

Colorado Preschool Program

Legislative Report 2021

Submitted to: Colorado General Assembly
By: Colorado Department of Education



COLORADO
Department of Education





**Preschool through
Third Grade (P-3) Office**

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Welcome

The 2019-20 school year presented Colorado educators, educational leaders and policy makers with unprecedented challenges as the world began to respond to a global pandemic. COVID-19 forced an end to in-person learning in March, requiring district leaders, school leaders and teachers to switch to remote learning almost overnight. Families and students had to quickly adapt to new ways of learning and interacting with their local schools. At the writing of this report, all of us continue to adapt to new ways of supporting teaching and learning amidst constantly changing health conditions across the state and country.

It is against this backdrop that the Colorado Department of Education submits its 2021 Colorado Preschool Program (CPP) report to the Colorado General Assembly. Due to the challenges preschool programs face with COVID-19, CDE has worked to create flexibility for local program administrators and program staff to adapt to this new learning environment. For example, CDE streamlined the annual spring reporting requirements for preschool programs and eliminated spring Results Matter assessment requirements. For this reason, the 2021 CPP legislative report includes most but not all of the data readers are used to finding.

Even during this global pandemic, CPP served 23,474 children and their families in Colorado by funding high-quality early learning experiences. In 2019-20, Colorado was able to provide even more preschool opportunities as the state implemented free full-day kindergarten, which freed up over 5,000 ECARE positions to be used for half- or full-day preschool positions. Teachers have worked tirelessly to meet their students' needs during the pandemic, and their innovation has led to new ways of engaging families, often using technology to promote partnering and ongoing connection.

Finally, Colorado showed a strong commitment to preschool by passing Proposition EE in November 2020, providing funding for universal preschool for Colorado's 4-year-olds. CDE is committed to working with the State Board of Education, Governor Polis, legislators, district leaders, and local preschool providers as the state moves forward with design and implementation.

I am so proud of how Colorado's teachers and education leaders have responded to this crisis and admire the dedication and care they continue to demonstrate each and every day as the crisis continues. Thank you for your commitment to a strong start for Colorado's youngest learners!

Respectfully,



Katy Anthes, Ph.D.
Commissioner of Education

A Brief History of CPP

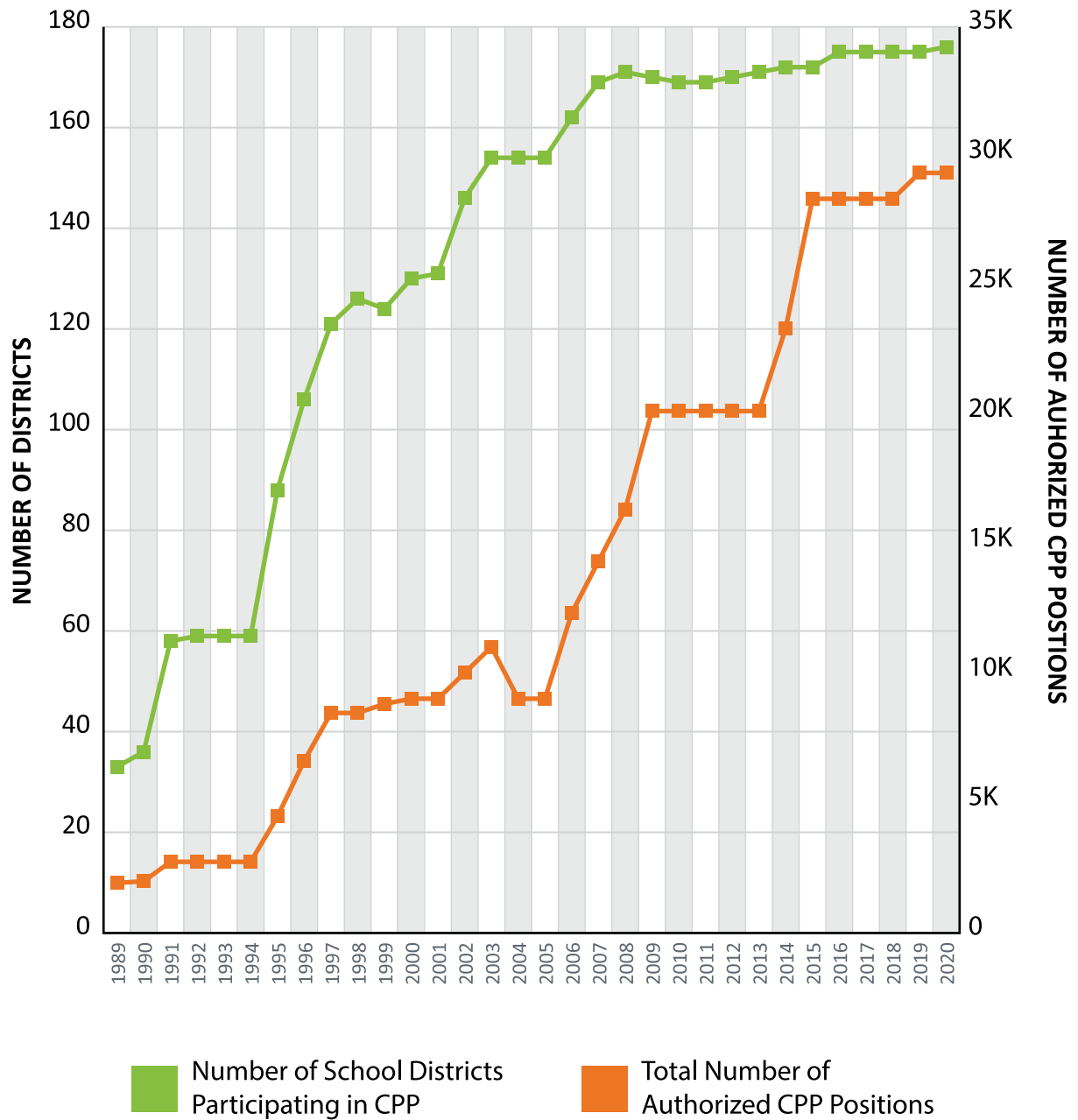
Now in its 32nd year, CPP provides funding for up to 29,360 children annually for preschool education, having served more than 420,000 children since its inception.

The Colorado Preschool Program (CPP) is a state-funded preschool program, created in 1988 by the Colorado General Assembly, that provides high-quality early learning experiences for children who have risk factors that may affect achievement later in school. Administered by the Colorado Department of Education (CDE), children served through CPP attend high-quality early childhood programs located in district-operated preschools, local childcare centers, community-based preschools, or Head Start programs.

CPP has grown over the last three decades, from providing preschool funding for 2,000 positions in 36 districts in its first year, to providing funding for up to 29,360 positions in 176 districts in the 2019-20 school year. Between 1994 and 2002, the program expanded from 2,750 to 11,050 positions with further expansions occurring in the 2000s to create funding for 20,160 children. In 2013, the General Assembly authorized an additional 3,200 positions through the Early Childhood At-Risk Enhancement (ECARE) program. An additional 5,000 ECARE positions were authorized in 2014, and 1,000 more positions were authorized in 2018. Historically, ECARE positions increased the flexibility afforded to districts, allowing CPP-eligible children to be served in either half- or full-day preschool or full-day kindergarten. With the advent of funding for full-day kindergarten for all children in 2019, ECARE positions were diverted to preschool. Consequently, during the 2019-20 school year, CPP provided funding for up to 29,360 preschool positions in 176 school districts. The growth in the number of districts participating in and funding provided by CPP is illustrated in Figure 1.



Figure 1: Growth in CPP Authorized Positions and Participating School Districts, 1989 - 2020



CPP by the Numbers

Quick Reference Statistics (2019-20)

Total Authorized
CPP Positions
29,360

23,474

Total Children
Served in CPP

5,886

Children served with two CPP positions
for full-day services (40.1% of positions/
25.1% of funded children)

176
OUT OF 179
School Districts
Participating in CPP

Total Program
Funding
\$128.1M

Average funding per
CPP Position
($\$5,457.42$ average funding per child)*

\$4,363

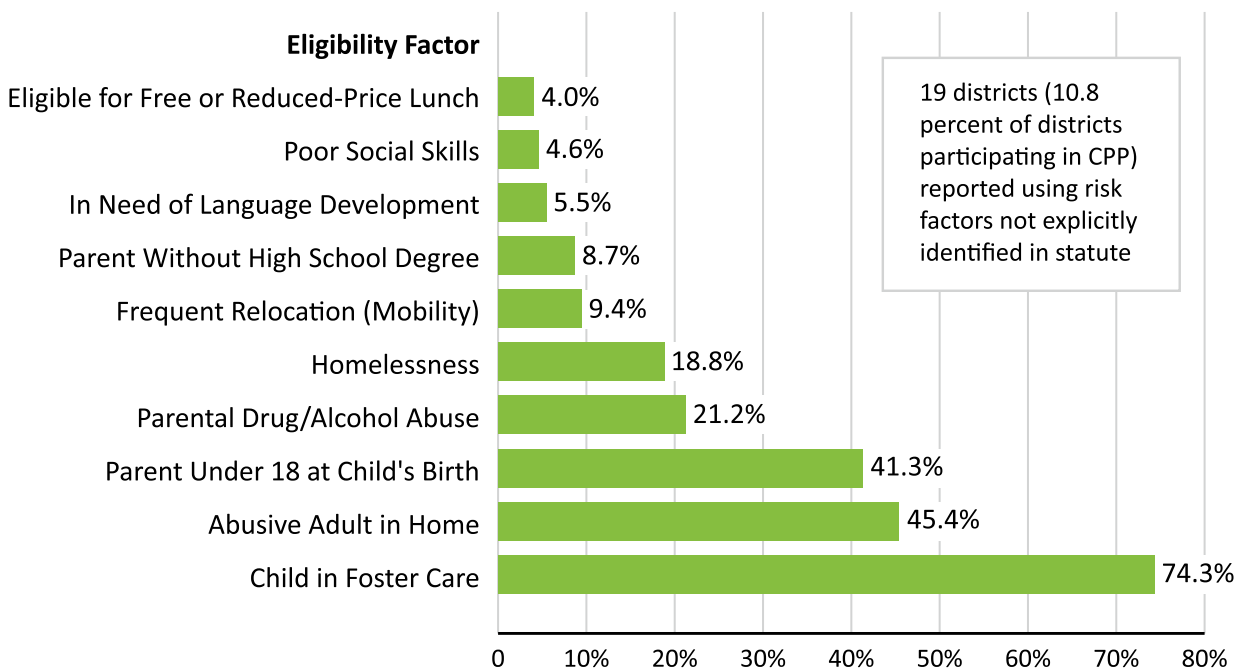
*Funding reported here is the average for one half-day position. However, districts may use two half-day positions to create full-day positions for some children.

CPP Eligibility

Children aged 3 and 4 with certain risk factors are eligible for funding through CPP. The CPP Act identifies 10 risk factors under which children may qualify: 3-year-olds must have at least three risk factors and 4-year-olds must have at least one risk factor. Many participating children, regardless of age, qualify with more than one factor. In Figure 2, each row denotes the percentage of children served in CPP in 2019-20 with each of the risk factors identified in statute. Because children may have more than one risk factor, the percentages total more than 100 percent.

