of classrooms by age group, enrollment by age group, CERDEP enrollment for 4K, and program services); staffing patterns, required qualifications, and non-wage benefits, particularly for CERDEP classroom staff and program administrators; and sources of revenue.

The remaining sections of the questionnaire covered details on expenditures for the most recently completed fiscal year. Given our interest in estimating the per-pupil cost of CERDEP, the information we collected on expenditures needed to account for the fact that most of the district-based CERDEP classrooms were part of a larger school facility, such as an elementary school. Likewise, all of the private providers had classrooms serving younger children in addition to the 4K CERDEP classrooms. In both settings, we therefore needed to segregate expenditures for the CERDEP classrooms from those serving other age groups. Thus, expenditures were differentiated in three categories (see Table 2.2):

- **CERDEP classroom expenditures.** This included expenditures for the salaries, payroll taxes, and non-wage compensation of the lead teachers and assistant teachers in the classrooms supported with CERDEP funds. If other expenditures for staff professional

Table 2.2. Expenditure Categories and Items for Cost Analysis

Expenditure Category and Item	CERDEP Classroom Level	School or Center Level	District Level
Personnel expenses			
Classroom staff salaries	✓		
Classroom staff payroll taxes and benefits	✓		
Administrative staff salaries, taxes, and benefits		✓	✓
Other site-level staff salaries, taxes, and benefits		✓	
Other personnel-related expenses			
Professional development, training	✓	✓	
Program-related expenses			
Classroom supplies & other instructional support	✓	✓	
Food service		✓	
Transportation to and from program		✓	
Other transportation (e.g., field trips)		✓	
Occupancy expenses			
Rent / mortgage and taxes		✓	
Utilities		✓	
Repair and maintenance		✓	
Administrative and other expenses			
Office supplies		✓	
Postage and phone		✓	
Photocopying, printing, and publications		✓	
Equipment rental and maintenance		✓	
Nondepreciated equipment		✓	
Depreciation on equipment or purchase of equipment		✓	
Contractors (e.g., payroll, accounting, legal)		✓	
Insurance		✓	
Marketing and advertising		✓	
Interest and bank charges		✓	
Maintenance supplies		✓	
Licensing and fees		✓	
Dues and subscriptions		✓	
Other		✓	

SOURCE: Authors.

development or classroom materials and supplies could be assigned exclusively to the CERDEP rooms, those expenditures were recorded as well.

- Shared resources at the school or center level:** This category included all other expenditures—exclusive of compensation for classroom staff and other expenditures tied to specific classrooms—that were shared across classrooms at the school or center site. This included expenditures for the salaries, taxes, and benefits of other staff that support CERDEP (e.g., director or principal, other programmatic or administrative staff, food service staff); staff professional development; classroom materials and supplies; food service; transportation; occupancy (e.g., facility rent, utilities, repair and maintenance);

and other operating costs (e.g., telephone; postage; office supplies; advertising; licensing and fees; bank charges and credit card interest; insurance; accounting, payroll, and legal services). We also identified resources that were provided at a discount or donated, such as facility rent, utilities, or equipment. As discussed further in the next subsection, a portion of the expenditures for these school- or center-wide shared resources were allocated to the CERDEP classrooms.

- **Shared resources at the district level:** This captured support for CERDEP at the district level and only applies to public CERDEP providers. This would include a director of early childhood programs for the district and other shared district administrative expenditures. A portion of these district-level expenditures were also allocated to CERDEP classrooms.

In most cases, we discussed the expenditure information we were seeking during the interview and the provider submitted the detailed expenditure data after the interview, given the need to assemble the financial records, often with the assistance of a district financial officer or center finance director, accountant, or bookkeeper. Nine of the ten providers sent further detailed financial information on program expenditures; one of the school districts opted out of sending any additional information. One school district sent incomplete information, precluding the use of some of their data in the analyses that follow.

Approach to Estimating Per-Pupil Costs for CERDEP

A formal cost analysis would typically aim to account for the value of all resources used in the delivery of a given program, such as CERDEP. This would entail accounting for not only cash outlays, but also for the value of resources that may have been provided to the program at a discount or at no charge (e.g., subsidized or free rent, use of equipment without charge, volunteer time). This full accounting represents the value to society of the resources used, which may exceed the actual cash outlays on the part of the provider. In our case, we are interested in understanding the costs that providers face when delivering CERDEP, in order to compare it with the reimbursement they receive from the state. Thus, in our case, we focus on estimating the per-pupil cash outlays for CERDEP services, although we note when providers reported receiving donated goods or services or had the use of resources without cash expenditures (e.g., the use of donated space or a fully owned building with no mortgage).

To generate a per-pupil cost we proceeded as follows for each provider (school site or center), based upon the information gathered from our interviews:

1. Generate an estimate of total direct expenditures for CERDEP classrooms and the aggregate center, school, or district indirect expenditures that support CERDEP classrooms, where expenditures may fall into the categories listed in Table 2.2. A share of the center-, school-, or district-wide indirect expenditures are allocated to CERDEP as discussed in the next step.

2. Calculate the **proportion of shared resources to allocate as CERDEP expenses**, based on either (1) the enrollment in CERDEP classrooms as a share of total enrollment in the school or center (labeled the *enrollment share*) or (2) the share of CERDEP classrooms as a share of the total number of classrooms in the school or center (labeled the *classroom share*). In most cases, the enrollment share and classroom share were very similar so that we could use either proportion and reach a similar estimate. Nevertheless, based on whether the use of resources was likely to be proportional to enrollment or to classrooms, we used the enrollment share for all shared expenditures except for the following categories where we used the classroom share: staff professional development and occupancy.
3. Apply the shares from the second step to generate an estimate of **total direct and indirect expenditures** for CERDEP classrooms. This consists of the sum of CERDEP classroom costs, CERDEP share of expenditures at the school or center level, and (for public schools only) the CERDEP share of expenditures at the district level.
4. Calculate the **cost per pupil for CERDEP classrooms** as the total direct and indirect CERDEP expenditures divided by total enrollment in the CERDEP classrooms.¹⁶
5. Calculate the **cost per pupil-hour for CERDEP classrooms** as the per-pupil cost divided by the annual CERDEP hours. For a CERDEP site operating for 6.5 hours per day for a 180-day school year, total annual hours are 1,170.¹⁷ A similar estimate is made for the cost per pupil-day.

To maintain the anonymity of the participating providers in our study, they are referred to by letter, A to I, where A to D are the public providers and E to I are the private providers. All expenditure figures are reported per pupil or per pupil hour, rather than in their aggregate dollar values. In reporting results for the school districts, we have created an aggregate estimate of expenditures across all CERDEP sites (i.e., schools or centers), rather than reporting results for each site separately.

In order to compare cost structures across providers, we report alternative estimates of per-pupil costs after making several adjustments to account for differences in how key cost components are treated. Because of differences in how components of occupancy costs are treated across providers, with some private centers receiving partially or fully subsidized rent and school districts not paying rent for the use of their facilities, we present per pupil costs exclusive

¹⁶ Note that in some private centers, 4K classrooms had both CERDEP-funded children and children funded by other sources (e.g., parent fees or state child care subsidies). In those cases, we used the total classroom enrollment to calculate per-pupil costs. This effectively assumes that CERDEP and non-CERDEP children in the same classroom share resources evenly.

¹⁷ All private centers reported serving some CERDEP children as much as three additional hours per day. We constructed an estimated average annual hours as the enrollment-weighted average of 1,170 annual hours for the standard day (6.5 hours) and 1,710 for an extended day (up to 9.5 hours). Thus, we based an estimate of hourly costs on actual hours of service rather than the hours that may be reimbursed by CERDEP.

of occupancy costs. We likewise exclude transportation costs because not all providers, especially private centers, offer transportation.

A final adjustment is to account for differences across providers in the staff-child ratio. As noted in Chapter 1, CERDEP providers may serve up to 20 children in a classroom with a staff-child ratio of 1:10. Some providers choose to operate with fewer children in each classroom which means a lower staff-child ratio, while others had enrollment below their target of 20 children per room, which effectively lowers the staff-child ratio. Thus, we consider what the cost per pupil would have been if the same total expenditures applied for operating at full capacity of 20 children per classroom.¹⁸ This calculation effectively assumes that all CERDEP costs are fixed, so that serving a few more children in each classroom, to reach full enrollment of 20 children, will not add to the overall expenditures. This assumption is accurate for major expenditure categories such as personnel and occupancy, which are fixed given the number of rooms in use. In reality, some expenditures do vary per enrolled child, such as food costs and some classroom supplies, but these added marginal costs are likely to be small. Thus, we view the capacity adjustment as a reasonably accurate way to see how much of the variation in cost per pupil across providers might be explained by variation in the extent of full enrollment.

While we strived for a thorough accounting of all expenditures for all relevant CERDEP-related resources, there are a number of challenges in generating cost estimates for any given provider, as well as comparable estimates across providers. First, the cost estimates are most accurate for the salaries, payroll taxes, and non-wage compensation of the classroom staff in the CERDEP rooms. The compensation costs for these staff in the CERDEP classrooms are readily identifiable in accounting systems and accurately recorded. In most cases, all other resources are recorded at the school or center level and then allocated to the CERDEP rooms. We applied consistent and reasonable rules for those allocations, but they may differ, to some extent, from how resources are actually distributed across the CERDEP rooms versus other rooms in the school or center (e.g., the time usage of the director, the use of space in the facility).

Second, because of differences in accounting systems, programs did not disaggregate the expenditures in exactly the same way. For this reason, we focus on major cost components rather than detailed categories (e.g., reporting occupancy costs rather than separate components such as rent, utilities, and maintenance). Even at this aggregate level, there were some differences in how costs were assigned to different categories so that the reported expenditures in any given category will not necessarily be strictly comparable across the 10 providers.

¹⁸ This involves multiplying the estimated cost per pupil by the ratio of actual enrollment to full-capacity enrollment (i.e., 20 children times the number of classrooms). This adjustment factor is a maximum of 1 for programs that operate with 20 children per classroom and less than 1 for those programs operating with fewer than 20 children per classroom. This adjustment will therefore lower the per-pupil cost when programs are operating below full capacity.

Illustrative Provider-Based Estimates of CERDEP Costs

We now present the results based on the programmatic and financial information obtained from the five public school districts and five private providers that we interviewed. We first report on key features of CERDEP as implemented by each provider. While many features are the same because of program requirements, there are some elements that differ due to choices that providers can make such as the length of the program day, the length of the program year, and, in the case of private providers, the education level of the lead teacher. We then detail the major cost components for CERDEP providers and where there are substantial differences in cost elements. We follow with the per-pupil estimates and discuss the variation we observe for the illustrative providers and the difference between per-pupil cost and CERDEP reimbursement.

Variation in CERDEP Delivery Model Across Public and Private Providers

The structural features of 4K programs—hours per day, days per year, class size, and provision of specific services such as transportation and meals—have implications for the cost of program delivery. Table 2.3 summarizes these key features for the ten CERDEP providers we interviewed. Note that these features pertain to their overall 4K services, not just what they provide as part of delivering the portion of their program reimbursed by CERDEP. As indicated in the table, all ten providers deliver the program for 6.5 hours per day for the traditional 180-day academic year. For a few private providers, the core CERDEP full-day program was up to 8 hours, even though their reimbursement may just be for the traditional 6.5-hour CERDEP day. All five private centers also offer an extended day, with up to ten hours of total care per day. In addition, four of the school district programs extend to the summer months for six to eight weeks (sometimes just four days per week), while all of the center-based programs operate year round for up to 51 weeks.

As noted earlier, the school districts and private centers typically have more than one CERDEP 4K classroom at their site. For the school districts, CERDEP classrooms exclusively served CERDEP-eligible children, while the center-based programs sometimes had a handful of non-CERDEP-eligible children in the CERDEP classroom. In contrast, the school district sites often had other non-CERDEP 4K classrooms, typically funded with district funds.

With the exception of one school district and one private center where the programs operate with a maximum class size of 15 children, all other programs we interviewed seek to enroll 20 children per classroom, consistent with the CERDEP requirements. All providers also had a lead teacher and assistant teacher for each CERDEP classroom, meaning a ratio of at most one staff member to ten children as required. The difference in the class size, which affects the ratio, will have implications for per-pupil costs analyzed later in this chapter.

In terms of other program services, all of the district CERDEP sites provide transportation to and from school, usually as part of their existing transportation infrastructure. By contrast, just two of the private centers offer such transportation. All programs provide meals, specifically

Table 2.3. Program Structure for Ten CERDEP Providers Interviewed, 2017–2018 Academic Year

Indicator	School Districts (N = 5)	Private Centers (N = 5)
Program hours and days		
Hours per day for full-day program	6.5 hours	6.5 to 8 hours
Days per year for academic-year program	180 days	180 days
Offer hours beyond the full-day program ^a	0 of 5	5 of 5 (1.5 to 3 hours)
Offer summer/extended-year program ^a	4 of 5 (24 to 40 days)	5 of 5 (65 to 80 days)
4K enrollment beyond CERDEP		
Enrollment of non-CERDEP children in CERDEP rooms	0 of 5	3 of 5
Enrollment of 4K in non-CERDEP rooms	3 of 5	0 of 5
Class size and classroom staff		
Maximum class size	15 (1), 20 (4)	15 (1), 20 (4)
Number of teachers per classroom	Lead and assistant	Lead and assistant
Other services		
Transportation to and from program	5 of 5	2 of 5
Meals	Breakfast: 3 of 5 Lunch: 5 of 5 Snack: 1 of 5	Breakfast: 5 of 5 Lunch: 5 of 5 Snack: 5 of 5
Direct provision of developmental assessments	5 of 5	5 of 5
Direct provision of health screenings	5 of 5	0 of 5
Formal family referrals to services	4 of 5	2 of 5

SOURCE: Provider interviews.

NOTES: – = not applicable.

^aThe added hours or days beyond a 6.5-hour day or 180-day year may or may not be supported by CERDEP funding.

lunch, while all private centers also report providing breakfast and a snack, meals that are not always offered in the district-based programs and, as required, all programs conduct developmental assessments. Although it is not a CERDEP requirement, all of the school districts conduct health screenings, typically for vision, hearing, and speech, and sometimes dental and obesity screenings as well. Private providers often have third parties (such as school district staff) come to their center to do the screenings, thus they are not incurring those costs directly. Four of the five districts and two of the private centers also reported having a staff member or other resource for referring families to needed services such as cash aid, housing assistance, or subsidized health care.

Another key programmatic feature with implications for cost is the classroom staffing model, professional development supports provided to classroom staff, and fringe benefits that are part of the compensation package. As noted earlier, all ten providers staff each classroom with a lead teacher and an assistant teacher (also known as an instructional assistant). For public schools, CERDEP requires lead classroom teachers to have a bachelor’s degree with a specialization in early childhood (e.g., a teaching certificate in early childhood). As shown in Table 2.4, all public school districts reported meeting that standard. Although private centers require a minimum of

Table 2.4. Staffing Model, Supports, and Fringe Benefits for Ten CERDEP Providers Interviewed, 2017–2018 Academic Year

Indicator	School Districts (N = 5)	Private Centers (N = 5)
Lead CERDEP teacher qualifications		
Has a bachelor’s degree + ECE specialization	All lead teachers: 5 of 5	All lead teachers: 1 of 5 At least 1 lead teacher: 2 of 5*
Has a bachelor’s degree, no ECE specialization	–	All lead teachers: 2 of 5
Assistant CERDEP teacher qualifications		
Has a bachelor’s degree w/ or w/o ECE specialization	At least 1 assistant teacher: 1 of 5	At least 1 assistant teacher: 3 of 5
Provide PD beyond First Steps	5 of 5	5 of 5
Fringe benefits for classroom staff		
Health, dental, vision	5 of 5	1 of 5
Retirement	5 of 5	0 of 5
Paid sick or personal leave	5 of 5	4 of 5

SOURCE: Provider interviews.

NOTES: – = not applicable.

an associate degree (with documentation of working toward a bachelor’s degree), one of the centers employed lead CERDEP teachers who all had a bachelor’s degree with ECE specialization, and two other centers had a least one CERDEP classroom lead teacher with that qualification. All lead teachers in the two remaining centers had a bachelor’s degree but without the ECE specialization. Despite the difference in requirements, all five of the private providers had a least one lead CERDEP teacher with a bachelor’s degree. For one district and three centers, at least one of the teacher assistants also had a bachelor’s degree. All five private providers reported offering at least some additional professional development opportunities beyond what was offered by First Steps such as external conferences, online courses, and other trainings.

Finally, we note an important difference between the school district CERDEP sites and the private providers. In the districts, classroom staff receive a comprehensive set of fringe benefits (health, dental, and vision coverage; retirement contributions; and paid sick or personal leave). By contrast, all but one private center offered paid sick or personal leave, but none provided retirement contributions and just one provided subsidized health insurance. Some centers offered more benefits for the director or other administrative staff.

Expenditure Components for CERDEP Delivery

The information collected from the nine illustrative providers that sent detailed financial information can be used to identify the resources or “ingredients” required to deliver the CERDEP model, given such program requirements as teacher qualifications, class size, the ratio of classroom staff to children, the curriculum, professional development activities, and other

program features. As such, the information in this section helps to address the first study question.

Table 2.2 provided a comprehensive list of the expenditure categories and items that would be expected for a CERDEP 4K program. Although providers did not always report expenditures at the level of disaggregation in Table 2.2, at least some expenditures fell in each category for every provider. We highlight, however, three important differences in the relevance of an expenditure category or its value.

Wages and Salaries; Fringe Benefits

In reporting on the wages and salaries for CERDEP classroom staff, some providers reported the aggregate amount for all teachers, while others provided a detailed breakdown. That detail revealed striking differences, documented in other settings as well, between the wages and salaries paid to classroom teachers in public CERDEP sites versus those in private centers. For public schools, lead teachers had annual salaries that ranged from \$35,000 to \$52,000, compared with \$19,000 to \$43,000 for the lead teachers in private centers. These differences are consistent with occupational wage data assembled by the U.S. Bureau of Labor Statistics (BLS) (undated), discussed further in the next chapter. As noted above, the teacher credential requirements differ between the public and private settings. The lower education requirement in the private settings is one explanation for the disparity in pay. However, as illustrated in Table 2.4, at least one lead teacher in each of the five private providers we interviewed held a bachelor's degree and in one case the lead teacher also has their degree in ECE. As such, these data suggest that bachelor's-level teachers in private and public CERDEP settings are paid at different rates despite having similar levels of formal education.

The salary differentials were less evident for assistant teachers, where salaries ranged from \$13,000 to \$21,000 for those in public school classrooms versus \$19,000 to \$21,000 for those in centers. Again, we did not collect this salary information consistently across all providers; therefore, we acknowledge these figures are not necessarily representative of the range we would find across all CERDEP classroom staff across the state. Even so, together with the information on fringe benefits for teaching staff (Table 2.4), this set of providers illustrates the substantial differences in the total compensation packages for CERDEP teachers, particularly lead teachers, in public versus private settings.

Transportation

As noted earlier, while all public schools provide transportation services by augmenting their existing transportation system to accommodate the 4K students, just two of the private centers also provide transportation (using a small number of minibuses). For one center, the bus drivers assist in the classrooms once the children arrive at the center, and they reprise their driving role in the afternoon. For those centers without transportation, they may still have a small amount of transportation-related expenditures for field trips.

Occupancy

We defined occupancy costs to include rent (or mortgage and property taxes), along with utilities, repair, and maintenance. None of the public school CERDEP sites reported costs for rent or a mortgage because their buildings are fully owned. In addition, two of the five centers, which are located in church buildings, reported receiving the space without charge. Because we focus on expenditures from the perspective of providers, we do not impute a rental equivalent. However, to compare per pupil cost across all programs, we also report cost per pupil exclusive of all components of occupancy costs.¹⁹

Illustrative Estimates of Per Pupil Costs

Table 2.5 provides results for nine of the ten providers that supplied at least partial expenditure data: four school districts and five centers.²⁰ The table reports the estimated cost per pupil, which ranges from an average of about \$8,600 for the district-based programs to \$6,900 for the center-based sites, suggesting a higher cost per pupil in the district-based sites compared with center-based programs (a difference of about \$1,700 per pupil). The table also shows the cost components that are not included in the per-pupil cost estimate, which varies across the providers in ways that affect this comparison. For example, all five of the districts did not have rental costs for their facility (a component of occupancy costs), nor did we impute a rental equivalent. Likewise, two of the private centers either had a fully subsidized space or owned their own facility. In the case of transportation cost, three of the five center-based programs did not provide transportation services, while one district did not report their transportation expenditures. These differences in the expenditure data means that the per-pupil cost is not strictly comparable across the nine providers.

Table 2.5 also shows the staff-child ratio for all nine providers. Notably, the district-based programs all operate close to capacity, with either a 10-to-1 ratio or just slightly below. In contrast, three of the center-based sites operate below capacity either intentionally (e.g., a planned enrollment of 15 CERDEP children per classroom) or because of unfilled slots. The lower ratio in these sites means that per-pupil costs will be higher compared with sites that operate with 20 children per room, with all else remaining equal. Indeed, of the three centers with the highest per-pupil expenditures, two have enrollment below 20 children per classroom.

Explaining Variation in Per Pupil Costs

The expenditures-per-pupil figures reported in Table 2.5 do not provide an apples-to-apples comparison of per-pupil cost because of differences across providers in terms of occupancy and transportation costs, as well as differences in the staff-child ratio. To allow for greater

¹⁹ Alternatively, we could have excluded just the rental portion of occupancy, but not all providers separated out the rental cost from other occupancy-related costs.

²⁰ One of the districts reported expenditures only for classroom personnel (salaries and benefits). We include this district for the comparison of classroom personnel costs.

comparability of per-pupil cost, Table 2.6 shows a sequence of adjustments across the nine providers. Line A shows the same result as Table 2.5 for total per pupil cost. Line B removes all occupancy-related cost from the per-pupil estimate, line C further removes transportation cost, while line D deducts the central administrative costs (e.g., school or district leaders; center leaders). What remains are the personnel costs for the classroom staff and classroom materials and supplies, food, and other operating costs which are more or less consistently reported across providers. On this basis (line D), the average cost per pupil for the three public school districts is about \$7,400 per pupil, versus \$4,600 per pupil at the private centers, a difference of about \$2,800.

We make two further adjustments. The first is to account for enrollment below 20 students per classroom. As noted earlier, we assume that up to 20 children could be served in each classroom without additional costs on the margin, given that all classroom and administrative staff would not change.²¹ This adjustment (line E) lowers the cost for private centers compared with public sites, which further widens that gap between the two provider types to about \$3,300. A final adjustment is to consider just the per-pupil cost of the compensation for the classroom staff, shown as line F, again with the adjustment for underenrollment. (For this expenditure component, we can now include District D in our comparison.) This narrows the gap between per-pupil cost for public versus private providers to about \$2,300 per pupil (about \$5,000 per pupil for public providers versus \$2,700 for private providers).²² This gap is entirely the result of difference in salaries and benefits between the public and private CERDEP programs.

Other factors may explain some of the variation that still remains after the adjustments shown in Table 2.6. For example, price levels (e.g., teacher salaries, cost of other goods and services) may vary across the communities where our nine sites are located, in ways that raise or lower costs relative to the state average.

Additional Sources of Revenue

The per-pupil estimates in Table 2.6 indicate the per pupil costs for both public and private providers exceed the standard CERDEP reimbursement of \$4,422 per pupil applicable in 2017–18. For private center-based providers that offer transportation services such as Centers E and H, adding the per pupil transportation reimbursement of \$562 that applied in the 2017–2018 school year still leaves a gap. This suggests that public and private providers must be supplementing CERDEP funding with other sources of revenue to cover their full costs. Although we did not collect detailed information on program revenue, we did ask providers to report which sources of revenue they had in 2017–2018. As shown in Table 2.7, providers rely on an array of public and private funding sources. Among the CERDEP funding streams, all providers had CERDEP

²¹ The adjustment involves dividing total expenditures or any subset of expenditure components by potential enrollment (i.e., 20 children times the number of classrooms) instead of using actual enrollment. This adjustment will have no effect on the estimated per pupil cost if actual enrollment is already 20 children per classroom.

²² The gap narrows because the district-based programs, after adjusting for class size, spend about \$1,000 more per pupil on average for administrative staff, food service personnel, and custodial staff.

Table 2.5. Estimated CERDEP Per Pupil Cost for 10 CERDEP Providers Interviewed, 2017 Dollars

Indicator	District A	District B	District C	District D	Center E	Center F	Center G	Center H	Center I
Cost per pupil (\$)	8,422	8,479	8,992	–	7,323	6,514	5,414	7,980	7,273
Rent or equivalent not included	✓	✓	✓	✓			✓	✓	
Central administration not included				✓					
Transportation not included/provided				✓		✓	✓		✓
Staff-child ratio	9.8	10.0	9.9	10.0	10.0	7.5	10.0	7.5	8.8

SOURCE: Authors' analysis.

NOTES: – = not able to compute because of incomplete information. Expenditure information for District D was incomplete.

Table 2.6. Estimated Adjusted CERDEP Per Pupil for 10 CERDEP Providers Interviewed, 2017 Dollars

Indicator	District A	District B	District C	District D	Center E	Center F	Center G	Center H	Center I
A. Cost per pupil (\$)	8,422	8,479	8,992	–	7,323	6,514	5,414	7,980	7,273
B. Line A without occupancy (\$)	8,149	7,954	8,563	–	4,871	4,153	5,153	7,368	5,902
C. Line B without transportation costs (\$)	7,773	7,708	8,326	–	4,871	4,112	5,144	7,307	5,901
D. Line C without administration cost (\$)	7,318	7,133	7,751	–	4,427	3,081	3,974	6,864	4,624
E. Line D with adjustment for class size of 20 (\$)	7,196	7,133	7,674	–	4,427	2,311	3,974	5,148	4,085
F. Classroom personnel with adjustment for class size of 20 (\$)	5,244	4,774	5,081	5,326	3,567	1,586	2,826	3,173	2,395

SOURCE: Authors' analysis.

NOTES: Expenditure information for District D was incomplete. – = not able to compute because of incomplete information.

Table 2.7. Sources of Revenue for 10 CERDEP Providers Interviewed, 2017–18 Academic Year

Revenue Source	School Districts (N = 5)	Private Centers (N = 5)
Sources of public funding		
CERDEP instruction	5 of 5	5 of 5
CERDEP new provider	1 of 5	3 of 5
CERDEP transport	–	2 of 5
CERDEP expansion (extended day, year, or summer)	2 of 5	3 of 5
Early Head Start / Head Start	–	1 of 5
USDA Child and Adult Care Food Program	4 of 5	3 of 5
Title I	1 of 5	–
Other district funds	4 of 5	–
SC Vouchers	–	5 of 5
Other public funds	1 of 5 (EOC grants)	0 of 5
Sources of private funding		
Parent fees	0 of 5	5 of 5
Sponsoring agency	–	1 of 5
Special events/fund raising	1 of 5	4 of 5
Private donations	3 of 5	3 of 5

SOURCE: Provider interviews.

NOTES: – = not applicable.

instruction reimbursement, but fewer had new provider reimbursements in the fiscal year of interest (although some reported receiving those funds in earlier years). CERDEP transport (for private providers only) and expansion funds were also used by a subset of the providers.

Other public funding sources apply differentially to districts and centers. Among public school districts, one applied Title I funds for a subset of their schools with CERDEP classrooms and 4 had other district support (e.g., general funds) for their CERDEP classrooms. One center had Early Head Start funding for younger children, and all centers reported serving children with SC Vouchers. Among the public sources that apply to both districts and centers, seven of the ten providers reported reimbursement through the USDA CACFP. In terms of private sources of revenue, parent fees are charged for at least some non-CERDEP families in all of the center-based programs, while a subset of centers rely on support from their sponsoring agency, fundraising events, and other private donations. Fewer district-based programs relied on private sources, either from special events or private donations. No providers reported funding through other community groups or from employers (not shown in the table).

3. Model-Based Estimates of CERDEP Costs

We now turn to our second approach for examining total per-pupil costs of CERDEP. This approach is based on a cost model we developed, informed by the providers examined in the prior chapter, to estimate the variation in total cost per pupil under alternative scenarios regarding the provider type, teacher qualifications and compensation, program scale, price structure, and the inclusion of specific cost components (namely facility rent and transportation). A cost model (also called a cost-estimation model or cost calculator in the ECE field) estimates the cost to provide child care or preschool services based on specific assumptions about the structure of the program (e.g., the total enrollment, the program hours per day and weeks per year, the ages of children served, the number of classrooms of each type and children per classroom, and the number and qualifications of staff for each classroom) and other program inputs (other labor, food service, transportation, space requirements, and all other materials and supplies listed in Table 2.2), along with the prices or cost of each of these inputs (e.g., staff salaries, the cost of rent and utilities, the cost of other goods and services) (Davis et al., 2017). Based on the assumptions about resource inputs and their cost, the model multiplies the quantity of each input by its price and sums across all inputs to obtain a total cost for the program structure.

In our case, the 4K CERDEP cost model we develop is for the traditional year program option—6.5 hours per day of instruction for 180 days per year. All other assumptions and program features are consistent with CERDEP requirements, such as the qualifications of the teaching staff, the provision of meals, and so on. These model-based estimates of the cost to deliver CERDEP in a public or private setting primarily serve to address our second and third study questions in a more structured way. First, the results produce estimates of total per-pupil costs under baseline assumptions. Second, the model illustrates the variation in per-pupil costs under alternative provider contexts, thereby pointing to the major cost drivers. Third, the model-based per-pupil cost estimates are compared with CERDEP reimbursement rates to determine if provider costs are covered by state funds. We begin by describing the baseline model assumptions (some of which is documented in Appendix C) and alternative scenarios before presenting the results.

Approach

Given the scope of our work, it was not possible to develop a model to generate estimated CERDEP cost per pupil under all possible combinations of program structure, staffing models, salary scales, and other key program features. To make our analysis tractable, we therefore consider several basic provider types that vary along key dimensions with assumed features that could be considered typical of public and private programs in the state. For each provider type,

we first estimate per-pupil total costs under baseline assumptions that are as realistic as possible in terms of the cost structure that providers face in South Carolina. We then examine how costs vary as we change key assumptions about the program context and other assumptions. Together, the variation across the baseline provider types and the sensitivity analyses correspond to major cost drivers and also capture features, discussed in Chapter 1, that are considered in state 4K reimbursement rates (e.g., variation by public versus private status, teacher qualifications, geography).

As with our Chapter 2 analysis of CERDEP costs for selected providers, our cost model is also designed to produce an estimate of the per-pupil cash expenditures for CERDEP providers. Effectively, the model captures the provider’s experience regarding program expenditures which can be compared with program revenue sources from the public sector (e.g., the per-pupil CERDEP reimbursement). Our modeling approach builds upon the Provider Cost of Quality Calculator (PCQC) (Office of Child Care, undated).²³ Our adaptation of the tool is benchmarked against the ten providers examined in Chapter 2, in terms of the assumptions regarding program structure and the resources associated with the provision of CERDEP. We also draw on information about salaries for 4K programs in public schools and private centers using teacher salary information for South Carolina and occupational wage data for South Carolina maintained by the U.S. Bureau of Labor Statistics (BLS). In addition, for public school districts, we examine total enrollment and 4K enrollment by district and site to benchmark our baseline case and sensitivity analyses.²⁴ The model produces estimates of per-pupil costs—in total and by major cost components—for CERDEP providers under varied circumstances.²⁵ The expenditures capture both direct costs associated with CERDEP classrooms and indirect resources at the district, school, or center level. Our methods discussion first addresses major assumptions for the baseline model and then reviews the alternative scenarios we consider.

Assumptions for the Baseline CERDEP Cost Model

Our CERDEP cost model produces cost estimates at the site level (public school or private center) and requires specifying the resource quantities needed to implement CERDEP based upon assumed features of the site, such as the number of CERDEP rooms, the class size, the

²³ The PCQC was developed by the U.S. Department of Health and Human Services’ Office of Child Care to support efforts on the part of federal, state, and local policymakers, as well as ECE practitioners, to understand the cost of providing high-quality ECE. The model assumptions about program structure, cost elements, and unit costs have been validated against cost data for samples of providers across the United States and the tool is widely used, including for purposes of setting provider reimbursement rates under state CCDF child care subsidy programs. As with our model, it is designed to be an estimator, rather than a precision tool.

²⁴ We do not have comparable information about total enrollment and CERDEP enrollment for the universe of private centers that deliver CERDEP.

²⁵ In many respects, our cost model is similar to the approach adopted by the EOC (2006) when CERDEP began in order to estimate per pupil reimbursement rates. Our model is more comprehensive in considering not just classroom-related costs but other direct and indirect costs required for CERDEP delivery. In addition, we consider a wider range of provider contexts (beyond public versus private settings and degree requirements) to examine the sensitivity of per pupil cost estimates to the provider circumstances.

teacher-child ratio, and so on. The relevant resources include the classroom and administrative staff positions required, the number of staff to employ in each position, the square footage of space to employ, the number of meals to be served, the classroom materials to be purchased, and so on. For each resource, a unit price is required such as the salary and benefits for each staff position, the cost of space per square foot, the cost of each meal, and so on. The prices for each resource may depend upon the provider context, such as public versus private status, being in a low- or high-cost area, and structural features such as the class size and educational qualifications of the lead classroom teacher(s). Once the resources are identified and the corresponding prices determined, the cost model multiplies each resource quantity by its price to obtain the total cost for each resource. The sum of the resource costs is the total cost for a program with the assumed features. Total cost divided by CERDEP enrollment is the measure of per-pupil cost.

Thus, the key assumptions for the baseline cost model fall into four categories: provider context, staffing model, staff compensation, and unit costs for other expenditure categories. We discuss assumptions in each of these areas in turn.

Provider Context

Our baseline model considers four illustrative provider contexts for CERDEP delivery, one that applies to public school district programs and three that pertain to private centers. These cases were selected because they allow us to vary three key program features within the baseline model: public versus private providers and, for private centers, staff compensation and lead teacher degree level. As discussed in Chapter 2, our illustrative providers demonstrate potential differences in the cost structure for public versus private providers, in part because of differences in staff compensation. The option within private centers—of employing lead teachers with an associate degree rather than a bachelor’s degree—is another potential key difference in program structure that could affect per-pupil cost. Other potential cost drivers such as price variation across geographic areas, program scale, class size (and thus the teacher-child ratio), rental cost, and transportation cost are addressed in the sensitivity analyses. Table 3.1 summarizes how we capture variation in program features and cost through the four baseline provider types (first column) and the sensitivity analyses (second column).

More specifically, as shown in Table 3.2, all four provider contexts assume the traditional CERDEP option: one operating with 6.5 hours per day for 180 days per year. CERDEP enrollment is assumed to be 40 children in two classrooms of 20 children each. The other key features are as follows (where the feature that changes in moving from type A to type B, from type B to type C, and from type C to type D is outlined with a box):

- **Type A** providers are sites operated by school districts (in a public school or stand-alone publicly funded center). As required under CERDEP, lead teachers are assumed to have a bachelor’s degree with ECE specialization. Compensation is consistent with typical salaries for public school teachers and administrators based on the median salaries for South Carolina, according to data from BLS (discussed further later in this chapter).

Overall, the site is assumed to have enrollment of 450 children across all grades (i.e., in the elementary school) and total enrollment of 150 4K children across all schools in the district.²⁶ By full enrollment, we mean that all classrooms are fully enrolled at 20 children each (i.e., no underenrollment). We also assume the program pays rent (or has a mortgage) for the CERDEP space, and provides transportation services for children enrolled in the 4K program (even though transportation is optional).

- **Type B** mirrors type A but is a private center rather than a public school. Notably, lead teacher qualifications are the same (a bachelor’s degree) with ECE specialization and compensation is at parity with compensation for similar staff roles in public schools (referred to as compensation *parity* in Table 3.2). All other programmatic features are assumed to be the same as type A, except that total enrollment in the center is 120 children, reflecting the different overall size of an elementary school site versus an ECE center. With two CERDEP rooms (40 4K slots total), this means two-thirds of the enrollment in the center is comprised of younger children (i.e., infants, toddlers, and 3K children).

Table 3.1. Sources of Per-Pupil Cost Variation Addressed in Baseline Cases and Sensitivity Analysis

Source of Variation in Per Pupil Cost	Examine in Baseline	Examine in Sensitivity Analysis
Provider type	Public versus private	–
Compensation for classroom staff (private centers only)	Public school salaries and benefits versus private center salaries and benefits	–
Highest degree of lead teacher (private centers only)	Bachelor’s degree versus associate degree	–
Price variation across geographic areas (assume state median in baseline)	–	Lower-cost versus higher-cost geographic areas
Program size (assume 2 CERDEP rooms in baseline)	–	Smaller (1 CERDEP room) and larger (4 CERDEP rooms) program size
Class size (assume enrollment of 20 per classroom in baseline)	–	Smaller class sizes (15 and 18)
Expenditures for rent (assume rent is paid in baseline)	–	No expenditures for rent
Transportation services (assume provided in baseline)	–	No transportation services provided

SOURCE: Provider interviews.

NOTES: – = not applicable.

²⁶ These enrollment assumptions are relevant for determining shares of salaries and other expenses at the school or district level. We based these assumptions on enrollment information for the 61 school districts that operated CERDEP in the 2017–2018 school year. For those districts, the median 4K enrollment was about 145 students, just under our assumption of 150 students. For the schools in those districts with CERDEP classrooms, the median 4K enrollment was 40 students (i.e., two classrooms) and a total school enrollment across all grades of about 450.

Table 3.2. Baseline Assumptions for Four Provider Types for CERDEP Cost Model

Features	Type A	Type B	Type C	Type D
Setting	School district school or center	Private center	Private center	Private center
Days	180	180	180	180
Hours per day	6.5	6.5	6.5	6.5
Lead teacher qualifications	Bachelor's with ECE	Bachelor's with ECE	Bachelor's with ECE	Associate degree
Compensation	Public school salaries and benefits	Pay parity with Type A	Center salaries and benefits	Center salaries and benefits
Salaries	50th percentile	50th percentile	50th percentile	50th percentile
Fringe benefit rate	45 percent	45 percent	12 percent	12 percent
Total district enrollment	150	–	–	–
Total school/center enrollment	450	120	120	120
Total CERDEP/4K rooms	2	2	2	2
Group size	20	20	20	20
Enrollment	Full	Full	Full	Full
Facility rent	Included	Included	Included	Included
Transportation	Included	Included	Included	Included

SOURCE: Authors' assumptions.

NOTES: The feature that changes in moving from Type A to Type B, from Type B to Type C, and from Type C to Type D is outlined with a box. – = not applicable.

- **Type C** private providers are the same as type B with the exception that compensation for staff is based on the salaries typical in South Carolina private child care settings, again based on median salaries using BLS data (see the discussion that follows).
- **Type D** private providers are the same as type C with the exception that the lead teacher has an associate (two-year) degree, the minimum education qualification for private centers under CERDEP.

The assumptions for the four provider types allow ready comparison of total per-pupil costs across provider type, compensation structure, and teacher qualifications. In particular, a comparison of type A versus type B shows the difference in costs for a district program versus a private program where degree requirements and compensation levels are held constant. Comparing type A with type C shows the difference in per-pupil cost in changing both provider type (public district program versus private center) and the associated compensation structure (public school district salaries versus salaries in private centers). As another example, a comparison of type C versus type D shows the effect on per-pupil cost for private centers of having a lower teacher qualification as allowed under CERDEP relative to the qualification required in school district programs.

Staffing Model

The model makes assumptions about the number of staff at the classroom level and staff at the site level (and district level in the case of type A public providers) (see Appendix C and Table C.1 for additional detail). Staff are measured as full-time equivalent (FTE) positions. For the classrooms, all provider types in the public and private sectors are assumed to operate with one lead teacher, one assistant teacher, and a 0.25 FTE floater (who substitutes in when needed so that there are two staff per room at all times).

In the case of the type A school district site, we assume a district-level ECE coordinator and a school principal, each of whom serves the larger 4K district or overall school population of students. At the baseline scale, we assume a 0.5 FTE district ECE coordinator and a 1 FTE principal. We also assume a school-level 0.33 ECE director, a 0.33 FTE office manager, and a 0.33 FTE administrative assistant for the 4K program. The type A district-based site is assigned a portion of the compensation for the district ECE coordinator where the share is based on CERDEP enrollment at the district site as a share of the overall 4K enrollment in the district. A similar logic is employed for the school principal except that we use the share of CERDEP enrollment relative to total site enrollment to assign a share of the salary for the principal. The full cost of the CERDEP ECE director, office manager, and administrative assistant are assigned to CERDEP.

In the case of the type B, C, and D private centers, each is assumed to have an ECE director, associate director, office manager, and administrative assistant. As site-level costs, a share of their salary is attributed as CERDEP costs based on the enrollment of children in CERDEP rooms as a share of total enrollment. Given the assumptions for type B, C, and D private centers with 40 children in CERDEP rooms and 120 children overall, 33 percent of the salary for the site-level administrative staff are assigned as CERDEP costs.

Staff Compensation

The cost model has assumptions about compensation (salaries and nonwage compensation) for each of the staff positions (see Table C.2 in Appendix C for details). Our salary assumptions are drawn from BLS data on occupational wages for South Carolina as of May 2017 (BLS, undated). We use the median estimates where available for the closest occupation code to each staff position. For example, because there is no public preschool teacher category, we use the category for kindergarten teachers (except special education teachers) as the best fit for the lead teacher salary in a public school district-based 4K program.²⁷ In contrast, for the lead teacher in a private center, we used the BLS occupational category for preschool teachers, which had a South Carolina median of about \$23,000, reflecting the lower salaries in private programs. Assistant teachers at the median are assumed to earn \$21,000 in public school and \$19,000 in

²⁷ The South Carolina teacher salary scale differentiates between degree level and years of experience but not the grade assignment (South Carolina Department of Education, undated). The median South Carolina public school kindergarten teacher salary of about \$51,000 according to the BLS is consistent with the average teacher salary at the state level for the 2017–18 school year.

private centers. The median salaries for the administrative staff positions are documented in Appendix C.