Figure 2: CPP Eligibility Risk Factors

Each line represents the percentage of children served in CPP with that risk factor in 2019-20



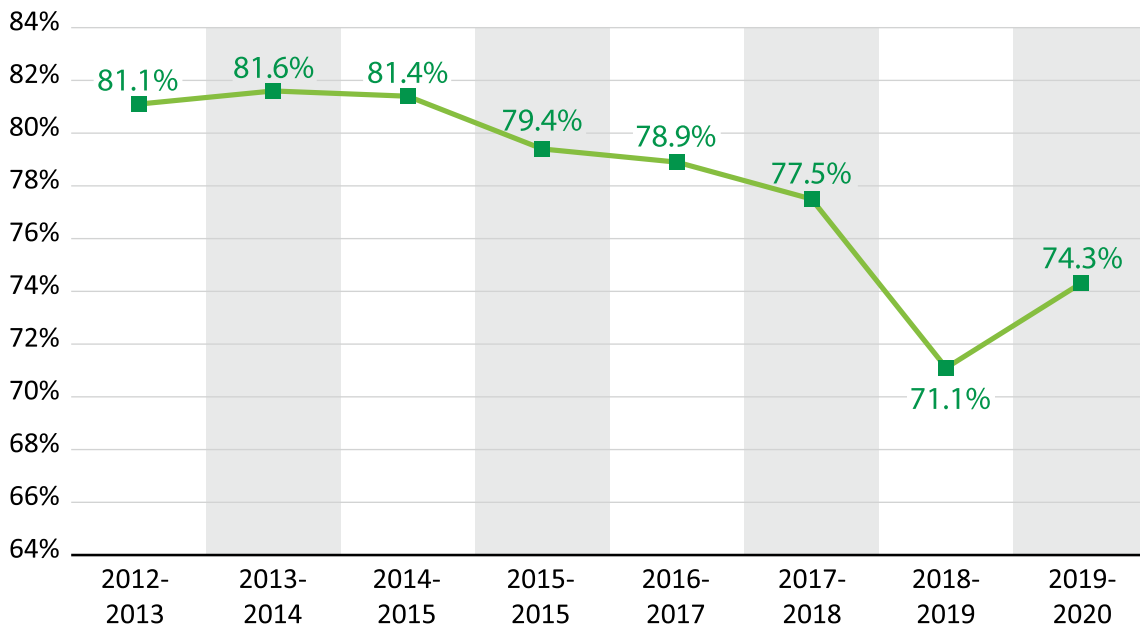
It is the responsibility of the school district to establish a clear policy for determining child eligibility in order to ensure that the program serves preschoolers with the highest need. School districts may expand on the eligibility criteria identified in legislation using research-supported risk factors so long as the expanded criteria are unique to the community and demonstrate how the additional risk factor affects a child's ability to be successful in school.¹ For the 2019-20 school year, 19 districts (10.8 percent of districts participating in CPP) reported using risk factors not explicitly identified in statute, such as parental incarceration.

¹ C.R.S. § 22-28-105(2)(i)

Due to the impact of COVID-19 on the reporting process, not every school district was able to report the number of children qualifying for CPP based on each risk factor. Four school districts, representing 2.8 percent of all children funded through CPP, were unable to report the data used in this figure.

The percentage of children qualifying for CPP based on their eligibility for free- or reduced- priced lunch (FRL) in the 2019-20 school year rose approximately 3 percent from the 2018-19 school year. The 2019-20 school year marks the first time the percentage of children qualifying based on FRL has increased since the 2013-14 school year (Figure 3).²

Figure 3: Trend in CPP Children Qualifying for CPP Based on FRL Eligibility in 2019-20



² Similar to Figure 2, the onset of COVID-19 impacted the reporting process employed by the department to gather the data necessary to complete this figure. While eligibility data is gathered and established each fall, districts' inability to report these data to the department related more to issues of access to these data in spring 2020. Four school districts, representing 2.8 percent of all children enrolled in CPP, were unable to report the data used in this figure.

Estimating Unmet Need for Half-Day CPP among Eligible Children

CDE estimates there are 65,933 3- and 4-year-olds eligible for CPP in Colorado. Currently, there are 29,360 CPP half-day positions available for 3- and 4-year-olds. Using population estimates from school district enrollment counts and eligibility data from CPP district annual reports, CDE estimates that 36,573 of 3- and 4-year-olds potentially eligible for CPP were not enrolled in the program (55.5 percent of the total estimated eligible 3- and 4-year-olds).³

Since some children have greater needs, current statute allows some CPP positions to be combined to fund full-day preschool services. In 2019-20, 11,772 positions were combined in this way to serve 5,886 children for a total of 23,474 children served by CPP. Decisions about whether to combine two CPP positions are locally determined and fluctuate from year to year, although a 5 percent overall cap exists on the number of traditional CPP (non-ECARE) that can be used in this manner.

Head Start is another major source of preschool funding for many Colorado children. In 2018-19, Head Start served 8,516 3- and 4-year-olds in Colorado. Subtracting this figure from 36,573—the overall estimate of unmet need—leaves 28,057 potentially eligible children not served by CPP or Head Start.

Table 1 displays key figures used to estimate unmet need for CPP among eligible children.

Table 1: Key Figures in Estimating Unmet Need for Half-Day CPP among Eligible Children in 2019-20

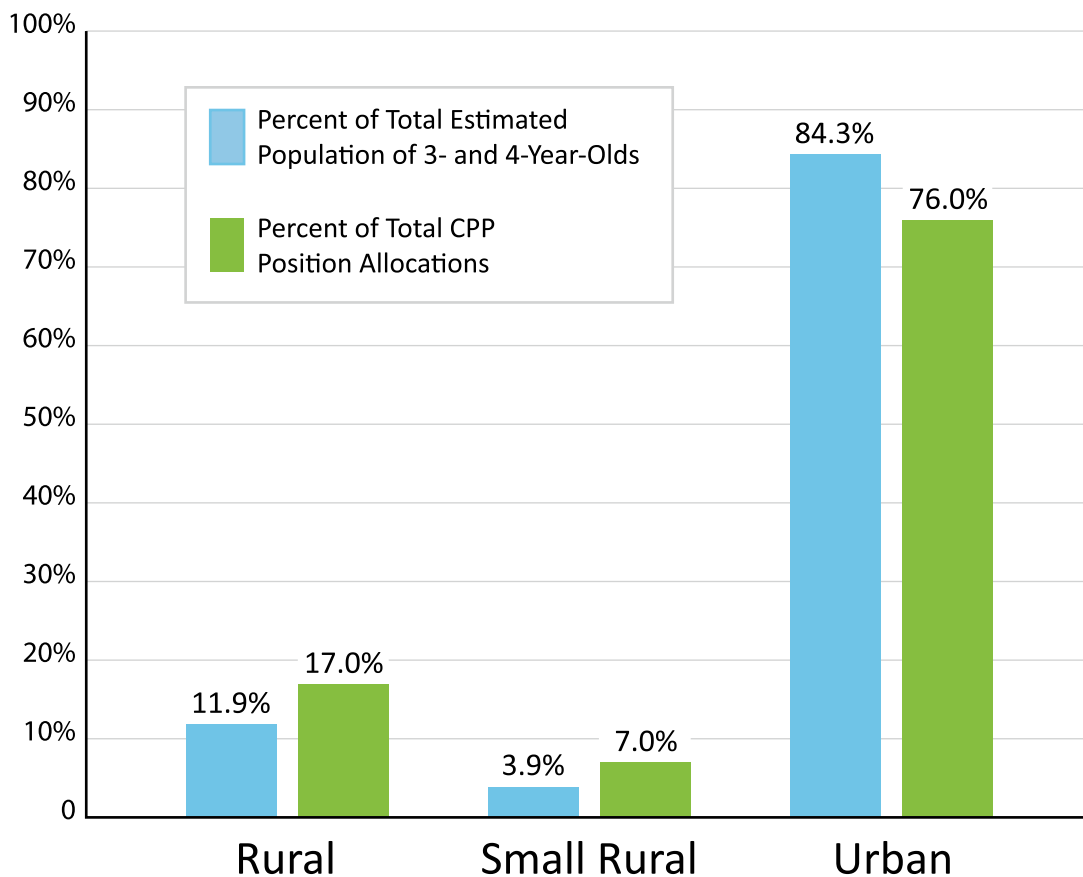
65,933	Estimated number of CPP-eligible 3- and 4-year olds in Colorado
32,967	Estimated number of CPP-eligible 4-year-olds in Colorado
29,360	CPP half-day positions available for 3- and 4-year-olds
23,474	Number of children served by CPP in 2019-20
6,936	Number of children younger than 4 served by CPP in 2019-20
11,772	Number of CPP positions combined to serve children full-day in 2019-20
5,886	Number of children receiving two CPP positions in 2019-20
8,516	Number of 3 and 4-year-olds recently served in Head Start in Colorado

³ Not all of Colorado's school districts keep records of eligible children they are unable to serve. The figure assumes all CPP positions are used for half-day services. It does not account for children receiving full-day services by combining two CPP positions. In 2019-20, 5,886 children used two CPP positions (11,772 total positions). Additionally, 3-year-olds must have three risk factors in order to qualify for CPP. Therefore, relatively fewer 3-year-olds are eligible for CPP compared to 4-year-olds. CDE cannot estimate this difference, although it would bring the overall estimate down. Some 3- and 4-year-olds included in the estimates of unmet need for CPP may already be receiving state-preschool by qualifying for special education services.

Enrollment by Urban/Rural Areas

CPP serves a greater proportion of children in rural and small rural areas relative to total population than in urban areas. CDE estimates that 12 percent of the 3- and 4-year-olds in Colorado reside in rural school districts, yet 17 percent of the CPP positions are allocated to rural districts. Similarly, 4 percent of the population is estimated to reside in small rural districts, yet 7 percent of the positions are allocated to small rural districts.⁷ Conversely, an estimated 84 percent of the population resides in urban districts, and 76 percent of CPP positions are allocated to urban districts.⁸

Figure 4: CPP Position Allocation Compared to Estimated Population of 3- and 4-Year-Olds in 2019-20

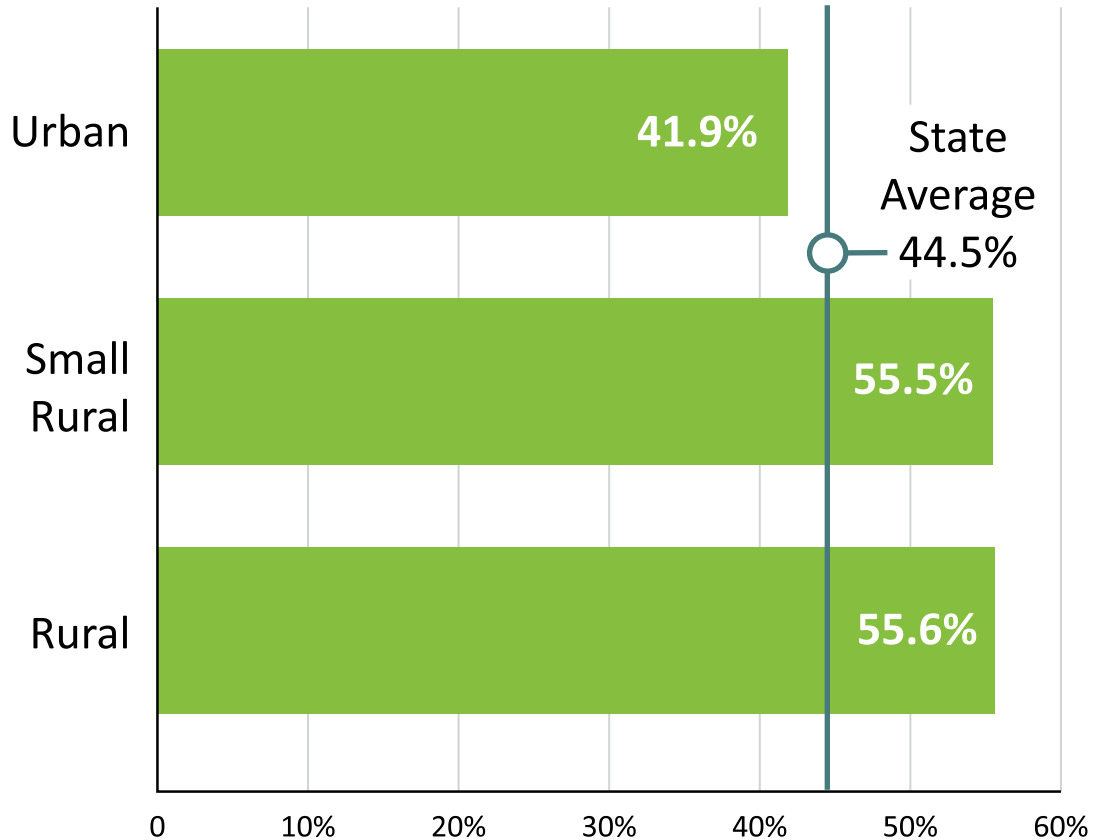


⁷ Please see the following link for CDE’s definitions of rural, small rural, and urban districts: <http://www.cde.state.co.us/ruraledcouncil>.