In addition to the salary costs for staff, we assume a fringe benefit rate to account for payroll taxes and other nonwage benefits for all staff (e.g., health, dental, and vision benefits; retirement contributions; and so on). Consistent with our findings for the public school sites in Chapter 2, we assume a 45 percent fringe rate for type A and type B providers (where parity is assumed for private providers). For type C and D providers, given the minimal fringe benefits offered by private centers and based on our illustrative cases and what is documented elsewhere (Thomason et al., 2018), we assume a fringe of 12 percent. This will cover payroll taxes and a very minimal benefits package (e.g., some paid sick or personal leave).

Other Unit Prices

The model also requires assumptions about the cost per unit of other cost components beyond classroom and administrative staff (see Table C.3 in Appendix C). At the highest level, this includes major cost categories of professional development, classroom resources, meals, transportation, occupancy, and other operating costs. In most of these categories, there are cost subcomponents. The baseline unit cost estimates are based on the PCQC estimates for South Carolina (Office of Child Care, undated) with adjustments based on the information provided by the illustrative providers. Because the number of children, rooms, and sites are the same across provider types A to D, the baseline costs per pupil are the same regardless of provider context and the alternative scenarios, with the exception of professional development (see Appendix C for details).

Note that we are assuming that the unit prices are effectively the same for public and private providers. Because of the ability of school districts to purchase in bulk, it may be the case that the unit costs for larger school districts would be lower compared with private providers, but South Carolina also has many smaller districts that may not have the same purchasing advantage. We do not have sufficient information, however, to estimate such differences. The possibility of these differences should be kept in mind. As discussed in the later in this chapter, we also consider lower and higher unit costs as part of our sensitivity analyses to account for geographic differences in price levels, but the same analyses could be used to consider any cost advantage associated with scale.

Alternative Scenarios Examined

In addition to the baseline model, we examine the sensitivity of our estimates of per-pupil cost to variation in several key parameters (see Table 3.1). In particular, we consider sensitivity to changes in six key areas:

- **Salaries and unit costs:** The baseline model assumes salaries are at the South Carolina state median. We examine how much lower per-pupil costs would be if salaries were instead at the 25th percentile of state salaries (again based on BLS data) and how much higher per-pupil costs would be if instead salaries were at the 75th percentile (see Table

C.2 for the salary assumptions). The lower-salary case can be equated to what salaries would look like in a more rural community, where wages tend to be lower. The higher-salary case, in contrast, would be consistent with a higher-cost urban setting. Assuming that prices more generally follow wages and salaries, in the low-salary context we adjust all other unit prices downward by 7.5 percent and we make an symmetric upward adjustment of 7.5 percent in the high-salary context (see columns two and three in Table C.3). Note that we have not considered the extremes of the potential salary range in South Carolina, which means that some providers could face even lower or even higher cost structures, depending on their geographic locale.²⁸

- **Program size:** The baseline model assumes two CERDEP rooms in each district site or private center. To investigate the implications of economies of scale, we consider two alternative size profiles for both public and private provider types A to D: one CERDEP room and four CERDEP rooms.²⁹ Per-pupil classroom-based costs will not change (because we still assume 20 children per classroom), but per-pupil site-based costs, such as those attributable to program administrative staff, will change to some extent, especially for the Type B, C, and D private center-based cases where we assume no change in the administrative staffing. For the Type A district-based program, the FTE administrative staff are allowed to adjust with enrollment, assuming it is easier to assign part-time 4K responsibilities to a staff person when there are multiple administrative staff. For example, in a small district or school, an assistant superintendent or assistant principal, respectively, may have responsibility for the 4K to grade 3 program, whereas a larger district or school may have one person dedicated to the district- or school-level 4K program. Thus, we expect per-pupil cost in district-based programs to be less sensitive to scale effects compared with the private centers.
- **Class size:** The baseline assumption is a classroom size of 20 children, consistent with CERDEP requirements. We consider two alternative scenarios for the class size: 18 children and 15 children. The case of 18 enrolled children could result from an explicit decision to operate with a smaller class size than what CERDEP requires, or it could arise if there were a 10 percent vacancy rate in the program site (i.e., two of the 20 CERDEP slots in each classroom are not filled). The same reasoning would justify the class size of 15, a size explicitly used by one public and one private provider in our illustrative cases

²⁸ In the BLS data on occupational wages and salaries, the median salary for each occupation used for the baseline model was the salary in the middle of the salary distribution in the state, i.e., the salary where half of salaries would be below and half above the cutoff point. The 25th percentile is the salary level where 25 percent of salaries in the state for a given occupation fall below that threshold, and 75 percent would be above it. The 75th percentile is correspondingly the salary level where 75 percent of salaries fall below that threshold and 25 percent would be above it. The BLS data also provide the state 10th percentile and 90th percentile for each occupation, extremes we do not consider in the model.

²⁹ The same public school enrollment data referenced earlier show district 4K enrollment of 80 students at the 25th percentile and 300 at the 75th percentile. At these points, school-level enrollment is just under 350 and just over 600, the two levels we assume in this model.

(see Table 2.3). That class size could also result with a 25 percent vacancy rate when the desired class size is 20.

- **Facilities rent:** In the baseline model, we include the rental cost of the space used for the CERDEP classrooms as part of the occupancy cost category. As noted in Chapter 2, public school providers generally do not incur rental costs associated with the space for their CERDEP classrooms. In addition, several of our illustrative private centers received fully subsidized rent. Thus, we consider an alternative scenario where rent is set to zero. Costs for utilities, repair, and maintenance are still included.
- **Transportation:** The baseline model assumes that transportation is provided for CERDEP children, although it is not required. Thus, we consider an alternative scenario for each of our four provider types (A to D) where transportation services are not offered.

Model-Based Estimates of CERDEP Costs

We now turn to the model-based estimates of CERDEP costs per pupil, focusing first on the cost estimates for the baseline model and then considering how those estimates vary under the various sensitivity analyses. These estimates address our second study question.

Estimated Per-Pupil Costs for the Baseline Model

Table 3.3 presents the results for total per pupil costs under the baseline assumptions for the four provider types, A to D.³⁰ Panel (a) shows cost per pupil in total and disaggregated by the major cost categories. Overall, on a per-pupil basis, provider types A and B are estimated to cost nearly \$11,000 per pupil, in contrast with about \$7,000 per pupil for types C and D. Notably, because of the assumptions and structure of our cost model, all per-pupil cost components other than personnel are the same or almost the same across the four provider types. In addition, the staffing model is effectively the same, as well. Thus, the difference in cost per pupil of about \$4,000 in moving from types A and B to types C and D is entirely attributable to the difference in compensation costs: salaries and benefits. Indeed, personnel costs are about two times higher for types A and B, where salaries are pegged to those for public school staff, along with a 45 percent fringe benefit rate. The type C and D private centers—with salaries pegged to those for staff in private centers, combined with a 12 percent fringe rate—are essentially constrained in their ability to compensate their staff at the public school levels, because many of the families they serve cannot afford to pay for a program with type A and B compensation levels (NASSEM, 2018).

³⁰ The results in Table 3.3 are not comparable to those for specific providers in Table 2.5 because the cost components are not same in all cases. For example, the baseline per-pupil cost includes rental costs for all four provider types, whereas none of the public schools had expenditures in this category. Later when we examine sensitivity to the exclusion of rental cost, the results for Type A and the district providers in Table 2.5 are more similar.

Table 3.3. Model-Based Estimated CERDEP Per-Pupil Cost and Per-Pupil Cost Components, Baseline Model by Provider Type, 2017 Dollars

Cost Component	Type A	Type B	Type C	Type D
	Public Site	Private Center, Pay Parity with Public Site	Private Center, Center Salaries	Private Center, Center Salaries and Associate Degree
a. Cost per Pupil				
Personnel	7,957	7,928	4,092	3,963
Classroom	5,625	5,625	2,623	2,494
Administrative	2,333	2,303	1,469	1,469
Consultants/training	24	33	33	33
Classroom materials and supplies	150	150	150	150
Meals	1,050	1,050	1,050	1,050
Transportation	250	250	250	250
Occupancy	1,282	1,282	1,282	1,282
Other operating costs	220	241	241	241
Total	10,933	10,932	7,097	6,968
b. Percentage Distribution				
Personnel	72.8	72.5	57.7	56.9
Classroom	51.4	51.4	37.0	35.8
Administrative	21.3	21.1	20.7	21.1
Consultants/Training	0.2	0.3	0.5	0.5
Classroom materials and supplies	1.4	1.4	2.1	2.2
Meals	9.6	9.6	14.8	15.1
Transportation	2.3	2.3	3.5	3.6
Occupancy	11.7	11.7	18.1	18.4
Other operating costs	2.0	2.2	3.4	3.5
Total	100.0	100.0	100.0	100.0
c. Other Unit Cost Estimates				
Cost per pupil-day	60.74	60.74	39.43	38.71
Cost per pupil-hour	9.34	9.34	6.07	5.96

SOURCE: Authors' analysis.

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

Panel (b) of Table 3.3 confirms the expectation that the major cost component is for personnel. Given the higher compensation costs for provider types A and B (public and private with compensation parity), personnel costs reach about 73 percent of per pupil costs, compared with about 57 percent of costs for private provider types C and D (based on center compensation). Of the personnel costs, the larger share is for classroom personnel: lead teacher, assistant teacher, and floater. Of the other cost categories, the shares are always higher for provider types C and D because of the lower share in personnel costs. But regardless of provider type, occupancy has the next largest share after personnel (12 to 18 percent), followed by meals (10 to 15 percent). The other cost components have shares below 5 percent under any scenario.

Panel (c) computes cost per pupil-day and cost per pupil-hour as alternative unit cost measures. Because we are modeling costs for the traditional CERDEP option (6.5 hours per day, 180 days per year), the daily and hourly cost estimates indicate the average cost for an extended

day (additional hours per day) or an extended year (additional days per year).³¹ For Types A and B, the average daily cost are about \$60 per day, compared with about \$40 per day for Types C and D. Hourly cost are just over \$9 for Types A and B and about \$6 for Types C and D.

Variation in Per-Pupil Costs Under Alternative Scenarios

The baseline estimates demonstrate considerable variation in per-pupil costs for CERDEP depending on staff compensation. We now consider additional results for the six types of sensitivity analyses described earlier in the chapter. Panel (a) of Table 3.4 shows per-pupil costs under each alternative scenario for our four provider types A to D, where the first row in the table shows the baseline estimate from Table 3.3, which serves as our reference point. Panels (b) and (c) respectively record the absolute change and the percentage difference in per-pupil cost for each alternative scenario for the four provider types, each relative to its baseline. As described earlier, we examined sensitivity to assumptions in six areas:

- **Salaries and unit costs:** Assuming lower and higher salary and unit cost structures have a substantial effect on per-pupil costs, relative to the baseline, lower cost communities are estimated to have per pupil costs 11 to 14 percent lower compared with the baseline. The corresponding increase in per-pupil costs for higher-cost areas is about 18 percent. Together these estimates indicate a difference in per-pupil costs between lower- and higher-cost communities of \$2,000 to \$3,500, depending on the provider context. As noted earlier, our cost differentials do not reflect the possible extremes of the local price context, meaning that the gap in per pupil cost could be even higher if we contrasted the lowest-cost communities in the state versus the highest-cost communities.
- **Program size:** Varying program size from one CERDEP room to four CERDEP rooms has a modest effect on per-pupil costs, with higher costs of 3 to 7 percent in the smaller-scale scenario (one room) and a 3 percent reduction in per-pupil cost in the larger-scale scenario (four rooms instead of two). The gap in per-pupil cost is about \$300 to \$1,000 between the smaller- and larger-sized programs we consider. Note that the effect of changing the program scale is much smaller for the type A public program, because of our assumption that administrative staffing levels at the district or school level can be more easily adjusted compared with private center-based programs.
- **Class size:** Changing the class size has a more meaningful effect on cost per pupil. Dropping to 18 students per CERDEP room raises per-pupil costs by 7 to 10 percent relative to the baseline of 20 children in the group. A class size of 15 raises cost per pupil even more, by 20 to 27 percent, relative to the baseline. With 15 students per CERDEP

³¹ We report average cost per pupil day or per pupil hour, consistent with the approach used by South Carolina to calculate the reimbursement rate for a longer day or extended year (see Table 1.3). These are average cost estimates. If some resources are fixed and do not vary with the length of the day or program year, marginal cost may be lower than average cost although many cost components are variable such as the time of classroom staff and some occupancy costs.

Table 3.4. CERDEP Per-Pupil Cost by Provider Type Under Alternative Scenarios, 2017 Dollars

Scenario	Type A	Type B	Type C	Type D
	Public Site	Private Center, Pay Parity with Public Site	Private Center, Center Salaries	Private Center, Center Salaries and Associate Degree
a. Cost per Pupil				
Baseline	10,933	10,932	7,097	6,968
Salaries and unit cost				
25th percentile salaries, 7.5% lower unit cost	9,376	9,359	6,316	6,211
75th percentile salaries, 7.5% higher unit cost	12,845	12,819	8,380	8,207
Program size				
1 CERDEP room	11,228	11,601	7,599	7,469
4 CERDEP rooms	10,898	10,611	6,895	6,766
Class size				
18	11,996	11,791	7,623	7,479
15	13,931	13,361	8,525	8,353
Without rent ^a	10,059	10,059	6,224	6,095
Without transportation	10,683	10,682	6,847	6,718
b. Absolute Change from Baseline				
Salaries and unit cost				
25th percentile salaries, 7.5% lower unit cost	-1,557	-1,574	-781	-757
75th percentile salaries, 7.5% higher unit cost	1,912	1,887	1,282	1,239
Program size				
1 CERDEP room	295	668	501	501
4 CERDEP rooms	-35	-322	-203	-203
Class size				
18	1,063	859	525	511
15	2,998	2,428	1,428	1,385
Without rent ^a	-874	-874	-874	-874
Without transportation	-250	-250	-250	-250
c. Percentage Change from Baseline				
Salaries and unit cost				
25th percentile salaries, 7.5% lower unit cost	-14.2	-14.4	-11.0	-10.9
75th percentile salaries, 7.5% higher unit cost	17.5	17.3	18.1	17.8
Program size				
1 CERDEP room	2.7	6.1	7.1	7.2
4 CERDEP rooms	-0.3	-2.9	-2.9	-2.9
Class size				
18	9.7	7.9	7.4	7.3
15	27.4	22.2	20.1	19.9
Without rent ^a	-8.0	-8.0	-12.3	-12.5
Without transportation	-2.3	-2.3	-3.5	-3.6

SOURCE: Authors' analysis.

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

^a Rent is a component of occupancy costs. Still included in occupancy costs are utilities, along with repair and maintenance.

room, the per-pupil cost is higher by \$1,400 to \$3,000 compared to the baseline class size of 20, indicating the substantial effect on per-pupil cost of operating with a lower class size than the maximum allowable class size under CERDEP.

- **Facilities rent:** With nearly \$900 in per-pupil cost for rent based on our baseline model assumptions, removing this cost element from the larger category of occupancy costs reduces overall per-pupil cost by 8 to 13 percent. Although this is a modest difference, this scenario is quite common for public providers and for many private providers. Thus, the difference in cost per pupil could be nearly \$900 between a CERDEP provider that faces a rental or mortgage cost for their facility versus those that do not.
- **Transportation:** The model unit costs assume a transportation cost per pupil of \$250. Thus, eliminating this cost element lowers per-pupil cost by about 2 to 4 percent, a considerably more modest cost factor given our assumptions.

In sum, these results indicate that the cost per CERDEP pupil could be very different depending on the provider context. Key cost drivers include (1) the compensation level for classroom and administrative personnel, where those cost differentials may arise across geographic locales or because of the contrast in compensation between public versus private programs; (2) the class size (and hence the staff-child ratio); and (3) whether the provider has rental cost. There are also potential cost differentials, albeit more modest given our assumptions, associated with economies of scale and transportation.

This sensitivity analysis also demonstrates that the cost model, under the appropriate assumptions, closely replicates our estimates of per-pupil cost for the eight illustrative providers for which we had complete expenditure data (see Table 2.5). For example, the per pupil-costs for districts A, B, and C were between \$8,400 and \$9,000. These districts were in more rural communities, and each district’s CERDEP sites operated at a scale and class size similar to our baseline assumptions. None paid rental cost. Thus, the best comparison would be using the lower-cost community assumptions for a type A program—per-pupil cost of about \$9,400 in panel (a) of Table 3.4—less the per pupil cost of rent in the model of nearly \$900. This gives a range of about \$8,500 to \$11,100 which includes the estimates for the three district-based providers.

The circumstances of the private centers were all quite different in terms of their cost structure and would be most comparable to a type C or type D center. On the low end, center G in a more rural community, with no rental or transportation cost, had a per-pupil cost of about \$5,400, consistent with the lower-cost community per-pupil estimate for a type D center of about \$6,200, less \$1,100 for rent and transportation, but with the expectation of higher cost relative to the baseline from operating with a child-staff ratio of about 9-to-1 rather than 10-to-1. On the high end, center H had a per-pupil cost of about \$8,000. All lead teachers had a bachelor’s degree (without ECE specialization), the site had no rental cost, and it operated with a class size of 15, making it most comparable to a type C center with the lowest class size we modeled,

where per-pupil costs were estimated to be about \$8,500 (or about \$7,600 with the exclusion of the rental cost).

Comparison of Per-Pupil CERDEP Costs with Per-Pupil Reimbursement

The estimated per-pupil total cost based on the cost model can be compared with the current state reimbursement levels for CERDEP, our third study question of interest. Given that our model is based on unit cost data for 2017, we make the comparison with reimbursement rates as of the 2017–2018 school year. With an instructional reimbursement rate of \$4,422 per pupil for the traditional CERDEP option (as assumed in our model analysis), it is quickly evident that all of the estimated total costs per pupil across the scenarios we examined in Table 3.4 exceed, and often well exceed, this per-pupil reimbursement rate. Likewise, the hourly and daily reimbursement rates for extended-day or extended-year programs (see Table 1.3) fall short of the model-based estimated hourly and daily rates (see Table 3.3 where this is illustrated for the baseline). However, a more careful assessment is needed of the potential gap between the available sources of reimbursement versus estimated cost.

First, it is important to consider which revenue sources may apply. For private CERDEP providers that transport students to and from the program, additional reimbursement of \$552 per pupil was available in 2017–2018. In addition, because the income cutoff for CERDEP eligibility is the same as eligibility for the CACFP, providers can receive reimbursement for meal costs. Assuming the maximum possible reimbursement when children are eligible for free meals, a provider may claim as much as \$1.75 per breakfast and \$3.23 per lunch, for a total reimbursement over a 180-day school year of \$896 per pupil. Panel (a) of Table 3.5 records these possible revenue sources for the four provider types A to D. With these additional revenue sources, providers may receive up to a total of nearly \$5,900 per pupil.

Second, given the potential variation in cost structures, we also need to consider the difference in provider cost versus reimbursement based on the provider context. Panel (b) in Table 3.5 displays the gap between total per-pupil cost and the maximum possible reimbursement, with our baseline assumptions about salaries and unit prices for the four provider types, A to D. The table also reports the gap (when positive, indicating a revenue shortfall) as a percentage of total expenditures. Under the baseline model (case 1), provider types A and B have a gap that is close to half of total cost. The gap is smaller, but still positive, for provider types C and D, equal to about 17 percent of expenditures.

Case 2 in Table 3.5 shows the size of the gap when the cost of rent is eliminated (for providers without rental costs) and case 3 applies when both rent and transportation costs are not incurred. Note that when transportation services are not provided, the size of the gap increases because reimbursement for transportation is \$562 per pupil compared with our estimated cost of \$250 per pupil, producing an estimated net surplus when transportation is provided and reimbursed. Provider types C and D, with no rental costs (case 2) or with no rental or transportation costs (case 3), come closest to breaking even, with a shortfall of around \$250 to \$600 per pupil, about 4 to 11 percent of their estimated total cost.

Table 3.5. CERDEP Per-Pupil Cost Versus Per-Pupil Reimbursement by Provider Type Under Alternative Scenarios, 2017 Dollars

Scenario	Type A	Type B	Type C	Type D
	Public Site	Private Center, Pay Parity with Public Site	Private Center, Center Salaries	Private Center, Center Salaries and Associate Degree
a. Possible Reimbursements				
CERDEP instruction (\$)	4,422	4,422	4,422	4,422
CERDEP transportation (\$)	0	562	562	562
USDA food (\$)	896	896	896	896
Total reimbursement (\$)	5,318	5,880	5,880	5,880
Total reimbursement, no transportation (\$)	5,318	5,318	5,318	5,318
b. Per-Pupil Gap Estimates, All Applicable Revenue Sources and Baseline Cost Estimates				
1. Total cost (\$)	10,933	10,932	7,097	6,968
Gap = Cost – reimbursements (\$)	5,615	5,052	1,217	1,088
Gap as a percentage of cost (%)	51.4	46.2	17.2	15.6
2. Total cost without rent (\$)	10,059	10,059	6,224	6,095
Gap = Cost – reimbursements (\$)	4,741	4,179	344	214
Gap as a percentage of cost (%)	47.1	41.5	5.5	3.5
3. Total cost without rent and transport (\$)	9,809	9,809	5,974	5,845
Gap = Cost – reimbursements (\$)	4,491	4,490	655	526
Gap as a percentage of cost (%)	45.8	45.8	11.0	9.0
4. Instructional cost (\$)	8,381	8,389	5,388	5,259
Gap = Cost – reimbursements (\$)	3,062	2,509	–492	–621
Gap as a percentage of cost (%)	36.5	29.9	–	–
5. Instructional cost without rent (\$)	7,507	7,515	4,514	4,385
Gap = Cost – reimbursements (\$)	2,188	1,635	–1,366	–1,495
Gap as a percentage of cost (%)	29.2	21.8	–	–
6. Instructional cost without rent and transport (\$)	7,257	7,265	4,264	4,135
Gap = Cost – reimbursements (\$)	1,938	1,947	–1,055	–1,184
Gap as a percentage of cost (%)	26.7	26.8	–	–

SOURCE: Authors' analysis.

NOTES: Percentages may not sum to 100 because of rounding. – = not applicable.

The last three cases in Table 3.5 are based on considering what we refer to as *instructional costs*: classroom staff compensation, professional development, classroom materials and supplies, meals, transportation, and occupancy. Our definition is somewhat more expansive than that which was used by EOC (2006) when the CERDEP instructional reimbursement rate was first set.³² Focusing on our broader measure of instructional costs, there is still a sizeable, but

³² Our broader definition is based on identifying those costs that providers must incur, on the margin, as they add a CERDEP classroom to their program. For example, expenditures for the compensation of the CERDEP classroom staff and other classroom materials and supplies are clearly direct costs of the program. But the staff also require professional development, which adds to CERDEP costs on the margin. The same is also true for the meals served to CERDEP enrollees. Adding a CERDEP room incurs additional occupancy costs, as well, at least for providers that pay rent or have a mortgage. Although transportation services are not required, we include them because we include the transportation reimbursement as part of potential revenue. What is omitted from instructional costs are

smaller, revenue gap for type A and B providers paying public school salaries equal to as little as 27 percent of costs when the provider does not pay for rent or offer transportation (case 6). However, instructional expenses are covered by the available revenue sources for provider types C and D under all three cases (cases 4 to 6) because of the lower compensation costs we assumed for those two types of private providers. Indeed, focusing on just instructional costs, type C and D providers would have surplus revenue to offset at least some of the other noninstructional costs, such as general operations expenditures.

In sum, given our baseline assumptions, unless providers are paying the lower wages and benefits that characterize compensation in private centers, the available sources of reimbursement from CERDEP and subsidized school meals are not expected to cover the total cost of a high-quality CERDEP classroom, based on median salaries and average state unit costs—whether public or private. If we focus on the set of costs directly attributable to a CERDEP room, which we call instructional costs, there is still a gap between reimbursement and costs for public and private providers paying public school compensation rates. However, private centers with compensation comparable to other child care providers would see their instructional costs covered. We also note that although we have focused on cost per pupil, our findings would be replicated with respect to our estimates of CERDEP cost per pupil-day and cost per pupil-hour. Further, the gap analysis would show even higher gaps between CERDEP revenue and costs for providers in higher-cost parts of the state. Providers in lower-cost areas would see smaller gaps.

compensation for the provider administrative staff and other operational costs, most of which are fixed costs for the program as a whole and would typically be considered part of program overhead.

4. Key Findings, Policy Considerations, and Recommendations

CERDEP is South Carolina’s primary program for promoting school readiness among low-income children by providing a full-day 4K free of charge to families. For the public school districts and private center-based providers that deliver CERDEP, a central question is whether the state reimbursement is sufficient to cover the cost of a high-quality program. If reimbursement is not adequate, it may affect the ability of providers to deliver high-quality services and to sustain their programs, especially for private providers who may not have access to other sources of public or private funds to fill the gap.

The goal of this study has been to develop a more complete understanding of the total cost to deliver CERDEP under varied circumstances such as the provider type, local cost structure, teacher qualifications, and other aspects of program structure. Based on information on CERDEP costs gathered from ten illustrative providers throughout the state, we aimed to understand the cost components that providers face, both to support instruction and operate programs. Armed with this information, we have developed model-based estimates of the total per-pupil cost of CERDEP under alternative contexts such as public versus private providers, low- and high-cost locales, and structural features such as the size of a classroom group and the educational credentials of the lead teacher. These estimates have in turn supported an analysis of the ability of CERDEP reimbursements alone, or in combination with other public funds, to cover the costs CERDEP providers are estimated to incur.

In this closing chapter, we summarize our findings with respect to the questions that motivated this study. We then discuss the implications of our findings and enumerate several recommendations that flow from our analysis.

Key Findings

At the outset, we asked a series of questions related to the cost of delivering CERDEP:

- What are the “ingredients,” in terms of personnel, facilities, educational materials, and other supplies, required to deliver CERDEP in public and private settings? What are the sources of potential variation in program costs?
- What is the estimated per-pupil cost of CERDEP? Does the per-pupil cost vary by key programmatic features, such as public versus private settings, teacher qualifications, student enrollment, or geographic area?
- How does the per-pupil cost compare to the current per-pupil reimbursement rate for CERDEP providers?

We review our findings for each of these questions in turn.

Cost Ingredients and Sources of Cost Variation

Based on information on CERDEP costs provided by five school districts and five private providers, we confirmed that the delivery of CERDEP requires expenditures in multiple categories that we group as: personnel-related, namely salaries and benefits for classroom staff and administrative staff, as well as professional development; program-related, such as classroom supplies and other instructional supports, food service, daily transportation and transportation for special events (e.g., field trips); occupancy-related including rent (or mortgage and taxes), utilities, and repairs and maintenance; and a host of administrative costs associated with program operations, from office supplies to licensing and staff clearance fees. These cost elements are similar to those identified in other cost studies of 4K programs and are typically included in ECE program cost models (with the possible exception of transportation costs).

At the same time, despite operating programs under a common set of requirements, there are important differences across CERDEP providers that have implications for per pupil cost. The most meaningful of these differences are:

- **Compensation:** The data from providers confirmed what has been well documented elsewhere: striking differences in salary levels and benefits packages between public school district–based programs and private centers. For our illustrative providers, lead teachers in public schools, for instance, had salaries that ranged from \$35,000 to \$52,000, compared with \$25,000 to \$43,000 for the lead teachers in private centers. These differentials are not because of differences in the qualifications of the lead teachers: many private centers employed lead teachers in their CERDEP rooms with bachelor’s degrees and ECE specialization, even though that exceeded the program requirement. Moreover, the benefits package for public school teachers included subsidized health, dental, and vision insurance; a retirement plan; and time for paid leave, among other benefits. In total, benefits for public school teachers equated to about 45 percent of their salaries, compared with a fringe-benefit rate of about 12 percent for private centers, which mostly consisted of payroll taxes.
- **Transportation:** While all district-based CERDEP sites provide transportation services by augmenting their existing transportation system to accommodate the 4K students, just two of the private centers provide transportation (using a small number of minibuses). For one center, the bus drivers assist in the classrooms once the children arrive at the center, and they reprise their driving role in the afternoon.
- **Occupancy:** We defined occupancy costs to include rent (or mortgage and property taxes), along with utilities, repair, and maintenance. None of the public school CERDEP sites reported costs for rent or a mortgage because their buildings are fully owned. In addition, two of the five centers, those located in church buildings, reported receiving the use of their center space without charge.

Other differences in CERDEP operations that have implications for cost include the size of the group of children in the CERDEP room and the overall program size. As part of the cost

model we develop, we consider the sensitivity of per-pupil CERDEP costs to variation in these key program features: compensation, transportation, occupancy, class size, and program size.

Per-Pupil Costs and Variation by Provider Context

Given the small number of CERDEP providers for whom we gathered cost information, we focus on the per-pupil cost estimates derived from our cost model. It is important to keep in mind that the model results are for illustrative programs. Although designed to be as realistic as possible, the model produces estimated per-pupil costs that are conditional on the assumptions about program scenarios, structure, and other parameters.

We do not have all possible program circumstances included in the cases we examine. Nevertheless, we believe there are robust findings from the cost model that speak to the nature of the cost structure of CERDEP 4K programs.

In our baseline model, the estimated all-inclusive per-pupil cost for the traditional CERDEP option (academic school year at 6.5 hours per day), when delivered at a site operated by a public school district, was about \$11,000. For a private center operating with the same salary and benefit structure as the public schools (i.e., compensation parity), the equivalent cost was almost identical. Thus, there is no inherent difference in the cost in public versus private settings, when compensation levels are assumed to be the same and the program pays rent (or a mortgage) for its space. Rather, a more salient contrast was per-pupil costs for CERDEP delivered in private centers that pay salaries consistent with private child care centers, either for a lead teacher with a bachelor's degree or an associate degree as allowed under the CERDEP requirements. Those estimates showed per-pupil cost of about \$7,000. The cost differential of \$4,000 per pupil is entirely attributable to the higher salaries and benefits in the public school programs or private centers with public school pay parity. The other significant cost drivers were associated with local salary and price differentials, class sizes below the allowed level of 20 children per classroom, and whether space rental (or mortgage) costs were included.

CERDEP Cost Versus Reimbursement

With an instructional reimbursement rate of \$4,422 per pupil for the traditional CERDEP option (the program variant we model), it is quickly evident that the reimbursement rate per pupil across the scenarios we examined falls short by as much as 50 percent of the estimated CERDEP per-pupil cost. Likewise, the hourly and daily reimbursement rates for extended-day or extended-year programs fall short of the model-based estimated hourly and daily costs. Likewise, the hourly and daily reimbursement rates for extended-day or extended-year programs fall short of the model-based estimated hourly and daily rates. This gap between total cost and reimbursement also holds when we consider the additional per-pupil reimbursement for CERDEP providers that provide transportation and the potential reimbursement for meals under the CACFP. Together these sources bring the total potential reimbursement to \$5,900 per pupil, but that still falls short of total per-pupil costs, given our cost model assumptions. Even when we consider a narrower portion of provider costs, namely the cost components most directly attributable to a CERDEP

classroom, the per-pupil reimbursement rate is not sufficient to cover these direct instructional costs, except in private centers paying the lower salaries consistent with private child care.

The gap analysis also demonstrates that, given a CERDEP per-pupil reimbursement rate that is the same regardless of provider context, the size of the differential between per-pupil cost and reimbursement will vary substantially across CERDEP providers, based on their compensation schedule, geographic locale, class size, and other features that drive per-pupil costs. This introduces differentials across providers in terms of the extent to which their CERDEP costs are covered by state funds, and thus the amount of funds per pupil needed from other public or private sources to fill the gap.

Policy Considerations

The findings from our analysis raise a number of policy considerations regarding the reimbursement of CERDEP public and private providers for the services they provide. We highlight five issues in particular.

Using a Single Reimbursement Rate Versus One that Varies by Provider Context

Our analysis demonstrates that CERDEP providers, when meeting CERDEP requirements, will deliver the program with different total cost per pupil and those differences can be substantial, equating to several thousands of dollars in total per-pupil costs, according to our cost model. Differences in cost per pupil arise because of variation in compensation levels and unit prices for other resources across geographic locales, a factor that is largely beyond the control of the provider. Cost differences also arise because of the different choices providers make, such as whether to implement CERDEP with a smaller class size than what is required, thereby raising cost per pupil. But providers may also have a smaller class size because of difficulties maintaining full enrollment if children churn in and out of programs. Private providers also have the option to employ lead teachers with an associate degree rather than a bachelor's degree, thereby lowering per-pupil costs. Whether to offer transportation is also a choice factor, rather than a program requirement.

These differences in provider cost per pupil, whether under the control of the provider or not, raise the issue of whether the reimbursement mechanism should account for cost variation through varying reimbursement rates. Currently, by using a single statewide reimbursement rate for CERDEP, the cost differences are not being recognized. With a single rate, the extent to which a provider's costs are covered by the reimbursement will vary. Providers in lower-cost areas would cover a greater portion of their costs relative to providers in higher cost areas, all other factors remaining the same. Providers with a class size below 20 would have a smaller portion of their costs covered relative to providers with 20 children in each CERDEP room, all else remaining equal.

As discussed in Chapter 1 (see Table 1.5), some states have elected to vary their 4K reimbursement rate with key dimensions of program cost, such as type of provider (i.e., public

versus private), geographic locale, and lead teacher qualifications. Among the nine states we reviewed, five—Florida, Georgia, Kentucky, North Carolina and West Virginia—employ this approach. Likewise, as noted in Chapter 1, the reimbursement rate under SC Vouchers also varies with provider context. If the structure of the reimbursement rate schedule accurately mirrors the pattern of cost differences by provider circumstances, a reimbursement schedule that varies with the provider context will allow for more equal treatment in the extent to which provider costs are covered. This approach, however, introduces more complexity into the process of administering provider reimbursements, which may raise program central administrative costs.

Which Sources of Cost Variation to Recognize in the Reimbursement Rate Schedule

In moving beyond a single reimbursement rate, consideration must be given as to which sources of cost variation to recognize and how many dimensions in total to accommodate in the rate schedule. We have already noted that there are multiple potential sources of variation in CERDEP costs. As more and more dimensions of variation are incorporated in the reimbursement rate schedule, administration of the reimbursement process becomes more and more complex. At the extreme, a reimbursement rate could be assigned to each provider based on its program features, the equivalent of negotiating individual provider contracts that specify the reimbursement rate. Such contracts are employed in North Carolina’s 4K program and New York City’s publicly funded preschool program, just to name a few (NASEM, 2108).

In Table 1.5 we detailed the factors tied to 4K reimbursement for the five states that vary their reimbursement rate. We identified six sources of variation in these states: geographic locale, teacher education and compensation, private versus public provider status, class size, child disability status, and the number of days programs offer services. Most of the five states only vary their reimbursement rate by one or two of these factors; teacher education and compensation was the most common source of variation. Georgia was the exception to this pattern, as the rates in this state vary by all the identified factors, except for child disability status. In the case of SC Vouchers for four-year-olds in full-day programs (like CERDEP), the reimbursement rate varies by geography and quality rating.

Assuming a limited number of sources of cost variation would be recognized because of administrative cost considerations, the challenge becomes identifying which sources to recognize and how many dimensions, in total, to incorporate. One criteria could be to recognize sources of variation outside of the provider’s control, and another would be choices providers make, supported by evidence, to implement higher-quality features. For example, this would mean incorporating variation in the reimbursement schedule based on variation in costs across geographic locales, as well as recognizing the higher per-pupil cost for private providers who opt to employ bachelor’s-level lead teachers instead of their associate-level counterparts. On the other hand, unless there is evidence that smaller class sizes are cost-effective relative to the required class size of 20 (i.e., any additional gain in school readiness is worth the added cost), providers with lower class sizes would not receive a higher per-pupil reimbursement relative to those with full enrollment at 20 students. By linking higher per-pupil reimbursement to providers

choosing evidence-based higher-quality program features (such as the SC Vouchers provider payment schedule), the reimbursement schedule signals the priority given to high quality and thereby incentivizes providers to operate with high-quality features.

Another related criteria could be to provide an incremental reimbursement for program services that meet other policy objectives, such as supporting families' access to 4K programming. The current CERDEP reimbursement for transportation costs is one such example, although it is only available to private providers. The additional reimbursement for a longer day or longer year is another example of adding costly features that support families and their need for care. A possible fourth criteria would be to exclude costs for program components where providers qualify for reimbursement with other public funds. An example would be excluding a reimbursement component for meals when providers qualify for USDA CACFP reimbursement.

How Much of Provider Costs to Cover

Assuming all relevant dimensions of cost variation are identified for per-pupil reimbursement, a remaining issue is what share of provider costs should be covered by state funds. From the perspective of state policymakers, the current share of costs covered may be viewed as appropriate, although our model-based estimates suggest that providers are left with having to cover up to half of the total CERDEP costs from other sources. As public entities, we might expect school districts to have access most readily to other public funds, such as district general funds. This may justify reimbursing a smaller share of CERDEP costs for public school providers relative to private center-based providers for whom alternative funds are less likely to be available. Indeed, given the reimbursement gap under CERDEP presently, private center-based providers must, of necessity, pay lower salaries and provide fewer benefits compared with school district providers in order to break even.

As described in more detail in Chapter 1, four of the states we reviewed—Alabama, Mississippi, Tennessee and Virginia—have explicit policies that require a contribution of local funds to supplement the state reimbursement rates. In other words, the state reimbursement rate is not intended to cover the full cost of the program. Notably, there is wide variation in the per-pupil reimbursement rates among these states, ranging from \$2,150 per pupil in Mississippi to \$6,125 in Virginia. The range of reimbursement rates among states that are not explicit about whether the state rate is designed to cover the full cost of the program is similar: \$2,437 in Florida to \$5,850 in North Carolina. While this illustrative group of ten states (including South Carolina) is not inclusive of all states, we do not observe a clear pattern of higher reimbursement rates in states with no explicit expectation of cost-sharing among the states, providers, and other sources of funds; indeed, the ranges nearly overlap. Consistent with our findings in South Carolina, this may suggest that despite the lack of an explicit cost-sharing mechanism, there is an implicit assumption in these states that the reimbursement rate will not cover the full cost of the program.

Considering the revenue side of the cost-versus-reimbursement equation, the state share of CERDEP costs may be determined by whether there are other sources of revenue, public or

private, to fill the gap. For example, CERDEP reimbursement would not include the per-pupil cost of meals if providers are eligible for reimbursement of food costs under the CACFP, a federal entitlement (meaning all eligible children can participate). Providers that cannot be reimbursed by CACFP would receive the meal component of the CERDEP reimbursement schedule. If the CACFP per-pupil reimbursement rate is determined to be too low, the gap could be filled by CERDEP funds.

Access to federal Title I funds provides another interesting example of a funding source for 4K programs offered by public schools. As discussed in Chapter 2, one of the illustrative districts applies Title I funds to cover a portion of the costs of CERDEP. If full cost reimbursement became available for school districts, it would be important to consider whether a maintenance-of-effort (MOE) requirement should be in place to ensure that district providers sustain funding from other public sources under the new reimbursement approach. Otherwise, other funding sources maybe supplanted by CERDEP funds.

On the cost side, whether a cost component should be covered could vary by whether the costs are deemed essential to achieving high quality or are optional features with no incremental benefit in terms of program impact. Exclusion of certain expenditures from CERDEP reimbursement would require a solid understanding of CERDEP features and which of those have evidence to support their implementation. Examples could include higher expenditures on enrichment activities, such as extra field trips, beyond a specified threshold or the use of a high-cost professional development model that has not been shown to be effective.

Addressing the Compensation Differential for Public Versus Private Providers

One other key policy consideration is whether the CERDEP reimbursement mechanism would institutionalize the substantial differences in compensation between public schools and private center-based providers documented in this study and elsewhere. Our analysis demonstrates that there are not inherent cost differences by provider type beyond those associated with compensation. The compensation differential reflects historic differences in the professionalization of public school teachers, viewed as educators, versus those working in center-based programs, viewed as child care workers (NAS, 2016, 2018). As preK programs have been implemented in public schools, those teachers were paid on par with their counterparts teaching kindergarten and other early elementary grades. As a growing share of preK slots are delivered through public schools, the compensation differential has become a more visible issue.

In recent years, there has been growing attention placed on the need to achieve salary parity between preK teachers in public schools versus private centers and how to achieve that goal (NASEM, 2016, 2018). For example, just as public schools are required to follow a minimum salary schedule, First Steps could require that private center-based CERDEP providers adhere to the same (or a modified) salary schedule for their lead classroom teachers. A higher reimbursement rate would then be associated with adhering to the salary schedule. This approach ensures that the higher reimbursement to providers results in higher compensation for the program staff.

Of course, achieving compensation parity for private providers would result in an increase in the per-pupil cost of CERDEP relative to the status quo, and thus increased state funding if enrollment is to remain the same or increase. However, there would be a host of expected offsetting benefits from achieving parity, such as lower rates of staff turnover (and the accompanying increase in program quality) and a reduced reliance on the part of center-based staff on social safety net programs such as Medicaid and SNAP (Supplemental Nutrition Assistance Program) (NAS, 2018). At the same time, if compensation parity is addressed for 4K teachers in private programs but not for teachers in the same program in rooms with younger children (e.g., infants, toddlers, 3K), private providers may find that the within-site disparities in compensation for similarly qualified staff would create new issues in terms of staff performance, satisfaction, and retention. Thus, the addressing the issue of compensation parity must account for the disparities between public and private programs, as well as the differences across staff within private settings based on the ages of the children they serve (NASEM, 2018).