⁸ The estimate for the 3- and 4-year-old population resulted from taking the highest count of either the previous year’s kindergarten count, by school district, or the average of the last three years of kindergarten enrollment, by school district. This was then aggregated across the state.

As displayed in Figure 5, compared to the state average of CPP eligibility, CPP serves a higher proportion of potentially eligible children in small rural and rural districts than urban districts. The estimated state average of potentially eligible 3- and 4-year-olds is 44.5 percent. However, both small rural and rural districts of the state serve approximately 56 percent of eligible children whereas urban areas serve approximately 42 percent of eligible children. This is primarily due to the need to allocate a minimum number of CPP positions to each participating district in order to generate enough revenue to fund teacher salaries and run the program, which can raise the proportion of the eligible population served in small rural and rural districts compared to urban districts.

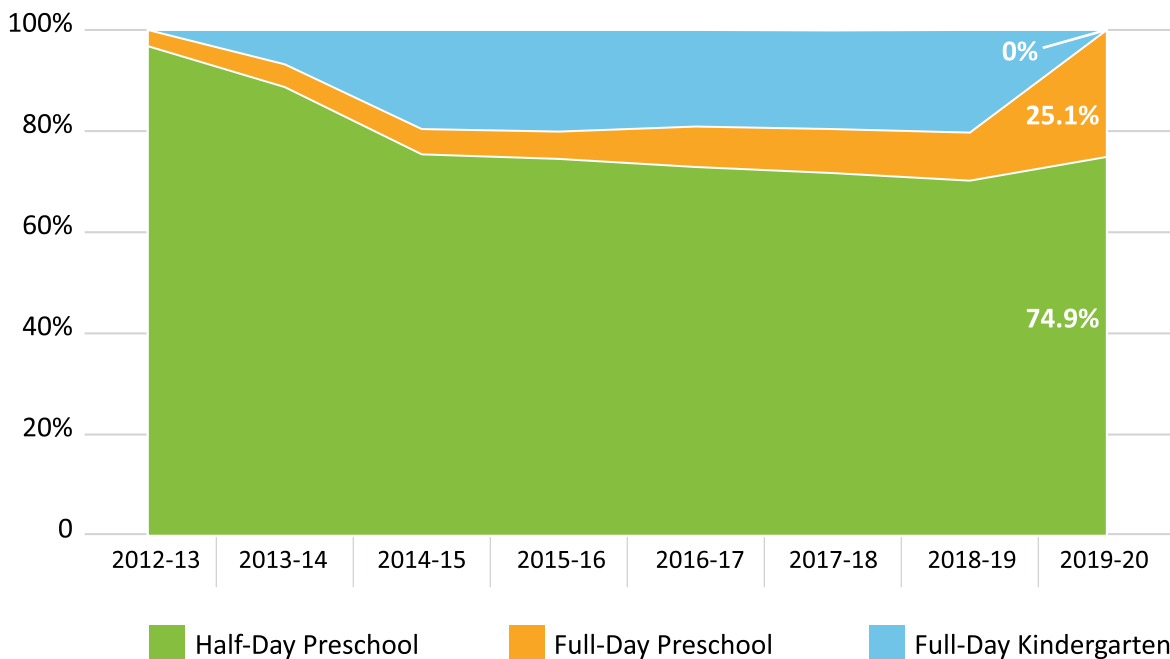
Figure 5: Estimated Percent of Potentially Eligible 3- and 4-Year-Olds Served by CPP in 2019-20



Enrollment by Length of Day

With the implementation of funding for full-day kindergarten in the fall of 2019, CPP ECARE positions previously used for kindergarten were able to be reallocated to preschool. The additional preschool positions were used to fund both half-day and full-day preschool. Proportions of both types of positions increased, with the proportion of children receiving full-day preschool showing the greatest rise. In 2018-19, 9.5 percent of children in CPP received full-day preschool; this percentage rose by nearly 15 percentage points to 25.1 percent in 2019-20. The proportion of children receiving half-day preschool increased modestly from 70.2 percent in 2018-19 to 74.9 percent in 2019-20 (Figure 6).

Figure 6: Enrollment by Length of Day in 2019-20

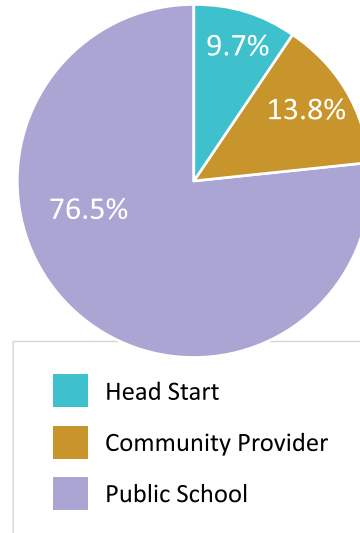


These statistics support the trend of districts serving relatively more children in full-day programs using two CPP/ECARE positions compared to several years ago. This increase demonstrates the level of service requested by families to benefit from publicly funded programming. Districts report that some families with eligible children decline services because they are only able to access part-day and part-year programming when their need is for full-time programs. Full-day programming opportunities offered by school districts, and by extension, through local community providers and Head Start programs, increase continuity of care and access to service and instructional time for children most at risk of academic challenges.

Enrollment by Setting

The CPP Act recognizes the significant value of partnering with community-based childcare agencies, Head Start programs, and other community providers. As of the 2019-20 school year, 23.5 percent of all children in CPP were served in non-public school programs under agreements with districts. In the 2019-20 school year, preschool enrollment by setting changed by 1 percent or less for each setting when compared to 2018-19 preschool-only data. CDE is working with districts to increase the use of community providers and Head Start programs by identifying and removing barriers to these partnerships.

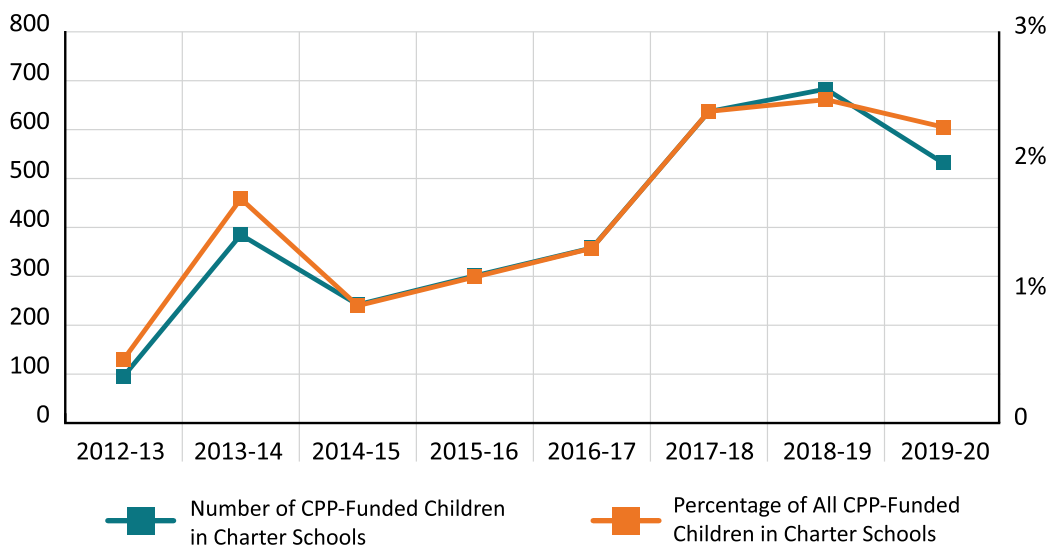
Figure 7: CPP/ECARE Enrollment by Setting in 2019-20



Charter School Participation in CPP

Charter schools continue to serve children funded through CPP. In the 2019-20 school year, approximately 2.4 percent of CPP-funded children received preschool education services across 21 charter schools. While this percentage has steadily grown over time, the 2019-20 school year marked the first decrease in the last five years. This slight drop is due to the absence of ECARE-funded kindergarteners in the 2019-20 school year.

Figure 8: Growth in Charter School Participation in CPP from 2012 to 2020



Colorado Shines and CPP

High Quality Preschool and the Colorado Shines Quality Rating and Improvement System

All preschool programs in Colorado must be licensed through the Colorado Department of Human Services (CDHS). The childcare licensure process merges a basic compliance model with a more robust quality rating system called Colorado Shines. Colorado Shines consists of five levels, beginning with a Level 1 rating and ending with the highest quality rating at a Level 5. At minimum, a Level 1 rating is required for programs serving children funded through CPP, as this demonstrates that a program is currently licensed with the state of Colorado and meets basic health and safety regulations.

To determine the level of quality of early care and education programs, Colorado Shines evaluates how each organization:



**COLORADO
SHINES**

**START EARLY
START STRONG
QUALITY EARLY LEARNING**

1

Supports children's health and safety

2

Ensures their early childhood professionals are well-trained, effective, and appropriately compensated

3

Provides a supportive, play-based learning environment that increases children's skills in all areas of development, with a focus on social and emotional learning for future school and life success

4

Helps parents become partners in their child's learning

5

Demonstrates strong leadership and business practices



Following the Colorado Shines ratings and CLASS Assessments in Fall and Winter of 2019, Quality Improvement (QIP) plans were reviewed as well as the Family Survey results. Gathering and analyzing the information showed that we still have need to improve in two areas: Family Partnerships and the CLASS Instructional Domain. From the information, school sites as well as Meadowood Child Development Center implemented additional professional development in both areas.



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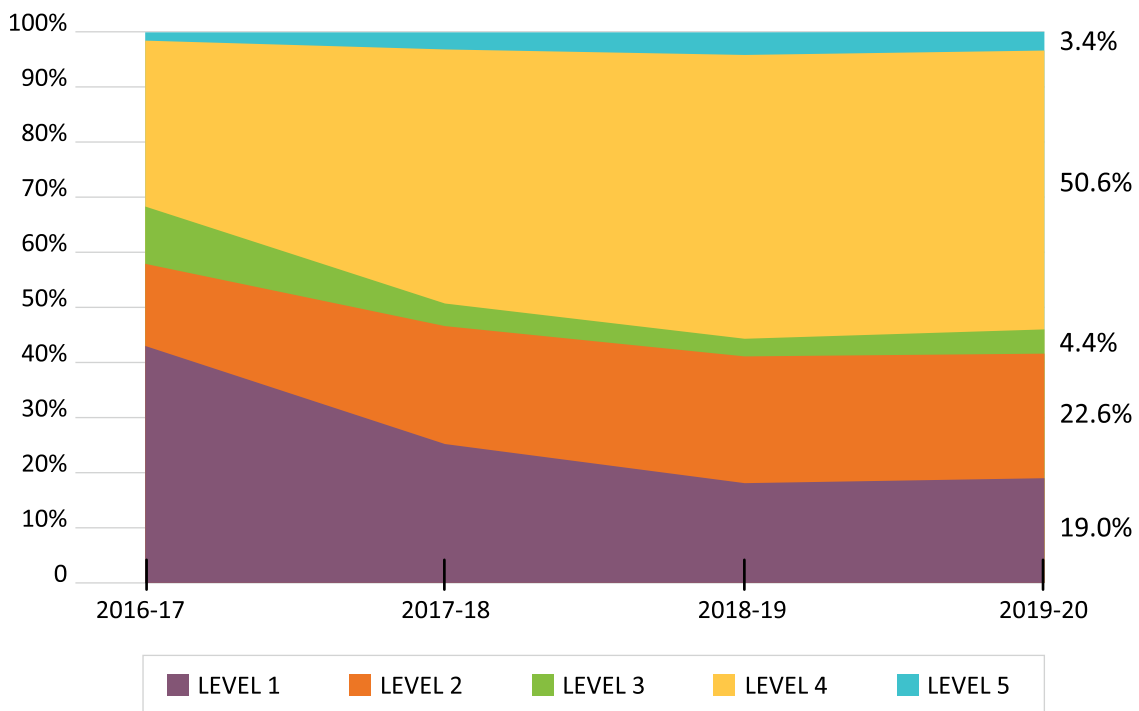


Each program enrolled in Colorado Shines has flexibility for its progress toward higher quality ratings and can set the pace at which it advances through the ratings.

One way for district operated programs to achieve higher quality ratings is through the alternative pathway option. In 2016, CDE worked with CDHS to create an alternative pathway to facilitate and support district participation. The development of the alternative pathway streamlines the rating process by allowing districts to submit documentation for all buildings where preschool programs are operated, including quality assurance measures for classroom observations that meet Colorado Shines criteria. The development of this option eliminated the need for each individual program to submit their own documentation, saving time and resources. Programs approved through this option are eligible for at least a Level 3 rating.

Recent Colorado Shines data show that proportionally more children in CPP are being served in highly rated programs – programs rated at a Level 3, Level 4, or Level 5 – compared to a few years ago (Figure 9). Since 2016-17, the percentage of children in CPP in highly rated programs grew from approximately 42 percent to approximately 58 percent in 2019-20. During this same timeframe, the percentage of children in CPP being served in a Level 2 rated program grew from approximately 15 percent to 22.6 percent. Further, the percentage of children served in a Level 1 rated program dropped by half, from 43 percent in 2016-17 to 19 percent in 2019-20.

Figure 9: Percentage of Children in CPP among Colorado Shines-rated Programs





There has been an upward trend in recent years in the number of CPP programs receiving a Level 3 rating or higher. In 2016-17, approximately a third of the programs serving CPP were rated at a Level 3 or higher (37.4 percent). Over the past three years, this percentage has risen to nearly 50 percent (49.6 percent). Likewise, programs rated at a Level 2 increased from 21.4 percent in 2016-17 to 28.1 percent in 2019-20, and the percentage of programs rated at a Level 1 decreased substantially, from approximately 41 percent to 22 percent in 2019-20. This is demonstrated in Figure 10.

Figure 10: Colorado Shines Ratings by Program (of the Programs Serving CPP) from 2016 to 2020

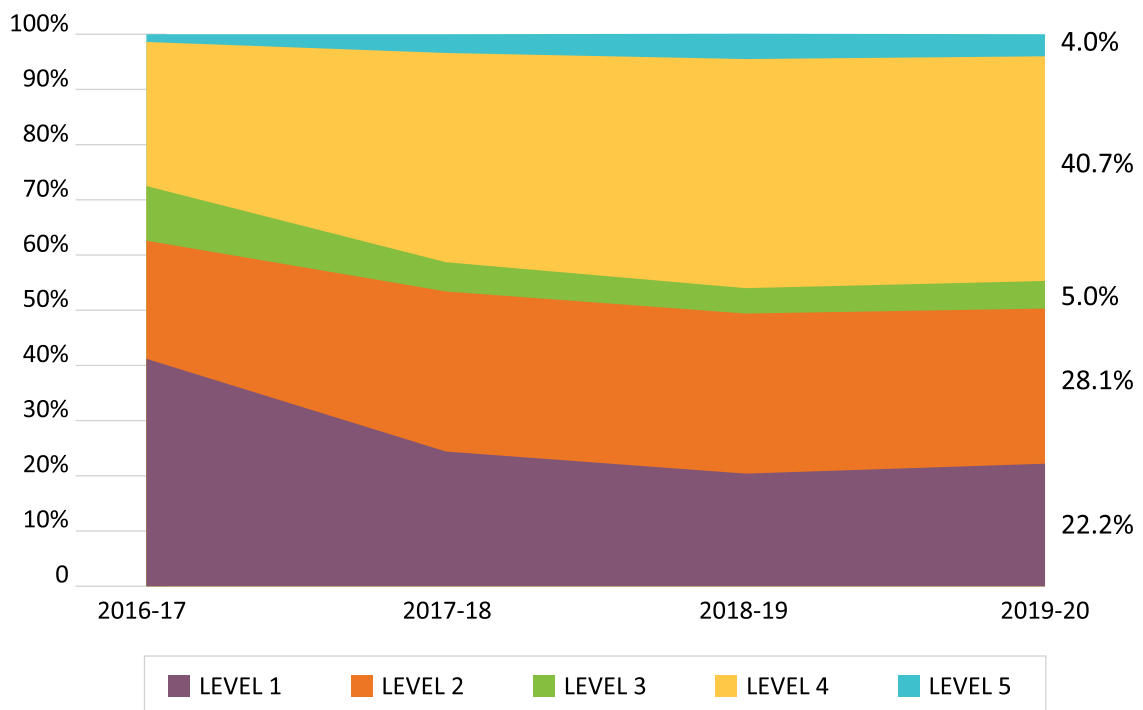
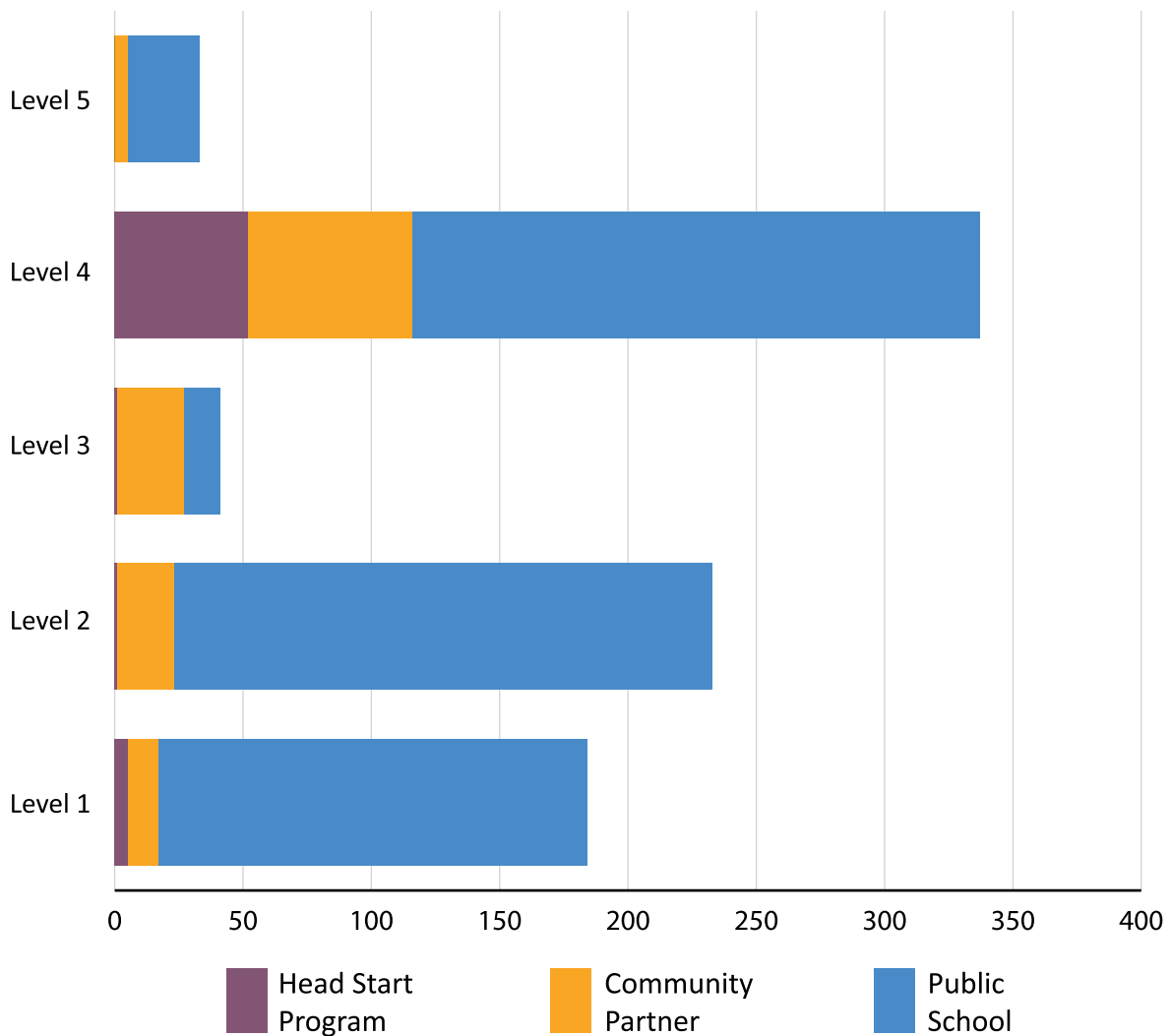


Figure 11 shows the number of public schools, community providers, and Head Start programs providing state-funded preschool to children in CPP at each Colorado Shines level. Public schools have the greatest number of programs serving CPP children (640 programs), with the greatest number of programs at a Level 4 rating (221 programs). Likewise, most community provider programs as well as Head Start programs are also rated at a Level 4 (64 programs and 59 programs, respectively).

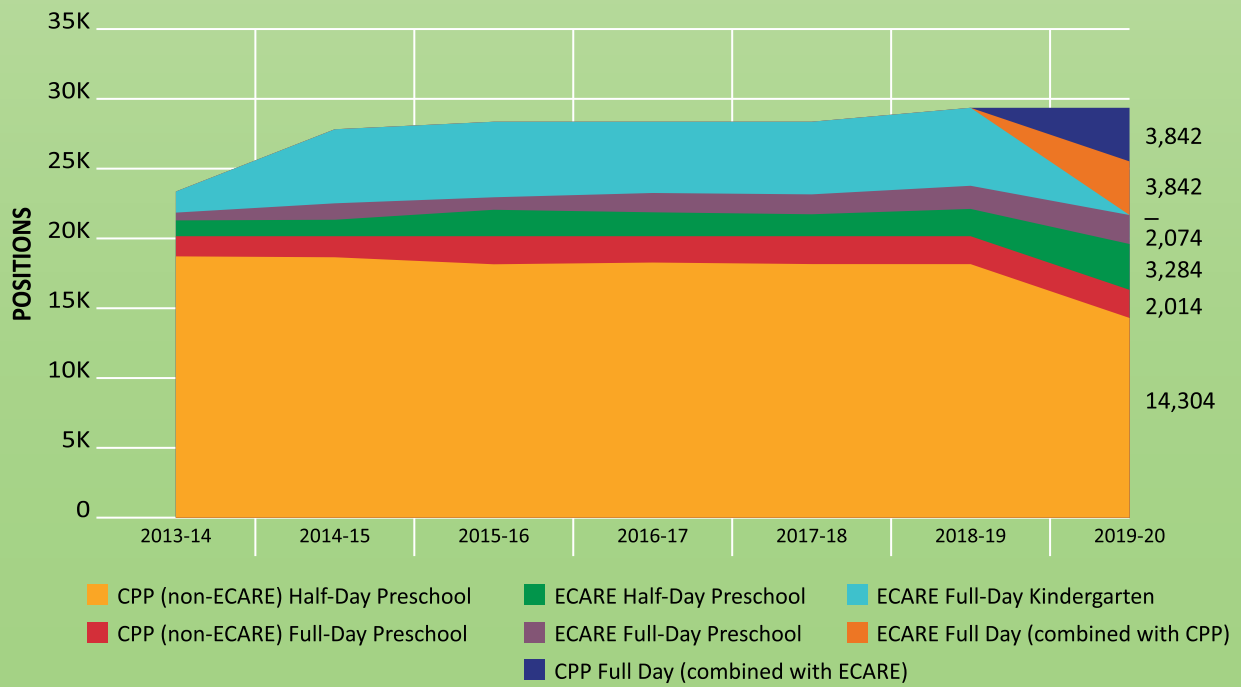
Figure 11: Colorado Shines Ratings by Setting among School Serving Children in CPP in 2019-20