Addressing the Alignment in Reimbursement Rates Across Publicly Subsidized Programs

As noted in Chapter 1, CERDEP operates along with other programs that subsidize the cost of 4K in both public and private settings, namely the EIA Half Day Child Development Program implemented by school districts, as well as Head Start and SC Vouchers applicable to private center-based programs. Where providers may simultaneously participate in more than one program, as is the case with CERDEP and SC Vouchers in private centers, an issue is whether the reimbursement rates across programs are similar.³³ If reimbursement rates are not aligned, it may provide an incentive for providers to shift toward serving children in the program with the higher reimbursement rate, all else being equal.³⁴

At present, SC Voucher rates for full-day 4K vary by the urban-rural status of the provider and the provider's ABC Quality rating. As of the 2017–2018 program year, the fixed CERDEP per-pupil reimbursement, on an hourly basis, would have been higher than the SC Voucher hourly reimbursement rate for all provider types. All five of the illustrative private center-based providers that we interviewed also serve children receiving subsidies through SC Vouchers. Thus, for these providers and others like them, they may consider the reimbursement rates in the two programs as they enroll four-year-olds in their program. Given the relatively modest difference as of 2017–2018 (a minimum of about \$328 per child on an annual basis, as noted in Chapter 1), the incentive to serve children eligible for CERDEP over those who qualify for SC Vouchers may not be very salient from the providers' perspective. However, if CERDEP rates are raised in the future, in recognition of the need to cover a larger share of providers' costs, the

³³ As noted in Chapter 1, school districts operating CERDEP programs do not receive EIA funding.

³⁴ In California, providers in higher-cost counties in the state received higher reimbursement for the voucher-based CCDF child care subsidies than they did for the state-funded 4K program (as of 2009). The differential was sufficiently large that some private center-based programs terminated their contracts with the state to provide the 4K program in favor of serving children with vouchers (Karoly, 2007).

gap between CERDEP and SC Voucher reimbursement rates will become even larger and potentially more relevant for provider decisionmaking, especially for providers with lower quality ratings and in rural areas where SC Voucher reimbursements are lower.

Recommendations

This discussion has raised a number of policy issues regarding reimbursement of per-pupil costs for CERDEP providers. Many of the policy issues inherently involve tradeoffs that must be considered as part of a policymaking process. We therefore recommend a series of action steps for CERDEP stakeholders in South Carolina to take in support of a deliberate process to determine the potential costs and benefits of modifying the current CERDEP reimbursement mechanism.

Recommendation 1: Convene CERDEP stakeholders to recognize the variation in CERDEP costs and identify options for an adequate and equitable reimbursement policy. The SCDE and First Steps should hold one or more convenings with all CERDEP stakeholders—public and private providers, the EOC, and other relevant parties—to recognize the considerable variation in the estimated total per-pupil cost of delivering CERDEP and the potential strategies for instituting a reimbursement policy that incentivizes quality and ensures an adequate and more-equitable reimbursement of provider costs. The discussions should focus on the policy considerations referenced in the last section, such as which sources of cost variation should be incorporated in the reimbursement schedule, what the expectations are for the state’s share of CERDEP costs and how providers will fill any gap, and whether there is support for moving toward compensation parity for CERDEP teachers in public and private settings.

Recommendation 2: Conduct an analysis of the effects of changes in the reimbursement mechanism on the funding required with no change in enrollment. Guided by the discussions from the first recommendation, EOC should undertake an analysis of the implications of changes in the reimbursement mechanism for state funding of CERDEP with no change in enrollment. If a more-complex reimbursement approach is required, consider options to minimize administrative complexity, such as the use of existing formulas for K–12 funding to adjust for geographic differences in prices. Direct contracts with providers should be considered, as well. Similar to the approach taken in the National Academies report on *Transforming of the Financing of Early Care and Education*, it may be most feasible to phase in a new reimbursement structure over multiple years or gradually across districts given the increase in funding that would be expected to be required.

Recommendation 3: Provide technical assistance to CERDEP providers to ensure they access other sources of funding to cover their costs. To the extent that private providers, in particular, will be expected to cover a portion of their costs from other public or private sources, First Steps should offer technical assistance to providers to ensure those funds are accessed to the maximum extent possible. For example, our set of illustrative providers suggests that some private centers may not access all sources of reimbursement, such as CACFP, for which they qualify. They also may not always fully claim all available CERDEP reimbursement (e.g.,

extended day or summer). Technical assistance would be a valuable resource for private centers (and perhaps school districts) to support the financial viability of CERDEP providers and stable participation in the program. Together, SCDE and First Steps could collaborate on an integrated plan for providing technical assistance and consistent implementation of the support for both public and private CERDEP providers.

Recommendation 4: Collect information on provider costs and refine model-based cost estimates to support the redesign of reimbursement policy. Drawing on inhouse capacity or external expertise, SCDE, First Steps, and EOC should continue to collect information on provider costs and refine model-based cost estimates as reimbursement policies are redesigned. The validity of any reimbursement mechanism depends on the extent to which it is grounded in real-world information about how providers implement the program and the associated cost structure. An evidenced-based approach will encourage buy-in on the part of CERDEP providers and other stakeholders, as well as support from families with children and the public more generally. Likewise, information collected from providers should be periodically updated to account for changes in program delivery and the associated implications for costs.

Recommendation 5: Review alignment between CERDEP’s reimbursement rates and those for other publicly funded early childhood programs in the state. SCDE, First Steps, EOC and other state leaders should review the reimbursement rates for CERDEP and compare them with those of the other publicly funded early childhood programs in South Carolina that apply to 4K. This comparison is particularly relevant for private center-based CERDEP providers, as they also qualify to serve four-year-old children eligible for SC Vouchers. The review would determine the consequences of any current differences in the reimbursement rates across provider types and assess the potential consequences in terms of participation in the subsidized program. If changes are made in the future to the reimbursement rates for CERDEP, the consequences for the difference in the reimbursement rates with SC Vouchers or any other relevant subsidized 4K program should be taken into account.

Appendix A. CERDEP History and Program Features

In this appendix, we present a more detailed review of CERDEP than is included in the body of the report. This information will be useful to readers relatively unfamiliar with the program, or readers looking for a complete compilation of CERDEP information as of the publishing of this report. Specifically we cover the program’s history, key features and requirements, program enrollment, and evaluation literature.³⁵

Program History

CERDEP has its roots in the 2005 court ruling in *Abbeville v. the State of South Carolina*. The case began in 1993, when 40 South Carolina school districts (approximately 50 percent of the state’s districts at the time) challenged the state’s education-funding formula (Click and Hinshaw 2014; Weiler, 2007). Specifically, the districts argued that the formula, based primarily on local property taxes, disadvantaged rural and low-income communities. Over the next decade, the case travelled in and out of the state’s lower circuit courts and the state supreme court. Beginning in July 2003, arguments for an appeal of the case were heard in the Third Judicial Circuit Court, and in a 2005 opinion, the court ruled in favor of both the plaintiff districts *and* the state. In sum, the opinion articulated that there was “nothing wrong with the ‘inputs’ into education or the funding formula provided for local education, or the revenues allocated by the state for public education,” (Weiler, 2007, p. 9) *except* for the poor funding provided for early childhood education. While many saw the overall ruling as a loss for South Carolina public education,³⁶ given that no changes were made to the core K–12 funding formula, the ruling was a win for early childhood services. Following this ruling, the South Carolina General Assembly, the state’s legislative body, established the Child Development Education Pilot Program, a state funded early childhood education program in low-income districts in the state. The program was signed into state law in 2014 by the Read to Succeed Act and renamed CERDEP (South Carolina General Assembly, 2014). By law, the program must serve children from low-income families in

³⁵ This section draws heavily from the following citations: Friedman-Krauss et al.(2018), South Carolina Education Oversight Committee (2018), South Carolina Education Oversight Committee (2017); South Carolina Department of Education (2018a, 2018b), South Carolina First Steps (2018a, 2018b).

³⁶ The 2005 ruling was not the final ruling in the Abbeville case. In 2014, an additional ruling came down from South Carolina’s State Supreme Court stating that indeed the funding formulas were flawed, and failed to provide “minimally adequate” education—the court’s interpretation of the state constitution’s education clause—to all South Carolina children. Following this ruling, the South Carolina General Assembly was tasked with remedying the funding formula. As part of this effort, the Assembly conducted assessments of education facilities and buildings, and provided \$55.8 million for capital improvement projects in the plaintiff school districts. However, in November 2017, the 2014 ruling was vacated by the South Carolina State Supreme Court, meaning that the General Assembly was no longer responsible for altering school funding regulation. The primary argument for the new ruling was that the 2014 decision and the courts’ attempts to influence education-funding legislation was an overreach of judicial power (Gilreath, 2017).

the states' poorest districts, and focus on reading and school readiness. Specifically, the law mandates that programs must provide: “(1) a comprehensive, systemic approach to reading that follows the State Reading Proficiency Plan and the district’s comprehensive annual reading proficiency plan, (2) successful administration of the readiness assessment; (3) the developmental and learning support that children must have to be ready for school; (4) parenting education, including educating the parents as to methods that may assist the child; and (5) identification of community and civic organizations that can support early literacy efforts” (South Carolina Department of Education, 2018c).

CERDEP Features and Requirements

CERDEP is implemented using a mixed-delivery system with both public school districts and licensed private center-based providers able to serve eligible children. Oversight of the public district-based programs is provided by SCDE, while First Steps oversees implementation at private center-based providers. To be eligible to implement CERDEP districts must have a score of 70 percent or higher on the state poverty index.³⁷ These CERDEP-eligible districts may opt in or out of establishing CERDEP classrooms. Private providers may be located anywhere in the state, including in districts that do not meet the 70 percent poverty threshold. All children served by the program in either private or public settings must meet the criteria described below.

Table 1.1 in the body of the report presents a summary of CERDEP’s characteristics. The National Institute for Early Education Research (NIEER) has developed a set of quality indicators, or benchmarks, for state preK programs. In the 2017 State Preschool Yearbook, NIEER revised and released ten new benchmarks for quality (Friedman-Krauss et al., 2018):

- Benchmark 1. Early Learning and Development Standards
- Benchmark 2. Curriculum supports
- Benchmark 3. Teacher degree
- Benchmark 4. Teacher specialized training
- Benchmark 5. Assistant teacher degree
- Benchmark 6. Staff professional development
- Benchmarks 7 and 8. Maximum class size and staff-child ratio
- Benchmark 9. Screenings and referrals
- Benchmark 10. Continuous Quality Improvement System.

³⁷The poverty index is determined by the South Carolina Office of Revenue and Fiscal and is calculated based on the percentage of students and families in a district enrolled in Medicaid, Temporary Assistance for Needy Families, the Supplemental Nutrition Assistance Program, and Department of Social services Foster Care.

In the final two columns of Table 1.1, we indicate, where relevant, the corresponding NIEER standard and whether the CERDEP features meet the applicable benchmark (as determined by NIEER’s analysis of data from the 2016–2017 school year). As of 2016–2017, CERDEP met seven of ten quality metrics. In comparison to other states, meeting seven benchmarks puts South Carolina in the middle to the high end of the distribution in the 2016–2017 school year (the most recent with comprehensive data). Only three states—Michigan, Alabama and Rhode Island—meet all ten, while five states met nine. Ten states met fewer than half of the benchmarks.

To be eligible for CERDEP, children living within CERDEP-eligible districts must have reached age four on or before September 1 and meet one of the following criteria: (a) have family income at or below 185 percent of the federal poverty guidelines or (b) be eligible for Medicaid. Families can choose to apply for a CERDEP slot in either a district or a private provider.

Across both public and private settings, all CERDEP providers are required to be licensed by the Division of Early Care and Education in the South Carolina Department of Social Services. All programs must operate for at least 180 school days, five days a week, with at least 6.5 hours of instruction per day—or the traditional school year service option. In the 2017–2018 school year, the General Assembly made additional funds available to expand CERDEP offerings. CERDEP sites had the option of three different expansions which included: extended day—180 days per year and up to 8.5 hours of instruction per day; extended year—up to 220 days per year and 6.5–8.5 hours of instruction per day; and summer—up to 220 days per year total with 180 days of 6.5–8.5 hours during the school year and 40 days of a summer program with up to 8.5 hours of instruction per day.³⁸

In Table A.1, we present the distribution of chosen service options across the public school districts and private providers in the 2017–2018 school year. Approximately 15 and 30 percent of private providers and districts, respectively, administered one or more CERDEP classrooms with the traditional year. The majority of school districts and private providers (about 60 percent each) opted into the summer program option. The extended day and extended year were the least frequently adopted options. As discussed in more detail in the full report, each service option is associated with a different per-pupil reimbursement rate. For all service options, the teacher-child ratio within a classroom cannot exceed 1:10, and classrooms with more than 11 children are required to have at least one lead teacher and one instructional assistant.

³⁸ First Steps and SCDE defined the extended year and summer options differently. As defined by SCDE, the public districts had the option of between 6.5-8.5 hours of instruction per day for extended year, while the private providers who implemented the extended year option capped their hours at 6.5 (as defined by First Steps). Similarly, for the summer option, public schools had the option of between 6.5-8.5 hours of instruction for the 180 days of the school year, and 8.5 hours of instruction for the 40 day summer program. The private providers who implemented the summer option implemented only 6.5 hours only during the school year and 8.5 hours per day of summer instruction.

Table A.1. CERDEP Service Options for Participating Districts and Private Providers in 2017–18

Service Option	Districts		Private Providers	
	N	Percent	N	Percent
Traditional year	18	29.5	29	14.7
Extended day	0	0.0	32	16.2
Extended year	6	9.8	25	12.7
Summer	37	60.7	117	59.4

NOTES: There were a total of 197 private providers across the state and 61 districts implementing CERDEP in 2017–18. A total of 5 private providers implemented multiple service options (different classrooms implemented different service options). We count these providers in each of the service option totals they offered. Therefore, the totals across the private provider service options to not add up to a total of 197 providers or 100 percent.

SOURCES: South Carolina Department of Education (2018a) and South Carolina First Steps (2018a).

In 2017, South Carolina's Division of Early Care and Education in the Department of Social Services and the SCDE's Office of Early Learning and Literacy worked together to develop the South Carolina Early Learning Standards (SC-ELS; South Carolina Early Learning Standards Interagency Stakeholder Group, 2017). A number of other stakeholders, including First Steps and early childhood researchers at the University of South Carolina, were also involved in the effort. The document serves as universal guide for the state of the development and learning of young children ages birth to five. All CERDEP providers are required to align their programming with the standards. In addition to using the SC-ELS, programs are required to use an approved, research-based curriculum. In the 2017–2018 school year, the approved curricula for school districts were *Big Day in Pre-K* (published by Houghton Harcourt), *Creative Curriculum* (published by Teaching Strategies), *High Scope* (published by High Scope) *World of Wonders* (published by McGraw Hill), and the curriculum associated with Montessori programs. In the 2018–2019 school year, *InvestiGator Club* (published by Robert Leslie) was added to the list of approved curriculum for the districts. The approved curricula for the private centers was a smaller list, including only Creative Curriculum, the High Scope curriculum and Montessori. Private providers also had the option to seek approval with First Steps to use an alternative curricula

All programs assess children's literacy at the start and end of their 4K year. The districts were allowed to select among three different assessments to use: *Individual Growth and Development Indicators* (published by EL Labs, Inc.); the *Phonological Awareness Literacy Screening (PALS™) Pre-K* (published by IO Education); and *Teaching Strategies® GOLD™* (published by Teaching Strategies, LLC). First Steps requires all private providers to use *Teaching Strategies® GOLD*. CERDEP guidelines do not require programs to conduct other development or health screenings, but such services are recommended when districts and providers have the resources to do so.

The requirements for teacher qualifications differ across the public and private settings. In the school districts, all lead teachers are required to have a bachelor's degree and a South Carolina certification in early childhood education. Teacher's assistants must have a high school

degree or the equivalent, and have at least two years of experience working with children under five years old and must successfully complete or enroll in the Early Childhood Development Credential course within 12 months of being hired. In the private settings, teachers with bachelor’s degrees are preferred, but lead teachers are only required to have a two-year college degree in early childhood education, or a two-year college degree in another field with additional early childhood experience (such as having a CDA credential). In addition, all lead teachers without a 4-year degree must show evidence that they are enrolled in four-year teacher education program with an emphasis on early childhood education. Instructional assistants in the private setting are required to have a high school degree or equivalent and some early childhood experience.

Once hired, both CERDEP and Department of Social Services regulations require that all lead teachers complete 15 hours of professional development per year. Teachers have the option to earn these hours through professional development opportunities they seek out on their own (e.g. college course or online workshops) or by attending professional development organized by First Steps (for the private settings) and the school districts (for the public settings). The South Carolina Center for Child Care Career Development is a statewide organization that certifies and tracks CERDEP teachers’ professional development hours.³⁹

CERDEP providers also engage in regular program quality monitoring and oversight activities. The SCDE Office of Early Learning and Literacy (OELL) monitors the quality of the programs in the districts. During the annual visit, OELL staff use The Early Language and Literacy Classroom Observation is used to assess classroom quality. First Steps monitors program quality for the private providers using the Early Childhood Environment Rating Scale. The First Steps staff aims to visit all classrooms implementing CERDEP twice monthly; however, the frequency of visits varies by region. In addition to the CERDEP-mandated quality visits, the Division of Early Care and Education of the South Carolina Department of Social Services administers ABC Quality. Neither public nor private providers implementing CERDEP are required to participate, but both are eligible if they choose to do so. In addition to receiving an annual rating (from A+, or “Surpasses” quality standards, to C or “Meets” quality standards), participating programs receive a range of services, including staff professional development and quality assistance. In the 2016–2017 school year, over 90 percent of private CERDEP providers were enrolled in ABC Quality (EOC, 2017); the state does not collect comprehensive data on district enrollment in the QRIS.

CERDEP Enrollment

In Table A.2, we present information on the number of children served by CERDEP in the 2016–2017 and 2017–2018 school years. Specifically, these figures represent the number of CERDEP-

³⁹ In a forthcoming report, RAND that will offer more detailed review of the professional development offerings for CERDEP teachers in public and private settings.

funded slots for students.⁴⁰ In 2017–2018, 64 districts were CERDEP-eligible, and 61 opted into the program, approximately 74 percent of the states’ 82 total districts. Additionally, 197 private providers across the state implemented CERDEP in 2017–2018. In this school year, CERDEP served a total of 11,735 children; the large majority of children—about 83 percent—attended a CERDEP classroom in a public school district, with less than 2,000 children attending a CERDEP classroom at a private provider. Based on recent state estimates, the roughly 11,700 children served by CERDEP represented about 34 percent of all low-income children in the state at the time.⁴¹ The enrollment between 2016–2017 and 2017–2018 was fairly consistent, with only a slight drop in the number of students.

Reliable enrollment data from previous years is not available due to past errors in reporting. In 2006–2007, the first year of the program, only the 34 trial and plaintiff districts in their from the *Abbeville* case and the private providers in their catchment area were eligible to administer CERDEP. The number of eligible districts remained constant until the 2013–2014 school year, when the General Assembly broadened the eligibility requirements to all districts with a score of 75 percent or above on the state poverty index. This change increased the number of eligible districts to 51, also increasing the number of children served. Then in the 2014–2015 school year—the year in which the program was codified in to law—the eligible criteria was changed to include districts with a poverty index of 70 percent or less, increasing the number of eligible districts to 64 and again likely increasing the number of children served. As of the 2018–2019 school year, the criteria and number of eligible districts have not changed.

Table A.2. Funded CERDEP Slots in the 2016–2017 and 2017–2018 School Years by Provider Type

Type of Provider	2016–17		2017–18	
	Number of Slots	Percent	Number of Slots	Percent
Public CERDEP	9,806	83.2	9,789	83.4
Private CERDEP	2,170	18.4	1,946	16.6
Total CERDEP	11,784	100.0	11,735	100.0

SOURCE: Unpublished data from EOC.

The Evaluation Literature on CERDEP and State-Funded PreK in South Carolina

While there has never a causal evaluation of the effects of CERDEP on children’s literacy or school readiness outcomes, there is some evidence to suggest that state funded early childhood education in the state of South Carolina supports child development. In the 2004–2005 school

⁴⁰ Due to attrition and turnover throughout the school year, the number of children who spent at least 1 day in a CERDEP classroom may exceed these numbers. However, reliable data does not exist on the exact number of children who held these slots is not available.

⁴¹ Based on estimates of low-income children in the state from EOC (2018).

year (2 years before the pilot program that would become CERDEP was founded), South Carolina was included in a multi-state evaluation of state-funded preK programs (Wong, Cook, Barnett, and Jung, 2008). At that time, the Half-Day Child Development Program was the only state-funded preK in the state. It was funded through the EIA with additional support from First Steps to School Readiness. At this time (like the present), children were served in both private and public settings, with the majority of children enrolled in public district-based settings. Using a quasiexperimental research design that capitalized on the child eligibility age cut-off, the evaluation estimated that South Carolina preK had a positive and significant impact on children's print awareness, but not on their receptive vocabulary (Wong et al., 2008).