ECARE Positions

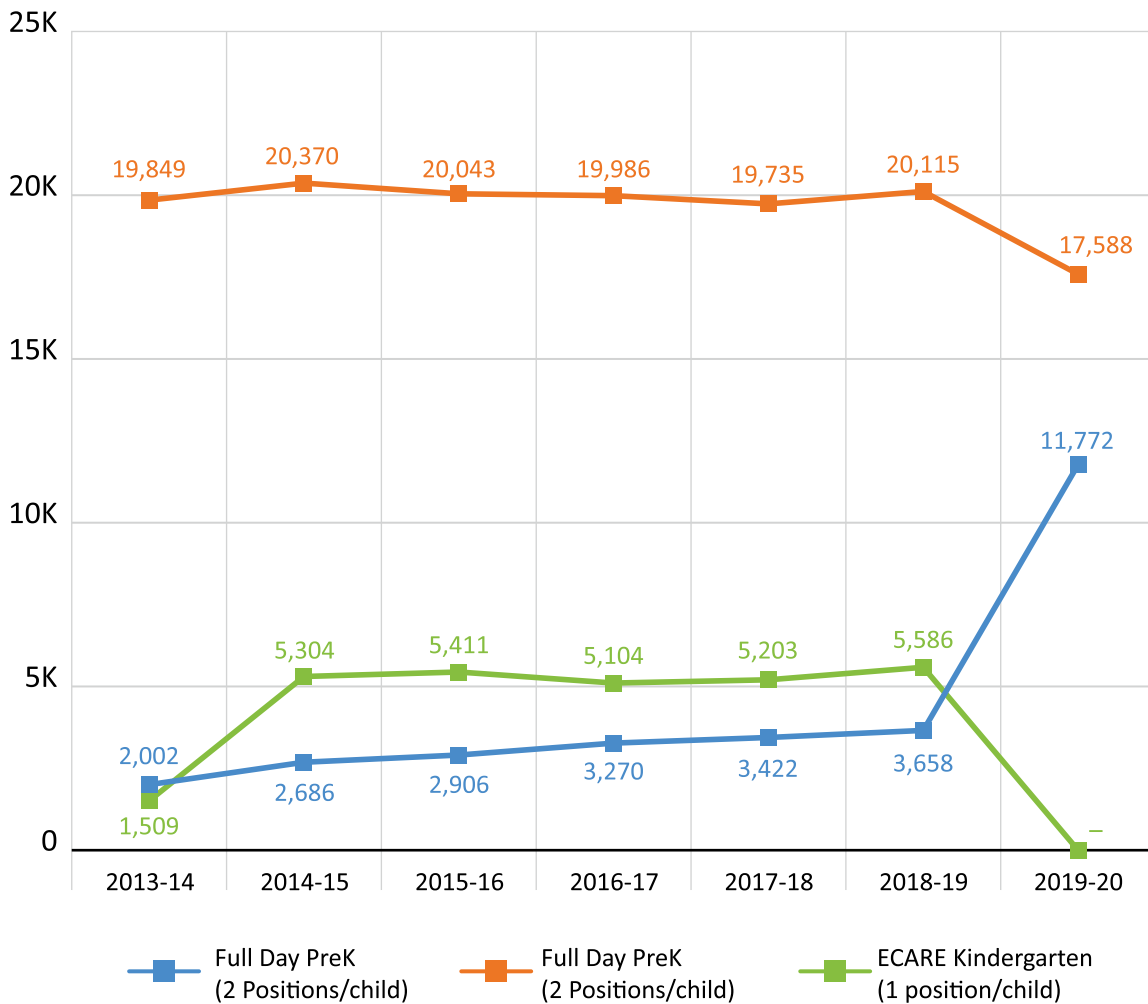
One unique piece of the CPP Act is the creation and utilization of the Early Childhood At-Risk Enhancement (ECARE) positions. These positions have offered districts the greatest flexibility in serving CPP-eligible children through either half-day or full-day services. Prior to the 2019-20 school year, these positions were also authorized to provide full-day kindergarten for eligible children. As shown in Figure 12, school districts had historically chosen to use the majority of ECARE positions for full-day kindergarten. As a result of the Colorado legislature fully funding kindergarten for all children in the 2019-20 school year, all ECARE positions were diverted to preschool and no longer available for use in kindergarten.

Figure 12: Traditional CPP versus ECARE Position Utilization Over Time



As a result of this policy change, all other appropriate uses of ECARE positions saw an increase in the number of positions, except for CPP half-day preschool. The number of ECARE positions used to fund half-day services in preschool decreased from 18,160 positions in 2018-19 to 14,304 positions in 2019-20. However, as demonstrated in Figure 13, the number of positions used for full-day preschool tripled from 3,658 positions in 2018-19 to 11,772 positions in 2019-20.

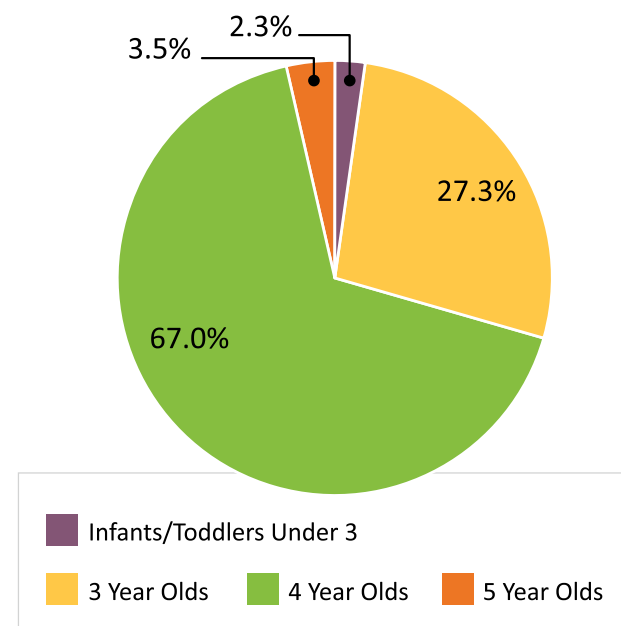
Figure 13: Half-Day, Full-Day, and Kindergarten ECARE Position Usage in 2019-20



The implementation of full-day kindergarten resulted in a shift in the proportion of ages served in CPP. In 2018-19, 5-year-old kindergarteners receiving ECARE positions represented 20.3 percent of CPP-funded children (Figure 14). As one might expect, the absence of kindergarteners funded through ECARE in 2019-20 caused the relative proportions of all other age groups to increase when compared to the 2018-19 school year.



Figure 14: CPP Enrollment by Age in 2019-20 ^{9 10 11}



The gender distribution of children served by CPP is almost split evenly. In 2019-20, 50.5 percent of children served by were female, and 49.5 percent were male. This is the same distribution as seen in 2018-19.

Figure 15: CPP Enrollment by Gender in 2019-20



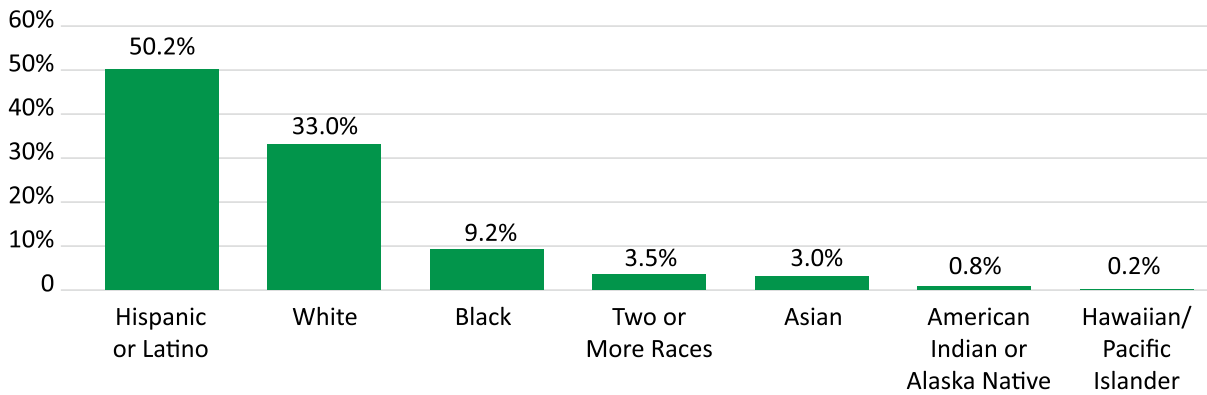
⁹ Some districts are able to serve younger children through a waiver granted at the initiation of the Colorado Preschool Program. This option is no longer statutorily available to other districts.

¹⁰ Eligible 3-year-olds must reach the age of 3 on or before the school district’s kindergarten age cutoff date, which can be no later than October 1. Eligible 4-year-olds must be age-eligible for kindergarten the following year and reach 4 on or before October 1. Eligible five-year-olds must be age-eligible for kindergarten the following year.

¹¹ Five-year-olds whom are not age-eligible for kindergarten and are participating as a preschooler in CPP.

Approximately half (50.2 percent) of all children served by CPP in 2019-20 were Hispanic or Latino. A third (33.0 percent) of children were White. The remaining races accounted for 16.8 percent of CPP funded children. The distribution of racial and ethnic groups served by CPP has remained fairly consistent over time (Figure 16).

Figure 16: CPP Enrollment by Race/Ethnicity in 2019-20



As CDE continues to pursue equity and opportunity for all students, one benchmark of progress is equitable representation in programs. While many characteristics factor into enrollment for CPP, the most prevalent risk factor is free and reduced lunch eligibility. The table below shows that while some discrepancies still exist, CPP is fairly representative of general enrollment statewide, when limiting general enrollment to students who are eligible for free and reduced lunch. Discrepancies may be explained by the requirement for additional legislated risk factors for 3-year-olds participating in CPP.

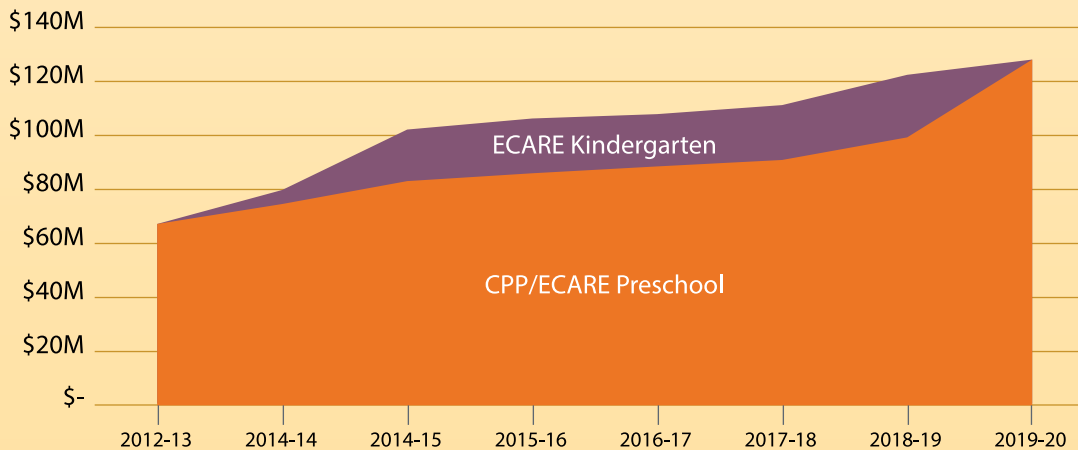
Table 2: Percentage of Enrollment, by Race and Ethnicity in 2019-20

Race/Ethnicity	Percentage of Kindergarten through 12th Grade Enrollment, by Race/Ethnicity Statewide, Limited to Students Eligible for Free or Reduced Lunch	Percentage of CPP Enrollment, by Race/Ethnicity
American Indian or Alaskan Native	1.0%	0.8%
Asian	2.4%	3.0%
Black or African American	7.8%	9.2%
Hispanic or Latino	56.0%	50.2%
Native Hawaiian or Other Pacific Islander	0.4%	0.2%
Two or More Races	3.8%	3.5%
White	28.6%	33.0%
Total	100%	100%

Funding for CPP

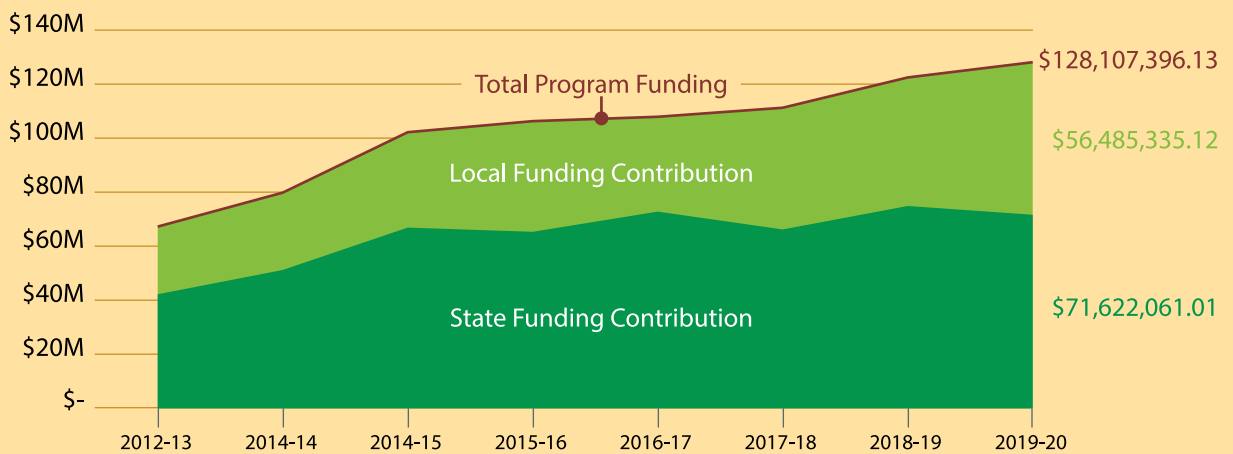
In 2019-20, the General Assembly allocated \$128,107,396 to CPP – an increase of approximately 90 percent since 2012-13. The program served 23,474 children¹² in 2019-20 resulting in average state funding per child of \$5,457.42 (or \$4,363 per CPP position). Because full-day kindergarten was funded by the legislature in 2019-20, all of the total program funding for 2019-20 went toward preschool. Figure 17 illustrates total program funding for CPP from the 2012-13 school year.