As described above, all CERDEP children are assessed on their literacy skills at the beginning and end of their 4K year. Descriptive analyses from 2016–2017 indicate that by the spring of that school year, over 75 percent of CERDEP children who took the cognitive assessments met or exceeded normal expectations for children in their age group (EOC, 2018). These analyses lack a research design that can confirm whether CERDEP caused children to be kindergarten-ready. However, the descriptive analyses do suggest that most children who participate in CERDEP enter kindergarten with skills on par with national norms.

Appendix B. 4K Reimbursement Mechanism Sources

Table B.1 documents the sources used to compile the reimbursement mechanism information on the state 4K programs listed in Table 1.5 of Chapter 1.

Table B.1. 4K Reimbursement Mechanism Sources

State	Source
Alabama	Alabama Department of Early Childhood Education, “Grants and Funding: About the First Class Pre-K Program,” website, undated. As of November 27, 2018: https://children.alabama.gov/firstclass/prekgrants/
Florida	Florida Early Learning, “Voluntary Prekindergarten Program Payment Rate Schedule,” undated. As of November 27, 2018: http://www.floridaearlylearning.com/Content/Uploads/floridaearlylearning.com/files/2014-2015%20VPK%20Funding%20Allocations.pdf
Georgia	Georgia Department of Early Care and Learning, “2018-2019 Georgia’s Pre-K Rate/Per Child Estimate Chart,” undated. As of November 27, 2018: http://dec.al.ga.gov/documents/attachments/2018-2019%20RateChart.pdf
	Georgia Department of Early Care and Learning, “Georgia’s Pre-K Program 2018 - 2019 Pre-K Providers’ Operating Guidelines,” 2018. As of November 27, 2018: http://dec.al.ga.gov/documents/attachments/Guidelines.pdf
Kentucky	Kentucky Department of Education, “Preschool Staff Note: 2018-19 Preschool Grant Allotment System and Funding Rates,” June 2018. As of November 27, 2018: https://portal.ksba.org/public/Meeting.aspx?PublicAgencyID=4388&PublicMeetingID=23380&AgencyTypeID=1
Mississippi	Mississippi Code, Title 37 Chapter 21, “Early Childhood Education Early Learning Collaborative Act,” MS Code § 37-21-51, 2017. As of November 27, 2018: https://law.justia.com/codes/mississippi/2017/title-37/chapter-21/early-learning-collaborative-act/section-37-21-51/
North Carolina	North Carolina Division of Child Development and Early Education and North Carolina NC Pre-K, “North Carolina Pre-Kindergarten (NC Pre-K) Program Requirements and Guidance,” 2018. As of November 27, 2018: https://ncchildcare.ncdhhs.gov/Portals/0/documents/pdf/N/NCPre-K_Program_Requirements_Guidance.pdf
South Carolina	South Carolina Department of Education, “CERDEP Guidelines,” August 2018. As of November 27, 2018: https://ed.sc.gov/scdoe/assets/File/instruction/early-learning-literacy/CDEP/CERDEP%20guidelines%2018-19%20approved%20%2321464(1).docx
Tennessee	Tennessee Offices of Research and Education Accountability, “Tennessee’s Pre-Kindergarten Program,” 2009. As of November 27, 2018: http://www.comptroller1.state.tn.us/repository/RE/PreKHistory.pdf
	Tennessee Comptroller of the Treasury, “The Basic Education Program (BEP),” undated. As of November 27, 2018: https://www.comptroller.tn.gov/orea/bep

Table B.1. 4K Reimbursement Mechanism Sources, Continued

State	Source
West Virginia	West Virginia Department of Education, “Public School Support Program Total Estimated Allowance for Early Childhood Programs for the 2015-26 Year,” December 23, 2015. As of November 27, 2018: http://wvde.state.wv.us/oel/static/docs/total-estimated-allowance-early-childhood-programs.pdf
	West Virginia Department of Education Office of Early Learning, “2017 Annual Report,” 2018. November 27, 2018: http://static.k12.wv.us/oel/docs/spotlight/oel_2017annualreport.pdf
	West Virginia Legislature, West Virginia Code, “Chapter 18. Education. Article 9A. Public School Support,” §18-9A-1, 2017. As of November 27, 2018: http://www.wvlegislature.gov/WVCODE/Code.cfm?chap=18&art=9A#09A

Appendix C. Methods for Chapter 3 Cost Model

This appendix provides additional details on the methods for the cost model presented in Chapter 3. As noted in Chapter 3, we require assumptions about the staffing model in public and private settings, staff compensation, and other unit costs. We provide additional detail on assumptions in those three areas.

Staffing Model

Table C.1 summarizes the staffing model assumed for each of the four provider types, both staff at the classroom level and staff at the site level (and district level in the case of type A public providers). Staff are shown as full-time equivalent (FTE) positions. For the classrooms, all provider types in the public and private sectors are assumed to operate with one lead teacher, one assistant teacher, and a 0.25 FTE floater (who substitutes in when needed so that there are two staff per room at all times).

In the case of the Type A school district site, we assume a district-level ECE coordinator and a school principal, each of whom serves the larger 4K district or overall school population of students. We assume one district ECE coordinator for every 300 4K students in the district. Thus, for our baseline, we assume a half-time position. Only a share of the compensation costs for the district- and school-level administrators will be assigned as CERDEP costs as follows:

Table C.1. Assumed Baseline FTE Staffing Structure for CERDEP Cost Model, by Provider Type

Staff Role	Number of FTE Staff			
	Type A Public Site	Type B Private Center	Type C Private Center	Type D Private Center
Classroom staff, per classroom				
Lead teacher	1	1	1	1
Assistant teacher	1	1	1	1
Floater	0.25	0.25	0.25	0.25
Administrative staff, per site				
School principal	1	–	–	–
School/center ECE director	0.33	1	1	1
School/center ECE assoc. director	–	1	1	1
Office manager	0.33	1	1	1
Administrative assistant	0.33	1	1	1
Administrative staff, per district				
District ECE coordinator	0.50	–	–	–

SOURCE: Authors' assumptions.

NOTES: – = not applicable.

- **School district ECE coordinator:** The type A district-based site is assigned a portion of the compensation for the district ECE coordinator, where the share is based on CERDEP enrollment at the district site as a share of the overall 4K enrollment in the district. Given the type A assumption (see Table 3.2), with 40 CERDEP children at the site and 150 4K children in the district, the type A center will be assigned 27 percent of the (half-time) district ECE coordinator’s compensation.
- **School principal:** A similar logic is employed, except that we use the share of CERDEP enrollment relative to total site enrollment to assign a share of the principal’s salary. Using the type A case (see Table 3.2), this means 40 CERDEP students out of a total school enrollment of 450 students, which equates to a 9 percent share of the principal’s salary.

The type A school-level ECE director is assumed to manage the CERDEP 4K classrooms, with one such director for every 120 students. With a CERDEP enrollment of 40 in the baseline case, this means a one-third time position. The same assumption is made for the 0.33 FTE office manager and the 0.33 FTE administrative assistant for the 4K program. All of the compensation for these CERDEP-specific staff is assigned to CERDEP.

The administrative staffing model is somewhat different for the private centers (type B, C, and D in Table 3.2). Each center is assumed to have one FTE ECE director, associate director, office manager, and administrative assistant. As far as site-level costs, a share of their salary is attributed as CERDEP costs based on the enrollment of children in CERDEP rooms as a share of total enrollment. Given the assumptions for type B, C, and D private centers with 40 children in CERDEP rooms and 120 children overall, 33 percent of the salary for the site-level administrative staff is assigned as a CERDEP cost.

Staff Compensation

Table C.2 shows the assumed salary levels for the classroom and administrative staff positions in Table C.1. The salaries for the baseline model are shown the first column, with panel (a) pertaining to public programs and panel (b) to private programs (when parity is not assumed). The sensitivity analysis employs lower- and higher-cost salary assumptions corresponding to the second and third columns in Table C.2.

Table C.2. Assumed Occupational Salaries for CERDEP Cost Model, Baseline and Alternative Scenarios (2017 Dollars)

Staff Role	Baseline Median: \$ for 50 th Percentile	Lower Cost: \$ for 25 th Percentile	Higher Cost: \$ for 75 th Percentile	BLS Category (Code) / Notes
a. School-district programs				
Classroom staff				
Lead teacher	51,430	41,000	61,710	Kindergarten teachers, except special education (25-2012)
Assistant teacher / floater	20,920	18,050	25,070	Teacher assistants (25-9041)
Administrative staff				
District ECE coordinator	83,870	71,040	97,740	Education administrators, elementary and secondary school (11-9032)
School principal	83,870	71,040	97,740	Same as above
School ECE director	62,903	53,280	73,305	75% of school principal
Office manager	47,990	37,970	61,250	First-line supervisors of office and administrative support workers (43-1011)
Administrative assistant	26,230	20,840	31,900	Office clerks, general (43-9061)
b. Private Centers				
Classroom staff				
Lead teacher	23,060	18,650	30,770	Preschool teachers, except special education (25-2011)
Assistant teacher / floater	19,030	17,350	22,410	Childcare workers (39-9011)
Administrative staff				
Center director	53,280	43,091	62,903	Modified school ECE director (see text)
Center associate director	45,288	36,627	53,467	Modified school ECE director (see text)
Office manager	37,970	30,709	47,990	Modified school office manager (see text)
Administrative assistant	20,840	19,000	26,230	Modified school administrative assistant (see text)

SOURCE: Authors' assumptions and BLS (undated).

NOTES: BLS data for South Carolina are for May 2017. – = not applicable.

- Our salary assumptions are drawn from BLS data on occupational wages for South Carolina as of May 2017 (BLS, undated). We use the median estimates, where available, for the closest occupation code to each staff position. In contrast, for the lead teacher in a private center, we used the BLS occupational category for preschool teachers, which had a South Carolina median of about \$23,000, reflecting the lower salaries in private programs. Other notable assumptions are as follows: We use the BLS occupational category for teacher assistants for assistant teachers and floaters in public school programs, with a median South Carolina salary of almost \$21,000. For private programs,

we use the BLS category of child care workers for the assistant teacher and floater positions, with a median salary in South Carolina of about \$19,000.

- For the administrative staff positions in the type A public school programs, we use the BLS education administrators category for the district ECE coordinator and school principal, with a South Carolina median of nearly \$84,000. Because there is no category for a school ECE director, we assume their salary is 75 percent of the principal’s salary (or about \$63,000).⁴² The office manager and administrative assistant positions are based on the closest BLS occupational category (see Table C.2), with median salaries for South Carolina of about \$48,000 and \$26,000, respectively.
- For the administrative staff positions in private centers, there is no corresponding BLS occupational category. Thus, we modify the salaries assumed for public providers. Essentially, we take the salary at the 25th percentile of the public school salary distribution, based on the BLS data, and assume that value as the median (50th percentile) for the private providers. Thus, for example, the 25th percentile value for the school ECE director, of \$53,280, is assigned as the median salary for the private center director. This salary is consistent with the salaries recorded for the illustrative private center cases in Chapter 2.⁴³ The center’s associate director is assumed to have a salary equal to 80 percent of the director. A similar downward shift in the salary distribution is made for the office manager and administrative assistant, again with resulting salaries that are consistent with our observed Chapter 2 cases. A final assumption concerns the salary for an associate-level lead teacher for type D private providers. In that case, we assume the salary is 90 percent of the level for a private center bachelor’s-level teacher under Type C.

Other Unit Prices

Table C.3 displays the cost per unit of other cost components beyond classroom and administrative staff. Unit prices are organized according to major cost categories of professional development, classroom resources, meals, transportation, occupancy, and other operating costs. In most of these categories, there are cost subcomponents. Unit costs are denominated either on a per-staff, per-pupil, per-square foot, or per-site basis, as shown in the last column of Table C.3. These unit costs include associated staffing costs, as relevant, such as meal preparers in the case of food costs, and drivers in the case of transportation costs.

⁴² We do not have access to salary data across school districts, hence the need to make assumptions. For this salary item, with our assumptions, the per-child cost is about \$520. Thus, if the salary level were 10 percent higher or 10 percent lower, this would affect per pupil cost by about plus or minus \$50.

⁴³ We use the 50th percentile value for public programs as the 75th percentile for private programs, and impute a value for the 25th percentile based on the 25th/50th percentile ratio for private program lead teachers. Essentially, we use a downward-shifted salary distribution for private providers relative to public providers.

The baseline unit cost estimates in the first column of Table C.3 are based on the PCQC estimates for South Carolina (Office of Child Care, undated). Some adjustments were made based on the cost patterns for the illustrative providers (e.g., transportation cost per pupil was not included in the PCQC). Because the number of children, rooms, and sites are the same across provider types A to D, the baseline costs per pupil are the same regardless of provider context. That is also true under the alternative scenarios involving lower and higher costs. The one exception is the cost per pupil for professional development. As shown in Table C.3, the assumed costs under the baseline and alternative cost structures is on a per staff basis. Because of the slight differences in the assumed FTE staffing for the public provider (type A) versus the private providers (types B, C, and D), there is a small difference in the per-pupil cost for professional development across the public versus private settings.

Table C.3. Assumed Unit Prices for CERDEP Cost Model, Baseline and Alternative Scenarios (2017 Dollars)

Cost Component	Unit Cost			Unit
	Baseline	Lower Cost	Higher Cost	
Professional development	200.00	185.00	215.00	Per staff
Classroom materials and supplies				
Education equipment, curricula	100.00	92.50	107.50	Per pupil
Education supplies	50.00	46.25	53.75	Per pupil
Meals				
Food and food preparation	1,000.00	925.00	1,075.00	Per pupil
Kitchen supplies	50.00	46.25	53.75	Per pupil
Transportation	250.00	231.25	268.75	Per pupil
Occupancy ^a				
Rent, lease, mortgage	13.65	12.63	14.67	Per square foot
Utilities	2.19	2.03	2.35	Per square foot
Building insurance	1.34	1.24	1.44	Per square foot
Maintenance, repair, cleaning	2.85	2.64	3.06	Per square foot
Other operating costs				
Office supplies	30.00	27.75	32.25	Per pupil
Office equipment	22.00	20.35	23.65	Per pupil
Insurance (e.g., liability, accident)	75.00	69.38	80.63	Per pupil
Postage	24.00	22.20	25.80	Per pupil
Advertising	25.00	23.13	26.88	Per pupil
Telephone and internet	24.00	22.20	25.80	Per site
Audit	50.00	46.25	53.75	Per site
Fees and permits	8.33	8.33	8.33	Per site
Miscellaneous	15.00	13.88	16.13	Per pupil

SOURCE: Based on PCQC (Office of Child Care, undated).

^a For occupancy costs, the model assumes each CERDEP room is 1,280 square feet.

Appendix D. Data Collection Instruments

This appendix includes the two instruments used for the collection of CERDEP program and expenditure information for school districts and private centers.

RAND Corporation
Evaluation of the South Carolina Early Reading
Development and Education Program (CERDEP)

Interview with CERDEP School Districts

Provider ID: _____

Date of Interview: _____ / _____ / _____
Month Day Year

Interview Start Time: _____ : _____ AM / PM

Interview Stop Time: _____ : _____ AM / PM

Interview Topics and Respondents

This interview will cover the topics listed in the table below. We also indicate potential documentation that may be useful to bring to the interview.

As indicated in the table, the program director may be the most knowledgeable person to respond to the first three topics. For the remaining topics, the best respondent will be the school or program staff member most familiar with program revenue sources and expenditures for the most recent completed fiscal year.

Topic	Potential Documentation	Likely Most Knowledgeable Respondent
Program structure (operating hours, days, and weeks per year; ages of children served; number of classrooms)	Program records	Program director
Child enrollment by age and part- or full-time status	Program records	Program director or director of admissions
Staffing structure	Program records	Program director
Sources of income/revenue	Annual audit, annual financial report, tax return	Chief financial officer, bookkeeper
Expenditures for the last completed fiscal year: staff wages and benefits, facilities, education materials, food service, transportation, other materials, supplies, and services	Annual audit, annual financial report, tax return	Chief financial officer, bookkeeper
Donated labor, space, and other materials	Program records	Chief financial officer, bookkeeper

QUESTIONNAIRE

A. GENERAL SCHOOL/CENTER INFORMATION

A1. What is the beginning and ending date of the district's most recent completed fiscal year?

START: Month _____ Year _____ END: Month _____ Year _____

This will be the reference program year in describing your CERDEP program (e.g., operating structure, enrollment, staffing, expenditures).

A2. How many sites (schools or other facilities) did your CERDEP program operate in the most recent completed fiscal year? Please list the name of each site.

SITE 1: _____

SITE 2: _____

SITE 3: _____

SITE 4: _____

SITE 5: _____

SITE 6: _____

SITE 7: _____

SITE 8: _____

We would like to collect some information about the CERDEP program in each site in your district (e.g., school or other facility). Please describe the program as it operated in the most recent completed fiscal year. [IF A RESPONSES FOR A GIVEN QUESTION IS THE SAME ACROSS SITES, FILL IN THE FIRST COLUMN AND NOTE "SAME" ACROSS THE REMAINING COLUMNS. USE AN ADDITIONAL PAGE IF MORE THAN 6 SITES.]

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6
A3. In what type of <u>building or facility</u> is the CERDEP program at this site located? [SEE CODES ON THE BOTTOM OF THE PAGE.]	_____ [code]	_____ [code]	_____ [code]	_____ [code]	_____ [code]	_____ [code]
A4. Is the CERDEP program at this site <u>accredited</u> by the National Association for the Education of Young Children (NAEYC) or by any other organization (e.g., American Montessori Society [AMS], Association for Montessori Internationale [AMI])? [SELECT ONE RESPONSE.]	YES, by					
	NO	NO	NO	NO	NO	NO
A5. How many <u>days</u> of the week is the CERDEP program at this site at the site regularly <u>open</u> ?	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS
A6. What <u>hours of the day</u> is the CERDEP program at this site typically <u>open</u> Monday through Friday?	OPEN: _____ AM/PM	OPEN: _____ AM/PM	OPEN: _____ AM/PM	OPEN: _____ AM/PM	OPEN: _____ AM/PM	OPEN: _____ AM/PM
	CLOSE: _____ AM/PM	CLOSE: _____ AM/PM	CLOSE: _____ AM/PM	CLOSE: _____ AM/PM	CLOSE: _____ AM/PM	CLOSE: _____ AM/PM
A7. How many <u>days</u> does the CERDEP program at this site operate during the <u>academic year</u> ?	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS
A8. If applicable, how many <u>days</u> does the CERDEP program at this site operate during the <u>summer months</u> ? [ENTER ZERO IF THERE IS NO SUMMER PROGRAM.]	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS	_____ DAYS

CODES FOR A3. SITE BUILDING OR FACILITY

A PUBLIC SCHOOL	1	A PUBLIC LIBRARY	6
A PRIVATE SCHOOL	2	ITS OWN BUILDING	7
A COLLEGE OR UNIVERSITY	3	A PLACE OF EMPLOYMENT OR BUSINESS.....	8
A COMMUNITY CENTER	4	MORE THAN ONE PLACE	9
A CHURCH, SYNAGOGUE OR OTHER PLACE OF WORSHIP	5	SOME OTHER PLACE, [SPECIFY]	10

Please continue to describe the program as it operated in the **most recent completed fiscal year**. *USE AN ADDITIONAL PAGE IF NEEDED.]*

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6
A9. How many classrooms at this site serve 4K children with CERDEP funding?	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS
A10. What is the enrollment of 4K CERDEP children in these CERDEP classrooms? <i>If enrollment levels varied across the year, please use the approximate enrollment as of November 15.</i>	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER
A11. What is the enrollment of 4K nonCERDEP children in these CERDEP classrooms?	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER
A12. How many other classrooms at this site serve 4K children <u>but do not use CERDEP funding</u> ?	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS	_____ ROOMS
A13. What is the enrollment of 4K children in these other classrooms?	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER
A14. Across the CERDEP and nonCERDEP classrooms (if any), what was the enrollment of children identified with special needs? By special needs, we mean children with a physical disability (including hearing or sight problems), mental disabilities, or emotional disabilities. (Identified means with an IEP or IFSP.)	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER
A15. For the most recent completed fiscal year, were there families who were waiting to enroll their preschool-age child but you could not admit at that time? That is, did you have a waiting list children? <i>[SELECT ONE RESPONSE.]</i>	YES NO → A17					
A16. For the most recent completed fiscal year, what was the maximum number of 4K children that were on your waiting list?	_____ NUMBER → A18					
A17. For the most recent completed fiscal year, what was the maximum number of 4K slots that were unfilled?	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER	_____ NUMBER

The following questions refer to the 4K sites across your district during the most recent completed fiscal year.

A18. Across the sites in your district with 4K programs, do any of your sites offer the following programs for 4K children?
By full-day program, we mean programs operating more than 30 hours per week and at least five days per week.

[SELECT ALL THAT APPLY.]