Figure 17: Total CPP Program Funding in 2019-20



Another way to view funding for CPP is the share of state and local dollars. The state contributes 55.9 percent to the total program funding for CPP. The local sources of funding come from property taxes and specific ownership taxes, such as vehicle registration. Figure 18 displays these data.

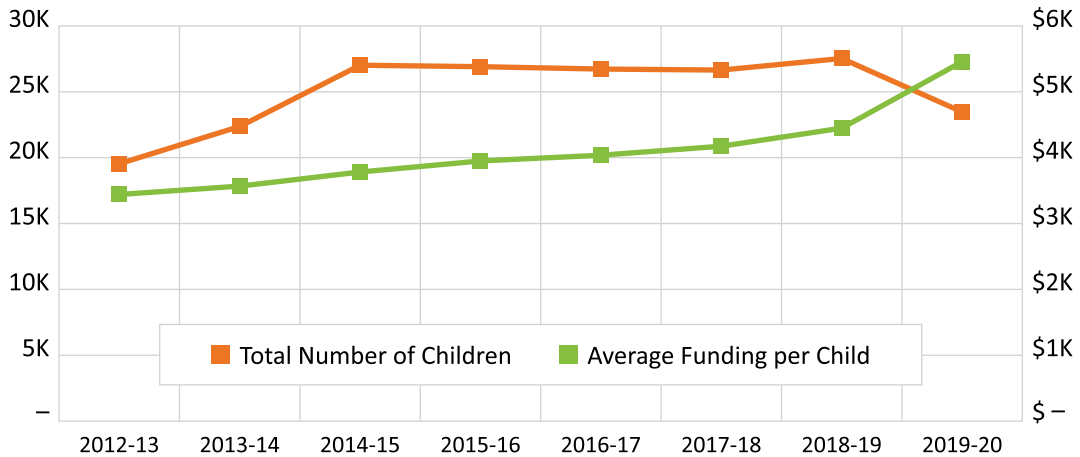
Figure 18: State and Local Contributions to Total Program Funding for CPP from 2012 to 2020



¹² Two half-day CPP positions may be used to fund a full day of preschool services for some children, resulting in a lower count than the number of authorized positions (23,474 children versus 29,360 positions).

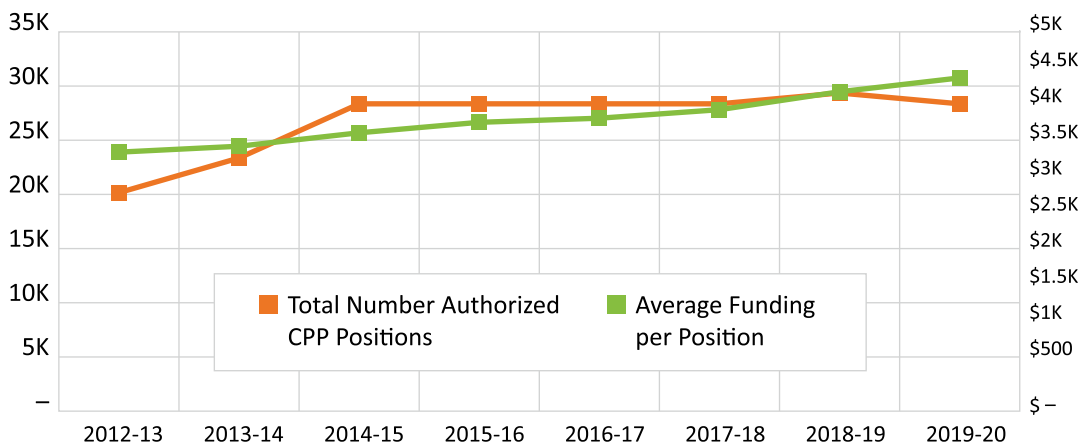
The 2019-20 school year saw the first dip in the number of children served since 2012-13. The number of children served grew steadily between 2012-13 and 2014-15 before leveling out for a number of years. The dip is due to a higher percentage of children being served through two half-day positions, which creates a full-day position when combined. Funding per child grew consistently from 2012-13 through 2019-20.

Figure 19: Number of Children in CPP and Funding per Child from 2012 to 2020



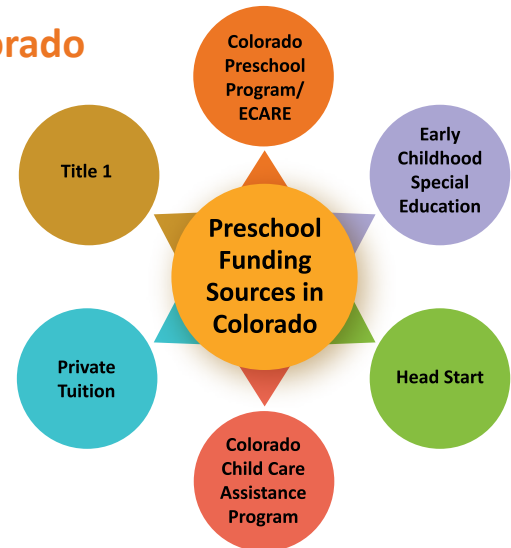
The number of positions rose between 2012-13 and 2014-15 before leveling off for the last several years. Funding per position, however, has continued to increase.

Figure 20: Number of Authorized CPP Positions and Funding per Position from 2012 to 2020



Combining Preschool Funding Resources in Colorado

To fund preschool programs in Colorado, districts must use a variety of sources in addition to CPP. CPP funding is not intended to provide universal preschool, but is intended to provide high-quality, early learning experiences for children most at risk for later academic challenges. Other funding streams such as early childhood special education funding (including Exceptional Children’s Education Act, Individuals with Disabilities Education Act Part B and Section 619 funding), Head Start, Colorado Child Care Assistance Program, Title I, general funds, tuition, and other sources can to be used to equitably serve the children represented in preschool classrooms administered by school districts.



Most Colorado preschoolers are served in blended classrooms—that is, classrooms of children with greater needs (e.g., children with disabilities or from low-income families) alongside peers who may have families that pay tuition. A chart with more information on the various funding sources used in programs can be found at: <http://www.cde.state.co.us/cpp/ecefundinginfo>.

Combining multiple early childhood funding sources allows programs to:

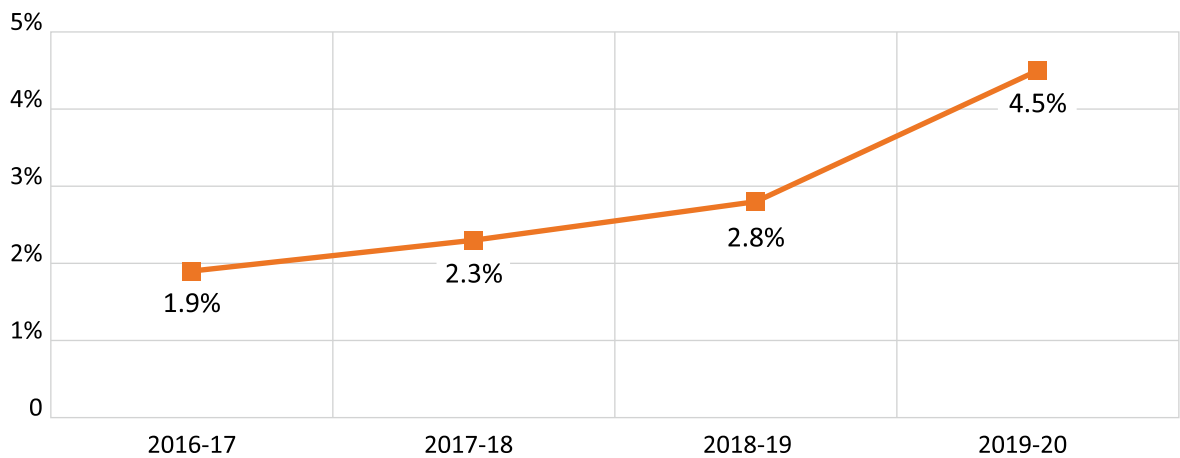
- Increase parental choice by adding full-day and/or extended-day, and/or year around options
- Increase quality by employing early childhood educators who hold CDE teacher licenses and paying them on parity with K-12 educators
- Provide increased professional development and coursework opportunities for early childhood staff
- Improve the quality of early childhood environments



Expanding CPP to Children with Educational Disabilities

The intent of the CPP Act is to provide services for children with the highest need and those most at risk for challenges later in their academic career. Children with an identified educational disability have established risks and an Individualized Education Program outlining the special education and related services they need to access and benefit from the general education curriculum.¹³ Since districts are encouraged to enroll those children most at risk, districts have been allowed to fund full-day preschool for children who qualify for CPP and special education by combining state per-pupil funding from CPP and preschool special education. In 2019-20, 1,054 children attended full-day preschool using combined per-pupil funding from CPP and preschool special education.

Figure 21: Percentage of All Children in CPP Who Also Received State Per-Pupil Funding for Preschool Special Education (for combined full-day services) from 2016 to 2020



¹³ C.R.S. § 22-28-106(a)(1)(IV) and 1 CCR 301-32 2228-R 5.08



Children's Growth

During the 2019-20 School Year

The *Results Matter* Assessment System

Programs funded by CPP participate in the Results Matter assessment system to measure progress, individualize instruction, and monitor children's growth over the course of the school year. The mission of Results Matter is to improve "outcomes for Colorado's youngest children by helping teachers, administrators, families, and other education stakeholders use authentic assessment data to inform classroom instruction as well as program and policy decision-making." In addition, Results Matter seeks to support best practices in early childhood assessment and inform program evaluation and continuous improvement efforts.

Results Matter uses authentic, formative assessment, which consists of observing children in their everyday learning environments and assessing progress in key areas of learning and development through the course of everyday routines and activities. By evaluating children's work samples and assessment scores, teachers can paint a unique, detailed view of each child that supports individualized instruction and provides meaningful information to families.

While the Results Matter assessment system can be used to inform instruction and monitor progress, it can also provide programs with an overall picture of how children are performing related to widely held expectations of child development over the course of the school year.

Decision makers at multiple levels use Results Matter data, often in combination with other data, for many purposes, including:

- 1 Planning individual and class-wide instruction
- 2 Communicating with families
- 3 Supplementing educational experiences at home
- 4 Planning classroom and program-wide improvement strategies
- 5 Allocating resources
- 6 Accountability reporting and program evaluation

“After each marking period, classroom staff analyze data to inform their instruction and planning. This process helps teachers and specialists see the progress their students are making, as well as identify areas of concern. During staff meetings and team planning meetings, teachers and specialists work together to analyze their classroom data. They make plans for large group instruction, small group lessons, and individualized activities for students in their classes.”

Thompson R-2J

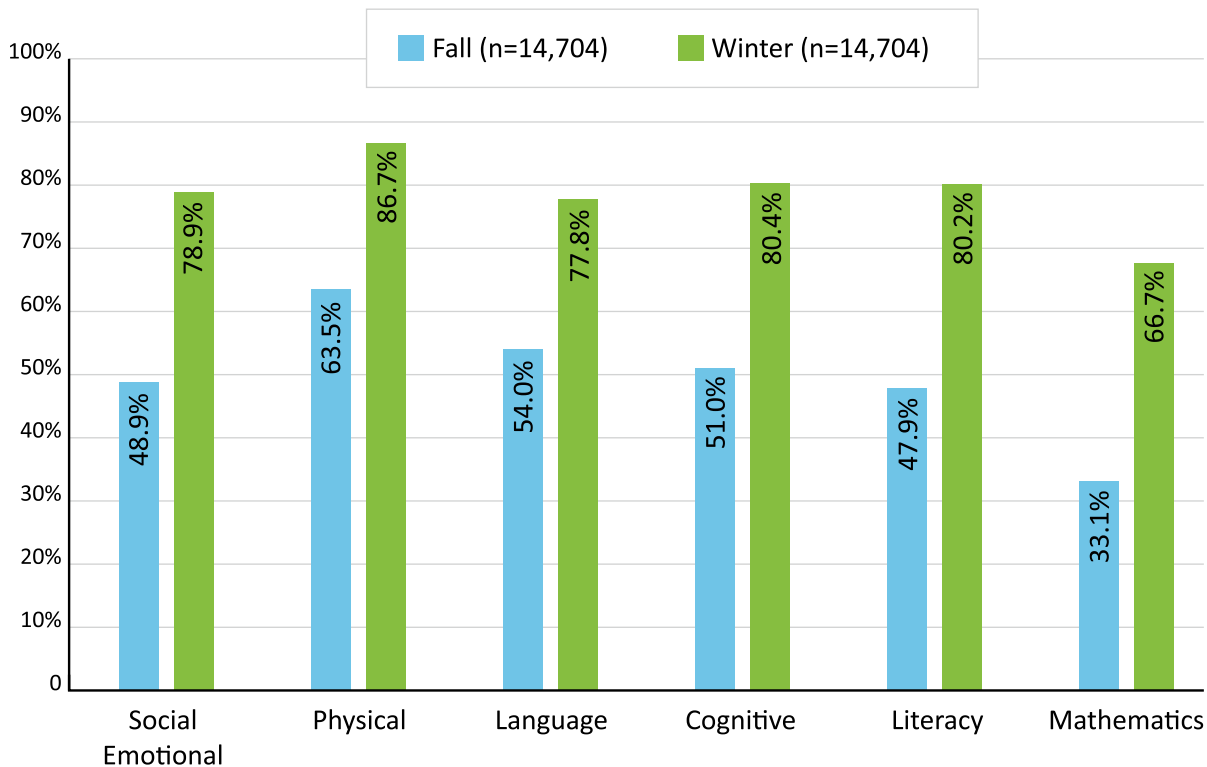


2019-20 CPP Results

Due to the impact of COVID-19 on the reporting process in the 2019-20 school year, programs were required to submit data for only the fall and winter checkpoints. End-of-year data was not able to be collected.

Results displayed in Figure 22 demonstrate the growth from the fall to winter checkpoints for 4-year-old children funded by CPP in the six measured domains: social-emotional, physical, language, cognitive, literacy, and mathematics. Children made significant overall gains in learning and development between the fall and winter checkpoints, and in all areas except mathematics, over 75% of children either met or exceeded the age expectations across these two checkpoints.¹⁴ While relatively fewer children met or exceeded age expectations in mathematics, the percentage point increase was highest in math (33.1 percentage points) compared to other areas. The percentage point increase from the fall to winter checkpoints ranged from 23.2 points (physical development) to 33.1 points (mathematics).

Figure 22: Percentage of 4-Year-Olds in CPP Meeting or Exceeding Age Expectations (2019-20)



¹⁴ Approximately 574 4-year-olds in CPP were assessed using HighScope COR Advantage, a second assessment system that has been approved for use for Results Matter. Those results are not reported here.

Results Matter Assessment Results: Disaggregated Trends

Figures 23-28 display results in each domain across several key demographic subgroups: gender, children's primary language, and race/ethnicity. Due to the impact of COVID-19 on the spring reporting process, each subgroup section begins with a bar chart that provides the percentage of 4-year-olds meeting or exceeding age expectations by the winter checkpoint. A second bar chart displays the average difference in scaled scores between fall and winter showing the growth made in each domain. These growth scores provide greater context in terms of progress toward age expectations over the course of this timeframe. While no cause can be attributed to these results, they do reveal trends of disparities across groups.

Key findings:

1 Differences exist across gender, race/ethnicity, and children's primary language, even among children in CPP who, by definition, are already at risk for academic challenges.

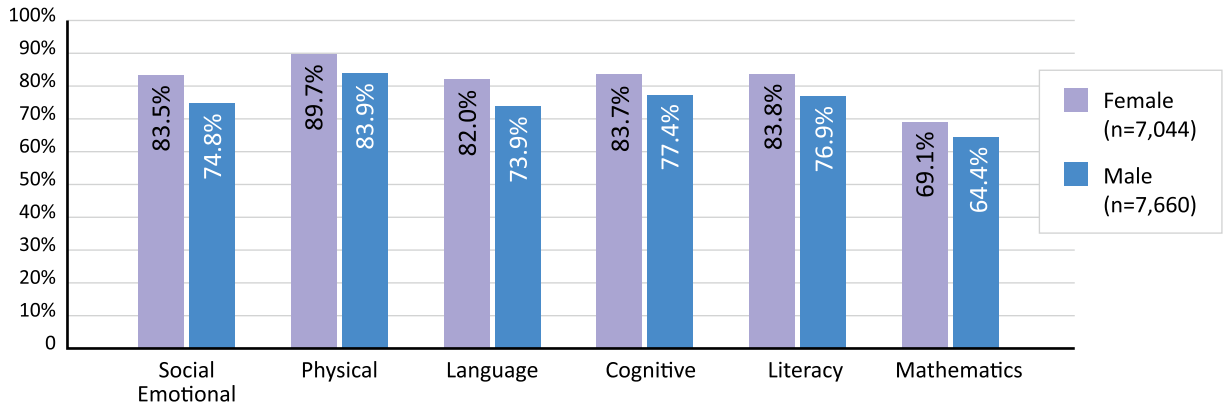
2 A higher percentage of female children served in CPP tend to meet age expectations than male children served in CPP across all six major developmental and academic areas.

3 Little difference is seen between CPP 4-year-olds whose primary language is not English and those whose primary language is English. The greatest difference is 5 percentage points within the language domain.

4 Looking across race and ethnicity, the range in the average rate of growth was lowest for social emotional development and highest for mathematics. This means that children in CPP, regardless of race and ethnicity, saw similar rates of growth in social emotional development between fall and winter, but growth varied more widely in mathematics from fall to winter.

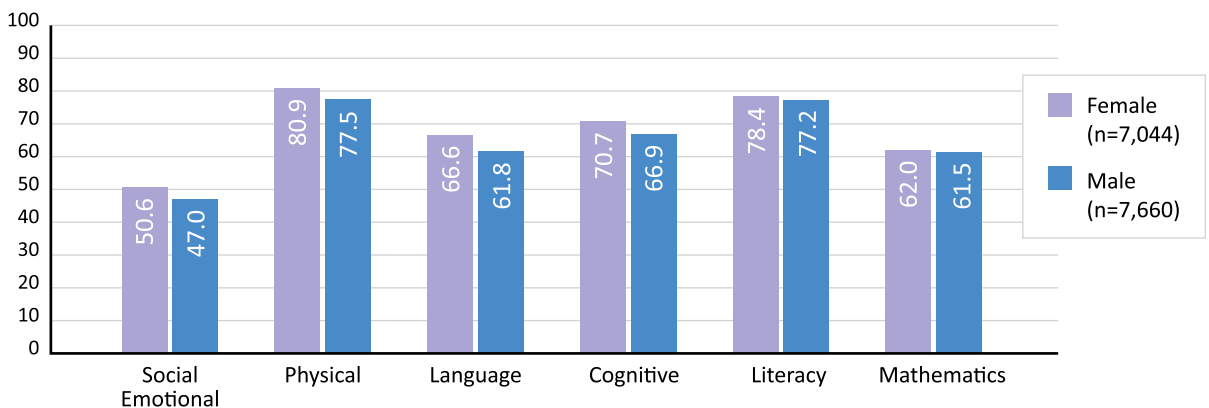
Results by Gender

Figure 23: Percentage of 4-Year-Olds in CPP Meeting Age Expectations by Gender in 2019-20



A higher percentage of females met or exceeded age expectations in all areas compared to males. However, a high majority of children met or exceeded age expectations by the winter checkpoint across area, regardless of gender. The highest percentages of students meeting age expectations were seen in the physical domain, with the lowest percentages of students meeting age expectations in mathematics. All differences between gender are statistically significant.

Figure 24: Average Growth in Scaled Scores between Fall 2019 and Winter 2020 by Gender

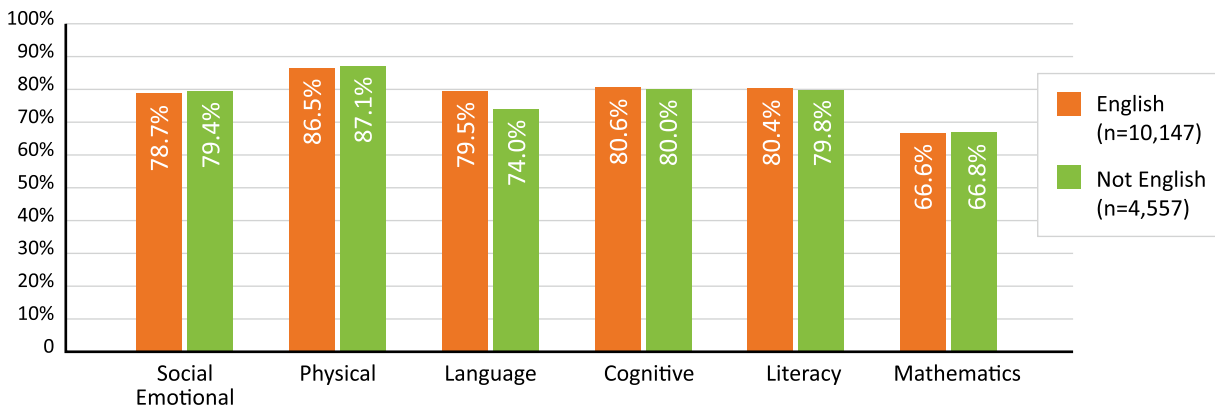


While the average rate of growth between fall and winter across areas was fairly consistent across genders, there are some slight differences. Females showed higher rates of growth that were statistically significant in the social-emotional, physical, language, and cognitive areas.

Results by Primary Language Spoken by Children

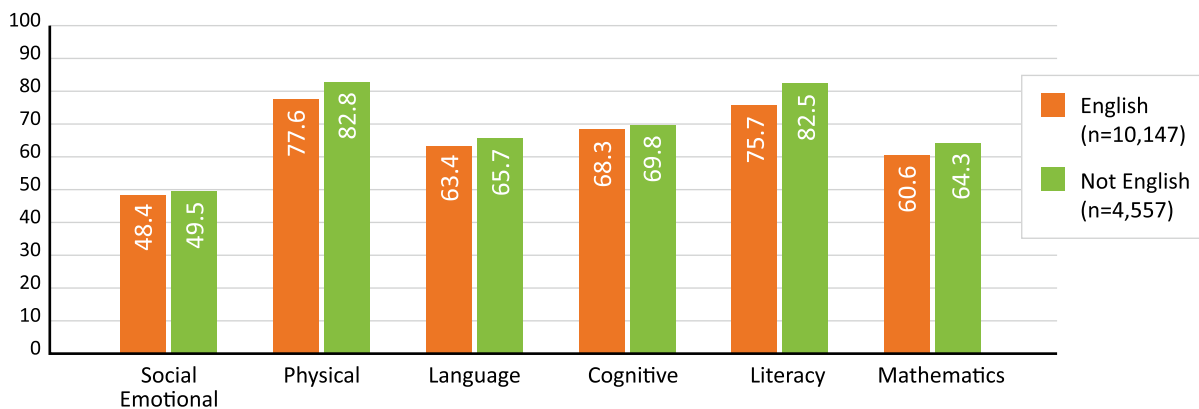
Statistically significant differences exist in the physical, mathematics, language, and literacy areas between children whose primary language is English compared to those whose primary language is not English. However, a majority of all children met or exceeded age expectations in all areas regardless of their primary language.