- CERDEP funded full-day program..... 01
- CERDEP funded extended-day program 02
- CERDEP funded summer program 03
- CERDEP funded extended-year program 04
- District or public school funded full-day 4K program 05
- District or public school funded part-day 4K program..... 06
- Head Start sponsored full-day program..... 07
- Head Start sponsored part-day program 08
- Other full-day 4K program (e.g., paid for by parent fees or other subsidies)..... 09
- Other part-day 4K program (e.g., paid for by parent fees or other subsidies) 10
- Part day extended care before, during, or after the 4K program 11
- Summer camp programs for preschoolers 12
- Evening care..... 13
- Weekend care 14
- Sick care 15
- 24-hour care 16
- Bilingual program..... 17
- Other (specify: _____)..... 18

A19. Across the sites in your district with 4K programs, please indicate whether any of the programs provide the services listed below. Not all programs would be expected to provide all of these services. *[SELECT ALL THAT APPLY.]*

- Vision screening 01
- Hearing screening 02
- Dental screening..... 03
- Measurement of height and weight annually04
- Speech screening..... 05
- Speech services 06
- Developmental assessments..... 07
- Counseling services for children and parents (other than routine parent conferences) 08
- Referral for parents to social services such as obtaining food stamps, financial aid, housing, or medical care 09
- Transportation services from home to the program..... 10
- Transportation services from the program to home..... 11
- Meals for children provided by the program 12
- Other (specify): _____.....13

B. STAFFING POLICY, QUALIFICATIONS, AND BENEFITS

The questions in this section refer to the staffing policy and staffing benefits for the CERDEP sites across your district as they applied during the most recent completed fiscal year.

Do you use different titles than teacher, assistant teacher or aide, teacher-director, and administrative director for the staff positions in your district?

Teacher: _____

Assistant Teacher/Aide/Instructional Assistant/Floater: _____

Teacher-Director: _____

Administrative Director: _____

Other (Specify _____)

Are there any other regular staff who work directly with the CERDEP children (e.g., music teacher, swim instructor, van drivers, nurse)? If yes, please indicate their titles. *(Include these titles together as 'other' in the following questions.)*

B1. For the following categories of staff, do you provide any in-service training or require continuing education (other than staff meetings), either at or away from the program, beyond the professional development provided and paid for by CERDEP? *[SELECT ALL THAT APPLY.]*

- Teachers..... 1
- Assistant teachers/aides..... 2
- Teacher-directors 3
- Administrative directors 4
- Other..... 5

B2. Which of the following do you provide for your paid full-time teachers and assistant teachers or aides, and to your part-time employees? *[SELECT ALL THAT APPLY IN EACH ROW.]*

	FULL-TIME TEACHERS	PART-TIME TEACHERS	ASST. TEACHERS
--	-----------------------	-----------------------	-------------------

- | | | | |
|---|----|----|----|
| a. Reduced child care fees | 01 | 02 | 03 |
| b. Compensation for overtime | 01 | 02 | 03 |
| c. At least partially paid retirement plan | 01 | 02 | 03 |
| d. Fully paid health insurance | 01 | 02 | 03 |
| e. Partially paid health insurance | 01 | 02 | 03 |
| f. Paid health insurance for dependents | 01 | 02 | 03 |
| g. At least partially paid dental insurance | 01 | 02 | 03 |
| h. Paid sick leave or personal leave | 01 | 02 | 03 |
| i. Paid vacations | 01 | 02 | 03 |
| j. Paid to attend staff meetings | 01 | 02 | 03 |
| k. Paid to attend professional development | 01 | 02 | 03 |

B3. What is your definition for part-time for defining benefits?

_____ Hours/Week = Part time

_____ No distinction for benefits

B4. Now I would like to ask you about staff qualifications for defined as classroom teachers (lead or co-lead teachers).

NUMBER IN CERDEP CLASSROOMS	NUMBER IN OTHER 4K CLASSROOMS
-----------------------------------	-------------------------------------

- a. How many classroom lead/co-lead teachers have a four-year college degree or graduate degree and are certified in early childhood education? _____
- b. How many classroom lead/co-lead teachers have a four-year college degree or graduate degree but are not certified in early childhood education? _____
- c. How many classroom lead/co-lead teachers have at most a two-year associate's degree in early childhood education, child development, or a related field? _____
- d. How many classroom lead/co-lead teachers have none of the above degrees/credentials but have a Child Development Associate (CDA) credential? _____
- e. How many classroom lead/co-lead teachers have none of the above degrees/credentials? _____

CHECK: Total number of teachers in CERDEP and other classrooms should sum to all lead or co-lead teachers.

B5. Do teachers and/or assistant teachers/aides in your program work under a collective bargaining agreement negotiated by a union? [SELECT ONE RESPONSE.]

YES 1

NO 2

C. REVENUE SOURCES FOR MOST RECENT FISCAL YEAR

REVENUE SOURCES

C1. For the most recent completed fiscal year, please indicate if you had any revenue from each of the following public or private sources for your sites with CERDEP classrooms. [SELECT ONE RESPONSE PER ROW.]

Public Sources

	YES	NO	DON'T KNOW
a. CERDEP 4K new provider funds for equipment and supplies	1	2	D
b. CERDEP 4K per child reimbursement for instruction	1	2	D
c. CERDEP 4K per child reimbursement for transportation	1	2	D
d. CERDEP 4K funds for program expansion	1	2	D
e. Education Improvement Act Child Development Program (EIA 4K) funds	1	2	D
f. Head Start or Migrant Head Start grant funds	1	2	D
g. U.S.D.A. Child Care Food Program funds	1	2	D
h. Individual with Disabilities Act (IDEA) Part B or Part C funds	1	2	D
i. District Title I funds	1	2	D
j. Funds from school district / LEA other than shown in (a) to (i)	1	2	D
k. Program service fees paid by SC Vouchers	1	2	D
l. Municipal, state, or federal gov't contributions other than shown in (a) to (k) (specify): _____	1	2	D

Private Sources

m. Program service fees paid by parents	1	2	D
n. Monetary contributions from sponsoring agency	1	2	D
o. Subsidies/contributions from local community groups (United Way, Kiwanis, etc.)	1	2	D
p. Monetary contributions from parents' employers	1	2	D
q. Special events and fund raising efforts	1	2	D
r. Private donations	1	2	D
s. Investment income	1	2	D
t. Other private revenue source (specify): _____	1	2	D

D. ANNUAL EXPENDITURES FOR MOST RECENT FISCAL YEAR

We would like to know how much your district spent on each major category of direct and indirect expenses to operate CERDEP classrooms in order to calculate your total CERDEP costs. **All expenditures should be for the most recent completed fiscal year** (referenced in A1).

We begin with expenditures specific to the classrooms with CERDEP funding (D1 – D2) or for all 4K classrooms (CERDEP and other 4K classrooms; D3 – D5). Use the table on the next page to record the following:

D1. Wages and Salaries for CERDEP Classroom Staff. In the last completed fiscal year, what was the total expenditure on wages and salaries (before deductions for taxes or employee benefit contributions) for all CERDEP classroom staff including lead teachers, assistant teachers, aids, floaters, or other specialized staff working with children in the classroom? If staff are shared with other non-CERDEP classrooms in your program (e.g., art, music, or physical education teacher), please prorate their wages/salary based on the share of their time working with children in the CERDEP classrooms. Amounts may be recorded in aggregate for D1 or by specific staff or staff categories in the additional rows under D1.

D2. Non-wage Benefits for CERDEP Classroom Staff. What was the program’s total expenditure on non-wage employee benefits for the staff in the CERDEP classrooms who were included in D1? Include only the employer’s contribution. This category includes the types of expenses listed below:

- FICA or equivalent (only the employer’s matching amount; employee’s share should be in D1)
- Unemployment insurance (total federal and state insurance costs)
- Worker’s Compensation
- Disability Insurance (net of any contributions by employees)
- Health/Dental/Vision Insurance (net of any contributions by employees)
- Life Insurance for Staff (net of any contributions by employees)

You may need to estimate this amount based on the ratio of non-wage benefits to salaries for your program as a whole.

D3. Wages and Salaries for 4K Program Staff. In the last completed fiscal year, what was the total expenditure on wages and salaries (before deductions for taxes or employee benefit contributions) for all staff who support the 4K classrooms (CERDEP and other 4K classrooms) including 4K administrative directors, curriculum directors, other 4K administrative staff, 4K food preparation staff, 4K bus or van drivers, and other non-contract 4K employees? Exclude classroom staff already accounted for in D1.

D4. Non-wage Benefits for 4K Program Staff. What was the program’s total expenditure on non-wage employee benefits for the 4K program staff included in D3? *Refer to D2 for the types of non-wage benefits to include. As with D2, you may need to estimate this amount based on the ratio of non-wage benefits to salaries for your program as a whole.*

D5. 4K Staff Education/Training Costs. What was the total expenditure for the year for all 4K teaching and administrative staff for their education or training? Include the following items:

- | | |
|---|---|
| • Fees for workshops or non-college courses | • Offsite fees at college or university |
| • Conferences | • State professional or public training |
| • In-service on site | • Travel allowances (for training only) |

Use this grid to fill in the information requested on the prior page for D1 to D5 for the CERDEP classrooms/4K program at each site in your district or for all CERDEP classrooms/4K programs combined across sites, aggregated to the district level.

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	OR	ALL SITES COMBINED
D1. Wages and salaries for CERDEP classroom staff								
D2. Non-wage benefits for CERDEP classroom staff								
D3. Wages and salaries for all 4K program staff (not in D1)								
D4. Non-wage benefits for all 4K program staff								
D5. All 4K staff education and training								

The next set of expenditures are for the 4K program as a whole at each site, both CERDEP classrooms and any other 4K classrooms. These are expenditures specifically and exclusively for the 4K program at each site that can be readily identified. Please exclude any expenditures you can identify that did not support the 4K classrooms (e.g., those supporting only younger or older children at each site). We will record later any costs that apply site-wide (i.e., school-wide) to all ages, including 4K classrooms, but which cannot be easily segregated to the 4K classrooms (e.g., general administrative staff such as a school principal). **Again, all expenditures should be for the most recent completed fiscal year** (referenced in A1).

Use the table on the next page to record the following:

- D6. 4K Sub-Contractors. What was your total expenditure on 4K contract workers for the year (i.e., people who work for you on a more irregular basis for whom you do not pay benefits)? You may have contracted out work for 4K substitutes or specialized 4K classroom teachers (e.g., music or art).
- D7. 4K Food Service. What was the cost of food services for the 4K classrooms, excluding personnel costs, for the last fiscal year? Do not include donated food or food reimbursements.
- D8. 4K Transportation. What was the cost of transportation services for children in the 4K classrooms, excluding personnel costs, for the last fiscal year?
- D9. 4K Classroom Materials and Supplies. What was the cost of materials and supplies for use in the 4K classrooms for the last fiscal year?
- D10. Other 4K Expenditures. What was the cost of any other expenditures that were exclusively tied to the 4K classrooms for the last fiscal year? Please specify the types of expenditures included. These might include field trips, marketing costs, or other specific 4K expenditures not already listed.

If any of the expenditures for items D6 to D9 cannot be separately identified for 4K classrooms, the second grid on the next page provides a place to record expenditures at the site level in those categories.

Use this grid to fill in the information requested on the prior page for D6 to D10 for the 4K classrooms at each site in your district or for all 4K classrooms combined across sites, aggregated to the district level. If you are not able to separately identify expenditures in any of D6 to D9 for 4K classrooms only, provide the expenditure in that category at the site level in the second grid below.

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	OR	ALL SITES COMBINED
D6. 4K subcontractors								
D7. 4K food service								
D8. 4K transportation								
D9. 4K classroom materials and supplies								
D10. Other 4K expenditures, specify _____ _____ _____								

Use this grid to fill in D6 to D9 at the site level if the expenditures specifically for 4K classrooms is not known. A share of these site-level costs will be allocated to the 4K/CERDEP classrooms.

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	OR	ALL SITES COMBINED
D6S. Site-level subcontractors								
D7S. Site-level food service								
D8S. Site-level transportation								
D9S. Site-level classroom materials and supplies								

The final set of expenditures are for all other site-level expenditures that support 4K classrooms and other classrooms at the same site. These are typically thought of as general overhead expenditures that are shared across all classrooms. This category also includes any district-level overhead expenditures that support all 4K classrooms in the district. We will allocate a portion of these site- and district-level expenditures to the 4K/CERDEP classrooms. **As before, all expenditures should be for the most recent completed fiscal year** (referenced in A1). Use the table on the next page to record the following site-level costs:

D11. Facilities Cash Costs. What were your total facilities costs for the last fiscal year, including the following:

- Rent or mortgage
- Utilities (gas & electric, water, trash removal)
- Cleaning, repair, and maintenance (e.g., janitorial, buildings and grounds, etc.)

D12. Insurance. What was your total cost of insurance last fiscal year? Include all forms of insurance: for the facility, which might include liability, fire, theft, flood, earthquake; vehicle; accident for children, staff or others; child abuse, etc. Do not include health insurance or any insurance programs, which are part of employee benefits.

D13. Other Operating Costs. For site-level costs not already captured in earlier line items, we would like to capture the annual cost of supplies, materials, and equipment. For our purposes we will use the following definitions:

- SUPPLIES are consumables that are used up right away.
- MATERIALS are replaced within a year.
- EQUIPMENT is something that is repaired, lasts more than 1 year and costs over \$100.00.

As part of operating costs we want to estimate the cost of equipment used during the year. The best estimate is the total depreciation costs charged off for the fiscal year.

These other costs may be recorded in aggregate or itemized to reflect categories A to L below. (It is fine if some categories are combined). If only a total is provided, please add a check mark in the final column in the grid below to indicate which types of expenditures are include in the other operating costs.

A.	Non-classroom supplies (e.g., office, facilities, maintenance)	
B.	Non-classroom materials (e.g., items with short lifetime, not depreciated)	
C.	Equipment rental and maintenance	
D.	Depreciation on equipment (e.g., purchased items with longer lifetime, e.g., computer)	
E.	Travel (including business mileage)	
F.	Telephone and postage	
G.	Marketing, advertising, public relations	
H.	Photocopying, printing, publications	
I.	Licensing and fees	
J.	Dues and subscriptions	
K.	Interest payments and bank service charges	
L.	Miscellaneous (specify): _____	

D14. District-Level Dedicated 4K Expenditures. Were there any district-level expenditures specifically to support the 4K program at the CERDEP sites? Include for example, the wages and salaries, as well as benefits, of a district-level 4K program director or other district-level staff who administer the CERDEP/4K program.

Use this grid to fill in the information requested for D11 to D13 for the site-level administrative overhead expenditures for staff and other resources that support 4K classrooms and all other classrooms at each site in your district or for all 4K classrooms combined across sites, aggregated to the district level. Also record any district-level 4K program expenditures in D14.

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	OR	ALL SITES COMBINED
D11. Site-level facilities cost								
D12. Site-level insurance cost								
D13. Other site-level cost TOTAL or itemize below								
A. Non-classroom supplies								
B. Non-classroom materials								
C. Equipment rental and maintenance								
D. Depreciation on equipment								
E. Travel								
F. Telephone and postage								
G. Marketing, advertising, PR								
H. Photocopying, printing, publications								
I. Licensing and fees								
J. Dues and subscriptions								
K. Interest payments / bank fees								
L. Miscellaneous (specify): _____								

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	DISTRICT
D14. District-level 4K program expenditures							

A final set of questions concerns the use of any space, food, supplies/materials, equipment, or labor for the CERDEP classrooms that were donated or otherwise subsidized. **As before, the reference is to resources used in the most recent completed fiscal year (referenced in A1).**

Use the table on the next page to record a yes/no response to the following for each site or for the district as a whole:

- D15. Donated Facilities. In the last fiscal year did the CERDEP classrooms receive any subsidy/donation for facilities-related costs (e.g., rent, utilities, or costs for services such as janitorial, maintenance, repairs)?
- D16. Donated Food: In the last fiscal year did the CERDEP classrooms receive any donated food?
- D17. Donated Supplies and Materials. In the last fiscal year did the CERDEP classrooms receive any donated supplies and materials?
- D18. Donated Equipment. In the last fiscal year did the CERDEP classrooms receive any donated equipment?
- D19. Donated Labor. In the last fiscal year did the CERDEP classrooms make use of regular volunteers in the classroom, both parent and non-parent volunteers (e.g., unpaid interns) who work regularly at least 4 hours per month?

Thank you for all your help! The information you have provided will be invaluable to our study.

Use this grid to fill in the information requested for D15 to D19. For each site, or for all sites combined, indicate if any of the resources for the CERDEP classrooms were donated or otherwise partially or fully subsidized.

	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	OR	ALL SITES COMBINED
D15. Full or partially subsidized facilities cost (rent or utilities)?	YES	YES	YES	YES	YES	YES		YES
	NO	NO	NO	NO	NO	NO		NO
D16. Donated food?	YES	YES	YES	YES	YES	YES		YES
	NO	NO	NO	NO	NO	NO		NO
D17. Donated supplies and materials?	YES	YES	YES	YES	YES	YES		YES
	NO	NO	NO	NO	NO	NO		NO
D18. Donated equipment?	YES	YES	YES	YES	YES	YES		YES
	NO	NO	NO	NO	NO	NO		NO
D19. Donated (volunteer) labor?	YES	YES	YES	YES	YES	YES		YES
	NO	NO	NO	NO	NO	NO		NO

E. FOR INTERVIEWER'S USE ONLY, AFTER COMPLETION OF THE INTERVIEW

E1. On a scale from 1 (poor) to 5 (very good) how do you rate the respondent's articulateness?

Poor				Very Good
1	2	3	4	5

E2. *Assessment of the Quality of Financial Data Collected:* Please evaluate the quality of the expenditure data you have collected. Which of the following assessments best describes the quality?

Poor. The program does not have complete records for the whole fiscal year. in many cases we had to make year end estimates from incomplete monthly estimates and recollection, about which I am not very confident.....1 → GO TO D3

Reasonably Good. For instance, year-end cost summaries were not available, but I collected monthly data from well maintained records and I am reasonably confident about estimates we had to construct from recollection.....2

Very good. The program maintains complete records and most data was collected from these records3

E3. If you answered (1) to E2, circle the subcategories of data which are most problematic. If all were problematic, circle them all.

- Wages and hours of staff..... 1
- Personnel costs 2
- Occupancy costs 3
- Food service costs..... 4
- Operating costs 5
- In-kind donations 6
- Other (specify _____) 8

Provider ID: _____

RAND Corporation
Evaluation of the South Carolina Early Reading
Development and Education Program (CERDEP)
Interview with Private Center-Based Providers

Provider ID: _____

Date of Interview: _____ / _____ / _____
Month Day Year

Interview Start Time: _____ : _____ AM / PM

Interview Stop Time: _____ : _____ AM / PM

Interview Topics and Respondents

This interview will cover the topics listed in the table below. We also indicate potential documentation that may be useful to bring to the interview.

As indicated in the table, the program director may be the most knowledgeable person to respond to the first three topics. For the remaining topics, the best respondent will be the school or program staff member most familiar with program revenue sources and expenditures for the most recent completed fiscal year.

All information listed below should pertain to the most recent completed fiscal year.

Topic	Potential Documentation	Likely Most Knowledgeable Respondent
Program structure (operating hours, days, and weeks per year; ages of children served; number of classrooms)	Program records	Program director
Child enrollment by age and part- or full-time status	Program records	Program director or director of admissions
Staffing structure	Program records	Program director
Sources of income/revenue	Annual audit, annual financial report, tax return	Finance director, bookkeeper
Expenditures for the last completed fiscal year: staff wages and benefits, facilities, education materials, food service, transportation, other materials, supplies, and services	Annual audit, annual financial report, tax return	Finance director, bookkeeper
Donated labor, space, and other materials	Program records	Finance director, bookkeeper

A6. Now I'd like to ask about sponsorship of your program. By sponsorship, we mean an organization that provides governance and/or financial support for your program. Is your program sponsored by a...*[SELECT ONE RESPONSE PER ROW.]*

	YES	NO	DON'T KNOW
a. Public school / Board of Education?	1	2	D
b. Church or religious group?	1	2	D
c. Parochial private school?	1	2	D
d. Non-parochial private school?	1	2	D
e. College or university?	1	2	D
f. Private company or individual?	1	2	D
g. Social service organization or agency? [SPECIFY] _____	1	2	D
h. Non-government community organization (e.g., YMCA)? [SPECIFY] _____	1	2	D
i. State or local government? [SPECIFY] _____	1	2	D
j. Some other type of sponsoring agency? [SPECIFY] _____	1	2	D

A7. Is your program/center accredited by the National Association for the Education of Young Children (NAEYC) or by any other organization (e.g., American Montessori Society [AMS], Association for Montessori Internationale [AMI])? *[SELECT ONE RESPONSE.]*

- YES, ACCREDITED BY (specify): _____ ... 1
- NO ACCREDITATION.....2

A8. Do you have a grant through Head Start (including Early Head Start) or Migrant Head Start? *[SELECT ONE RESPONSE.]*

- YES 1
- NO2

A9. Do you accept children with SC Vouchers (i.e., government assistance) to pay for their child care? *[SELECT ONE RESPONSE.]*

- YES 1
- NO2

A10. How many days of the week is your program regularly **open**?

NUMBER OF DAYS: _____

A11. What hours of the day is your program typically **open** Monday through Friday?

OPENS: _____ AM/PM CLOSES: _____ AM/PM

A12. How many weeks of the year is your program **closed**? (Enter 0 if the program is open 52 weeks a year. Please provide a copy of the school/center calendar with days off.)

NUMBER OF WEEKS: _____

A13. What is the legal maximum number of children which can be present in your program at one time according to your license? That is, what is the legal capacity of your program?

Maximum number of infants (Under 24 months old):

Maximum number of toddlers (24-35 months old):

Maximum number of preschool-age children (3-5 years old):

Maximum number of school-aged (attending K or higher):

*Maximum total number of children:

The following questions refer to the program year that corresponds to your most recent fiscal year.

A14. For the most recent completed fiscal year, how many hours per day did you consider to be (mark "NA" if option is not available):

a. A part day for a typical preschooler? _____ hours

b. A full day for a typical preschooler? _____ hours

c. A maximum day for a typical preschooler? _____ hours

A15. For the most recent completed fiscal year, please indicate the number of classrooms in your program by age group and CERDEP status (using the part, full, and maximum day hours recorded in A14). indicate separately rooms used to operate two or more sessions per day versus rooms used for only one session per day.

Type of classrooms	Number with 1 session per day	Number with 2 sessions per day
4K classrooms with children funded by CERDEP		[cell should be zero]
4K classrooms with children funded by other sources		[cell should be zero]
3K classrooms		
Toddler classrooms		
Infant classrooms		
Mixed age classrooms, specify _____		
Mixed age classrooms, specify _____		
Mixed age classrooms, specify _____		

A16. For the most recent completed fiscal year, please indicate the total enrollment of preschool-age children in your program by age group and CERDEP status (using the part, full, and maximum day hours recorded in A14). If enrollment levels varied across the year, please use the approximate enrollment on or about November 15. If enrollment for an individual child varied across the week, categorize the child by the type of enrollment that applied for the majority of the days during the week.

Type of enrollment	Number of infants to 3-year-olds	Number of 4-year-olds (4K)	Of the 4-year-olds, the number funded by CERDEP
Number of part-day enrollees			[cell should be zero]
Number of full-day enrollees			
Number of extended-day enrollees			
Number of summer enrollees			
Number of extended-year enrollees			

A17. For the most recent completed fiscal year, how many identified children with special needs were enrolled in the CERDEP classrooms? By special needs, we mean children with a physical disability (including hearing or sight problems), mental disabilities, or emotional disabilities. (Identified means identified by parents and center staff, and possibly, but not necessarily, by an outside agency.)

NUMBER OF SPECIAL NEEDS CHILDREN ENROLLED _____

A18. For the most recent completed fiscal year, were there families who were waiting to enroll their four-year-olds but you could not admit at that time? That is, did you have a waiting list of children for your 4K program? *[SELECT ONE RESPONSE.]*

- YES.....1
- NO.....2 → GO TO A20

A19. For the most recent completed fiscal year, what was the maximum number of four-year-old children that were on your waiting list?

MAXIMUM NUMBER OF 4-YEAR-OLD (4K) CHILDREN ON WAITING LIST _____ → GO TO A21

A20. For the most recent completed fiscal year, what was the maximum number of four-year-old slots that were unfilled?

MAXIMUM NUMBER OF 4-YEAR-OLD (4K) SLOTS THAT WERE UNFILLED _____

A21. What are the programs you offer in this program for preschool-age children? By full-day program, we mean programs operating more than 30 hours per week and at least five days per week. *[SELECT ALL THAT APPLY.]*

- CERDEP funded full-day program..... 01
- CERDEP funded extended-day program 02
- CERDEP funded summer program 03
- CERDEP funded extended-year program 04
- District or public school funded full-day program..... 05
- District or public school funded part-day program 06
- Early Head Start / Head Start sponsored full-day program 07
- Early Head Start / Head Start sponsored part-day program..... 08
- Other full-day program (e.g., paid for by parent fees or other subsidies) 09
- Other part-day program (e.g., paid for by parent fees or other subsidies) 10
- Part day extended care before, during, or after the preschool program..... 11
- Summer camp programs for preschoolers 12
- Evening care..... 13
- Weekend care 14
- Sick care 15
- 24-hour care 16
- Bilingual program..... 17
- Other (specify: _____)..... 18

A22. Please indicate whether your program provides each of the services listed below. Not all programs would be expected to provide all of these services. *[SELECT ALL THAT APPLY.]*

- Vision screening 01
- Hearing screening 02
- Dental screening..... 03
- Measurement of height and weight annually04
- Speech screening..... 05
- Speech services 06
- Developmental assessments..... 07
- Counseling services for children and parents (other than routine parent conferences) 08
- Referral for parents to social services such as obtaining food stamps, financial aid, housing, or medical care 09
- Transportation services from home to the program..... 10
- Transportation services from the program to home..... 11
- Meals for children provided by the program 12
- Other (specify): _____.....13

B. STAFFING POLICY, QUALIFICATIONS, AND BENEFITS

In this next section I will ask general questions about your staffing policy and staffing benefits.

Do you use different titles than teacher, assistant teacher or aide, teacher-director, and administrative director for the staff positions in your center?

Teacher: _____

Assistant Teacher/Aide/Instructional Assistant/Floater: _____

Teacher-Director: _____

Administrative Director: _____

Other (Specify _____)

Are there any other regular staff who work directly with children (e.g., music teacher, swim instructor, van drivers, nurse)? If yes, please indicate their titles. *(Include these titles together as 'other' in the following questions.)*

B1. For the following categories of staff, do you provide any in-service training or require continuing education (other than staff meetings), either at or away from the program, beyond what is required by licensing regulations or what is provided by First Steps? *[SELECT ALL THAT APPLY.]*

- Teachers..... 1
- Assistant teachers/aides..... 2
- Teacher-directors 3
- Administrative directors 4
- Other..... 5

B2. Which of the following do you provide for your paid full-time teachers and assistant teachers or aides, and to your part-time employees? *[SELECT ALL THAT APPLY IN EACH ROW.]*

	FULL-TIME TEACHERS	PART-TIME TEACHERS	ASST. TEACHERS
--	-----------------------	-----------------------	-------------------

- | | | | |
|---|----|----|----|
| a. Reduced child care fees | 01 | 02 | 03 |
| b. Compensation for overtime | 01 | 02 | 03 |
| c. At least partially paid retirement plan | 01 | 02 | 03 |
| d. Fully paid health insurance | 01 | 02 | 03 |
| e. Partially paid health insurance | 01 | 02 | 03 |
| f. Paid health insurance for dependents | 01 | 02 | 03 |
| g. At least partially paid dental insurance | 01 | 02 | 03 |
| h. Paid sick leave or personal leave | 01 | 02 | 03 |
| i. Paid vacations | 01 | 02 | 03 |
| j. Paid to attend staff meetings | 01 | 02 | 03 |
| k. Paid to attend professional development | 01 | 02 | 03 |

B3. What is your definition for part-time for defining benefits?

_____ Hrs/Wk = Part time

_____ No distinction for benefits

B4. Now I would like to ask you about staff qualifications for defined as classroom teachers (lead or co-lead teachers).

NUMBER IN CERDEP CLASSROOMS	NUMBER IN OTHER 4K CLASSROOMS
-----------------------------------	-------------------------------------

- a. How many classroom lead/co-lead teachers have a four-year college degree or graduate degree and are certified in early childhood education? _____
- b. How many classroom lead/co-lead teachers have a four-year college degree or graduate degree but are not certified in early childhood education? _____
- c. How many classroom lead/co-lead teachers have at most a two-year associate's degree in early childhood education, child development, or a related field? _____
- d. How many classroom lead/co-lead teachers have none of the above degrees/credentials but have a Child Development Associate (CDA) credential? _____
- e. How many classroom lead/co-lead teachers have none of the above degrees/credentials? _____

CHECK: Total number of teachers in CERDEP and other classrooms should sum to all lead or co-lead teachers.

B5. Do teachers and/or assistant teachers/aides in your program work under a collective bargaining agreement negotiated by a union? [SELECT ONE RESPONSE.]

YES 1

NO 2

C. REVENUE SOURCES FOR MOST RECENT FISCAL YEAR

C1. For the most recent completed fiscal year, please indicate if you had any revenue from each of the following public or private sources for your early childhood program. [*SELECT ONE RESPONSE PER ROW.*]

Public Sources

	YES	NO	DON'T KNOW
a. CERDEP 4K new provider funds for equipment and supplies	1	2	D
b. CERDEP 4K per child reimbursement for instruction	1	2	D
c. CERDEP 4K per child reimbursement for transportation	1	2	D
d. CERDEP 4K funds for program expansion	1	2	D
e. Education Improvement Act Child Development Program (EIA 4K) funds	1	2	D
f. Head Start (including Early Head Start) or Migrant Head Start grant funds	1	2	D
g. U.S.D.A. Child Care Food Program funds	1	2	D
h. Individual with Disabilities Act (IDEA) Part B or Part C funds	1	2	D
i. District Title I funds	1	2	D
j. Funds from school district / LEA other than shown in (a) to (i)	1	2	D
k. Program service fees paid by SC Vouchers	1	2	D
l. Municipal, state, or federal gov't contributions other than shown in (a) to (k) (specify): _____	1	2	D

Private Sources

m. Program service fees paid by parents	1	2	D
n. Monetary contributions from sponsoring agency	1	2	D
o. Subsidies/contributions from local community groups (United Way, Kiwanis, etc.)	1	2	D
p. Monetary contributions from parents' employers	1	2	D
q. Special events and fund raising efforts	1	2	D
r. Private donations	1	2	D
s. Investment income	1	2	D
t. Other private revenue source (specify): _____	1	2	D

D. ANNUAL EXPENDITURES FOR MOST RECENT FISCAL YEAR

We would like to know how much you spent on each major category of expenses in order to calculate your total costs. If you have records of last fiscal year's expenses we can get this information from these reports. This information would be on any kind of annual report summarizing costs such as a cash flow statement, audit, profit and loss statement, purchase or expenditure record, operating cost record, or your current annual budget if it shows expenses for the last fiscal year.

We begin with expenditures specific to the classrooms with CERDEP funding. Use the table below to record the following types of expenditures either for each CERDEP classroom OR for all CERDEP classrooms combined.

D1. Wages and Salaries for CERDEP Classroom Staff. In the last completed fiscal year, what was the total expenditure on wages and salaries (before deductions for taxes or employee benefit contributions) for all CERDEP classrooms staff including lead teachers, assistant teachers, aids, floaters, or other specialized staff working with children in the classroom? If staff are shared with other non-CERDEP classrooms in your program (e.g., art, music, or physical education teacher), please prorate their wages/salary based on the share of their time working with children in the CERDEP classrooms. *Amounts may be recorded in aggregate for D1 or by specific staff or staff categories in the additional rows under D1.*

D2. Non-wage Benefits for CERDEP Classroom Staff: What was the program's total expenditure on non-wage employee benefits for the staff in the CERDEP classrooms who were included in D1? Include only the employer's contribution. *This category includes the types of expenses listed below:*

- *FICA or equivalent (only the employer's matching amount; employee's share should be in D1)*
- *Unemployment insurance (total federal and state insurance costs)*
- *Worker's Compensation*
- *Disability Insurance (net of any contributions by employees)*
- *Health/Dental/Vision Insurance (net of any contributions by employees)*
- *Life Insurance for Staff (net of any contributions by employees)*

You may need to estimate this amount based on the ratio of non-wage benefits to salaries for your program as a whole.

	CERDEP ROOM 1	CERDEP ROOM 2	CERDEP ROOM 3	ALL CERDEP ROOMS
D1. Wages and salaries for classroom staff				
D2. Non-wage benefits for classroom staff				

The remaining expenditures are for the program as a whole. Please exclude any expenditures you can identify that did not support the CERDEP classrooms (e.g., those supporting only younger or older children in your program.) We will allocate a share of these expenditures to the CERDEP classrooms.

- D3. Wages and Salaries for Program-Level Staff. In the last completed fiscal year, what was the total expenditure on wages and salaries (before deductions for taxes or employee benefit contributions) for all program-level staff who support the CERDEP classrooms including administrative directors, other administrative staff, food preparation staff, and other non-contract employees? *Amounts may be recorded in aggregate for D3 or by specific staff or staff categories in the additional rows under D3.*
- D4. Non-wage Benefits for Program-Level Classroom Staff: What was the program’s total expenditure on non-wage employee benefits for the program-level staff included in D3? *Refer to D2 for the types of non-wage benefits to include. As with D2, you may need to estimate this amount based on the ratio of non-wage benefits to salaries for your program as a whole.*
- D5. Staff Education/Training Costs: What was the total expenditure for the year for all teaching staff for their education or training? Include the following items:
- Fees for workshops or non-college courses
 - Conferences
 - In-service on site
 - Offsite fees at college or university
 - State professional or public training
 - Travel allowances (for training only)
- D6. Staff Fee Discounts. If you have staff members whose children are enrolled in the center, please estimate the loss in fee revenue from staff discounts.
- D7. Sub-Contractors: What was your total expenditure on contract workers for the year (i.e., people who work for you on a more irregular basis for whom you do not pay benefits)? You may have contracted out work in the following areas: accounting, legal services, clerical support, or substitutes.

	PROGRAM-LEVEL ANNUAL TOTAL
D3. Wages and salaries for program-level staff	
D4. Non-wage benefits for program-level staff	
D5. Staff education and training costs	
D6. Lost fees from staff discounts for their children	
D7. Subcontractors	

FACILITIES

The next questions deal with your annual costs for space and the facility the program occupies. We are interested in the parts you pay cash for as well as any in-kind donations related to rent, utilities, maintenance, etc.

(Record only the annual expenses below. If the center is part of a larger system, occupancy costs may not be included in the center records, but will have to be collected from the central office.)

D8. Building Cash Costs. What were your total annual facilities costs, including the following: *(Interviewer: If the subcategories listed below are available, record them in the space provided as well as the total. You may have to check school records or you will need to estimate by square footage.)*

Rent or Mortgage *(note if interest and principal are included)* _____

Utilities (Gas & Electric, Water, Trash Removal) _____

Repair and maintenance (such as lawn service, janitorial service, etc.) _____

Other _____

TOTAL YEAR'S OCCUPANCY CASH COSTS:

D9. Occupancy Donations. Do you use donated space or do you receive any kind of financial help on rent which reduces facility costs below (e.g., space and utilities donated) what they would be if you had to pay the market rate? [SELECT ONE RESPONSE.]

YES 1

NO 2 → GO TO D12

D10. Which of the following is true?

a. All space is donated [SELECT ONE RESPONSE.]

YES 1 → GO TO D11

NO 2 → GO TO D10b

b. Part of space is donated [SELECT ONE RESPONSE.]

YES 1

NO 2 → GO TO D12

c. We receive a rent discount of _____ (Square Foot/Year) [\$ or %] → **GO TO D12**

(If they can only give the discount, like 50 percent off, then note that and we should be able to calculate the value in square feet per year knowing what they do pay in rent and the square footage of the facility.)

D11. (If the space is donated) Do you know the annual rental value per square feet of the space? (If the interviewee does not know, don't ask for a guess. We will get an independent estimate. Complete D11a and D11b or D11c.)

a. # SQUARE FEET DONATED _____

AND

b. ESTIMATED RENT PER SQUARE FOOT _____

OR

c. VALUE OF DONATED SPACE (D11a x D11b) _____

D12. If utilities are donated, please estimate the annual value of donated utilities. (Write 0 if there is no donation.)

TOTAL YEAR'S VALUE OF DONATED UTILITIES _____

D13. If any services related to occupancy are donated (e.g., janitorial, lawn care, repairs), please estimate the total annual value.

TOTAL YEAR'S VALUE OF DONATED SERVICES _____

FOOD SERVICE

This section is about costs for serving meals and snacks to the children. (Other food costs including the cost of food for events like fundraising carnivals and board meetings should be calculated and included under operating costs in E17 below. Record only the annual expenses below. If the center is part of a larger system, occupancy costs may not be included in the center records, but will have to be collected from the central office.)

D14. Do you participate in a subsidized food program (e.g., U.S.D.A.)? [SELECT ONE RESPONSE.]

YES 1

NO 2

D15. Please give me the cost of food services, excluding personnel costs, for the last fiscal year. Also, do not include donated food or food reimbursements. (Centers will either have full food service preparation on site, or they will hire a catering service.)

TOTAL YEAR'S FOOD SERVICE COSTS (excluding personnel wages) _____

D16. Value of Donated Food: Was any food donated to the center or did you receive any cash reimbursement for money you spent on food during the last fiscal year? If so, what was the total value of donated food for the year (including value of subsidized food program)?

TOTAL YEAR'S VALUE OF DONATED FOOD _____

OTHER OPERATING COSTS

Finally, we want to collect data on other operating costs such as insurance and the cost of supplies, materials and equipment. For our purposes we will use the following definitions:

- SUPPLIES are consumables that are used up right away.
- MATERIALS are replaced within a year.
- EQUIPMENT is something that is repaired, lasts more than 1 year and costs over \$100.00.

As part of operating costs we want to estimate the cost of equipment used during the year. The best estimate is the total depreciation costs charged off for the fiscal year. If the program charges depreciation on equipment, write the amount in "Depreciation on Equipment" below.

D17. Insurance: What was your total annual cost of insurance last fiscal year? Include all forms of insurance: for the facility, which might include liability, fire, theft, flood, earthquake; vehicle; accident for children, staff or others; child abuse, etc. Do not include health insurance or any insurance programs, which are part of employee benefits.

a. TOTAL YEAR'S INSURANCE COSTS _____

b. TOTAL YEAR'S VALUE OF DONATED INSURANCE _____

D18. What are your operating expenses for the following kinds of items for the past fiscal year?

a.	Office Supplies	
b.	Children's Toys and Materials	
c.	Maintenance supplies	
d.	Equipment Rental and Maintenance	
e.	Non-depreciated equipment (e.g., items with short lifetime: bathroom supplies)	
f.	Depreciation on equipment (e.g., items with longer lifetime: computer)	
g.	Transportation and travel (incl. business mileage)	
h.	Telephone	
i.	Postage	
j.	Marketing, advertising, public relations	
k.	Photocopying, printing, publications	
l.	Licensing and fees	
m.	Dues and subscriptions	
n.	Interest payments and bank service charges	
o.	Miscellaneous (specify): _____	
p.	Total for fiscal year	

D19. Donated Equipment: In the last fiscal year did the center receive any donated equipment? If you did receive such donations, please give me a list of the donated items. For each item, I'd like to know its condition and its replacement value.

TOTAL YEAR'S VALUE OF DONATED EQUIPMENT: _____

D20. Donated Supplies and Materials: In the last fiscal year did your center/FCC home/preschool receive any donated supplies and materials? If so, please list each item. For each, give me an estimate of the market value.

TOTAL YEAR'S VALUE OF DONATED SUPPLIES AND MATERIALS _____

D21. Total Annual Overhead Costs: How much are you charged in overhead costs, as a contribution for the costs of operating your larger system of centers/sites? (This question is relevant only for programs which are part of a large system of centers or are part of a larger sponsoring agency which provides services to the center.)

TOTAL YEAR'S OVERHEAD COSTS _____

D22. Total Annual Volunteer Labor: If your program makes use of regular volunteers in the classroom, both parent and non-parent volunteers (e.g., unpaid interns) who work regularly at least 4 hours per month, please estimate the total annual hours contributed by these volunteers.

TOTAL YEAR'S VOLUNTEER HOURS _____

Provider ID: _____

Thank you for all your help! The information you have provided will be invaluable to our study.

E. FOR INTERVIEWER'S USE ONLY, AFTER COMPLETION OF THE INTERVIEW

E1. On a scale from 1 (poor) to 5 (very good) how do you rate the directors' articulateness?

Poor				Very Good
1	2	3	4	5

E2. *Assessment of the Quality of Financial Data Collected:* Please evaluate the quality of the expenditure data you have collected. Which of the following assessments best describes the quality?

Poor. The program does not have complete records for the whole fiscal year. in many cases we had to make year end estimates from incomplete monthly estimates and recollection, about which I am not very confident.....1

→ GO TO D3

Reasonably Good. For instance, year-end cost summaries were not available, but I collected monthly data from well maintained records and I am reasonably confident about estimates we had to construct from recollection.....2

Very good. The program maintains complete records and most data was collected from these records3

E3. If you answered (1) to D2, circle the subcategories of data which are most problematic. If all were problematic, circle them all.

- Wages and hours of staff..... 1
- Personnel costs 2
- Occupancy costs 3
- Food service costs..... 4
- Operating costs 5
- In-kind donations 6
- Other (specify _____) 8

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The SC Education Oversight Committee is an independent, non-partisan group made up of 18 educators, business persons, and elected leaders. Created in 1998, the committee is dedicated to reporting facts, measuring change, and promoting progress within South Carolina's education system.

ADDITIONAL INFORMATION

If you have questions, please contact the Education Oversight Committee (EOC) staff for additional information. The phone number is 803.734.6148. Also, please visit the EOC website at www.eoc.sc.gov for additional resources.

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