Figure 25: Percentage of 4-Year-Olds in CPP Meeting Age Expectations by Primary Language in 2019-20



On average, children whose primary language is not English demonstrated higher rates of growth that were statistically significant across most areas compared to children whose primary language is English. Statistically significant differences in rates of growth were seen for all areas except for the domains of social emotional and cognitive development.

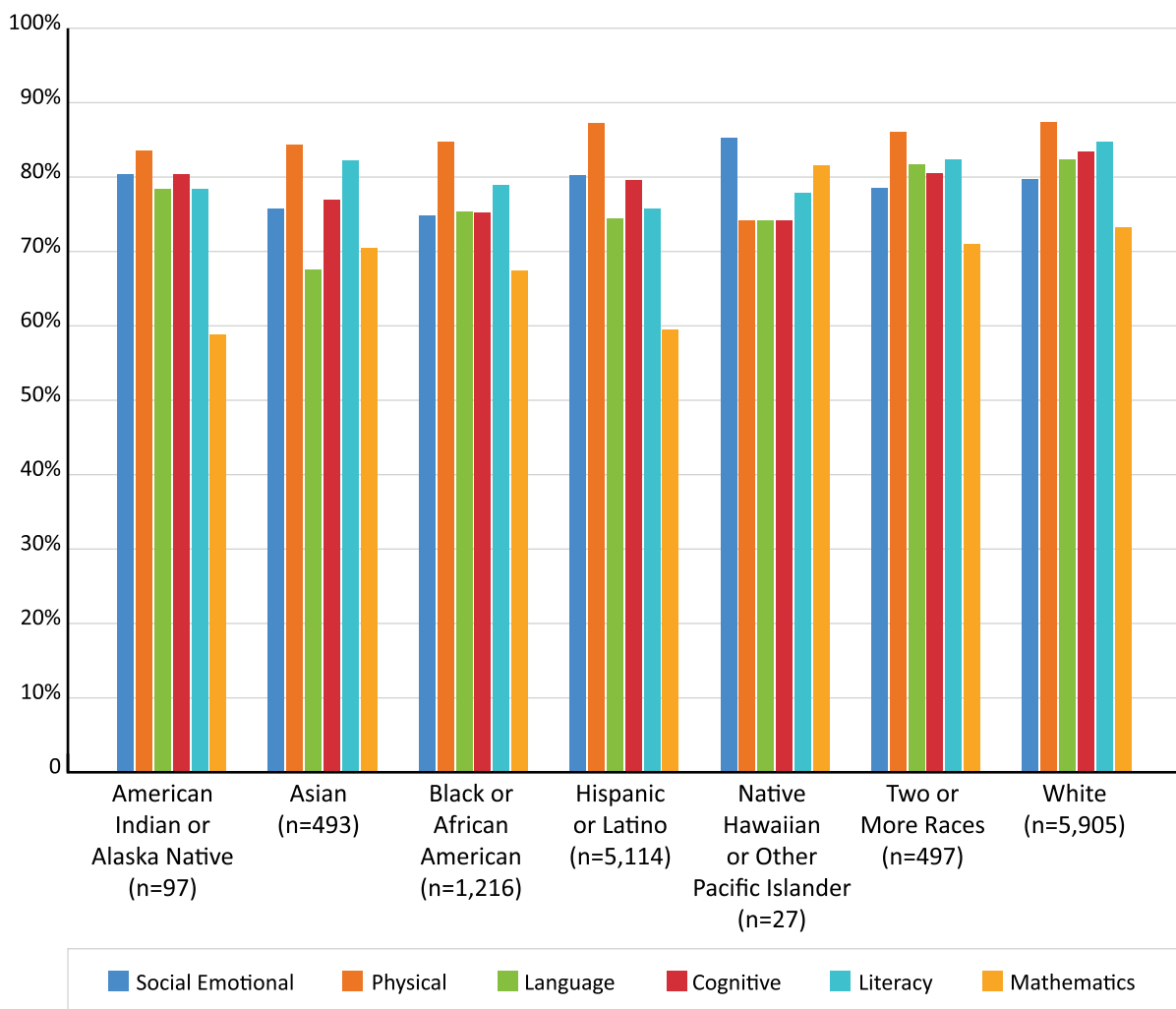
Figure 26: Average Growth in Scaled Scores between Fall 2019 and Winter 2020 by Primary Language



Results by Race/Ethnicity

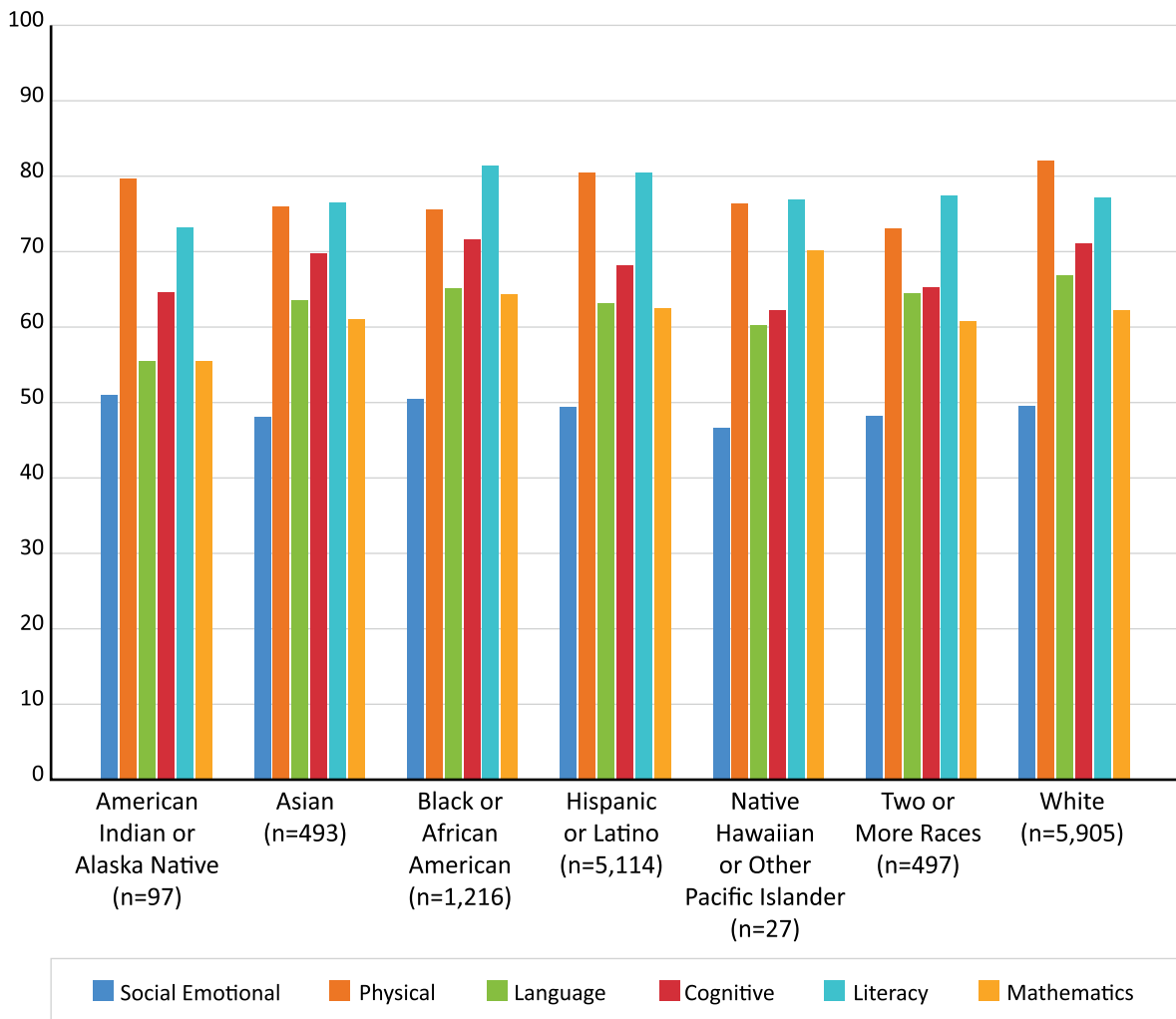
A majority of all children met or exceeded age expectations by the winter checkpoint across all areas regardless of race/ethnicity. Except for Native Hawaiian or Other Pacific Islander students, the physical development domain saw the greatest percentage of students meeting age expectations. This finding was consistent across all other races and ethnicities. Some statistically significant differences exist between racial/ethnic groups across the domains, although no one group consistently outperformed others in every area.

Figure 27: Percentage of 4-Year-Olds in CPP Meeting Age Expectations by Race/Ethnicity in 2019-20



Average rates of growth also differed across race and ethnicity. Looking across race and ethnicity, the range in the average rate of growth was smallest for social emotional development, meaning that children, regardless of race and ethnicity, showed similar rates of growth in social emotional development on average. Mathematics had the largest range in the average rate of growth, meaning that children developed in mathematics at more varying rates, on average.

Figure 28: Average Growth in Scaled Scores between Fall 2019 and Winter 2020 by Race/Ethnicity



Long-Term Outcomes for Students Served by CPP

Longitudinal data for students who participated in CPP show positive long-term outcomes related to grade retention, Colorado Measures of Academic Success (CMAS) assessment, and on-time graduation.

Key Findings:

1

Students who participated in CPP are retained at a lower rate in grades K-3 than children who did not participate in CPP. Compared to at-risk peers who did not attend state-funded preschool, CPP graduates are less likely to be retained (i.e., held back in a grade) by about half in K-3 overall and as low as two-thirds the rate in first grade. This translates to lower costs for children repeating a grade.

2

The percentage of CPP graduates who meet or exceed CMAS expectations is higher compared to at-risk peers in most subject areas. These trends are seen as far out as 11th grade in the case of science.

3

Students who participated in CPP are more likely to graduate on time than children who did not participate in CPP. The odds of graduating on time with a high school diploma (within four years of entering ninth grade) were 12 percent higher for children who participated in CPP in the 2004-05 school year, even when controlling for key demographic variables.





Grade Retention Results

Although a serious consideration, grade retention is one of several interventions that a school can use to support a child's trajectory of learning. Supporting children who repeat a grade increases the costs associated with funding public school. While high-quality preschool requires a significant investment, it generally costs less than retention. The data below suggest a return on investment in CPP.

Grade Retention Outcomes for CPP

Figure 29 shows the overall proportion of children from three different cohorts who were held back at any point in grades K-3 (i.e., cumulative retention rate).¹⁵ Figure 30 breaks retention data down further, showing retention rates in each grade (K-3).

Children in Cohort 1 received CPP funding in 2012-13, and assuming a normal grade progression, reached third grade by 2016-17. Children in Cohort 2 received CPP funding in 2013-14 and advanced to third grade in 2017-18, and children in Cohort 3 received CPP funding in 2014-15 and advanced to third grade in 2018-19. However, due to the nature of retention, these analyses are lagged by a year to appropriately match data to a comparison group and to measure and capture any students that may have been retained. This additional year is needed to ensure that the student reaches fourth grade within a normal grade progression.

Key findings:

1

Although Cohort 3 saw a slight increase in retention, CPP is associated with a reduced need for retention by about half in K-3 overall and as much as two-thirds the rate in first grade when compared to similar groups of at-risk children who did not attend state-funded preschool.

2

Across cohorts, retention rates are highest in first grade for children with no history of state-funded preschool but lower for CPP graduates.

3

These trends have remained consistent over time.

¹⁵ See longitudinal data appendix for cohort descriptions.

Figure 29: Cumulative Retention Rates: Kindergarten through Third Grade

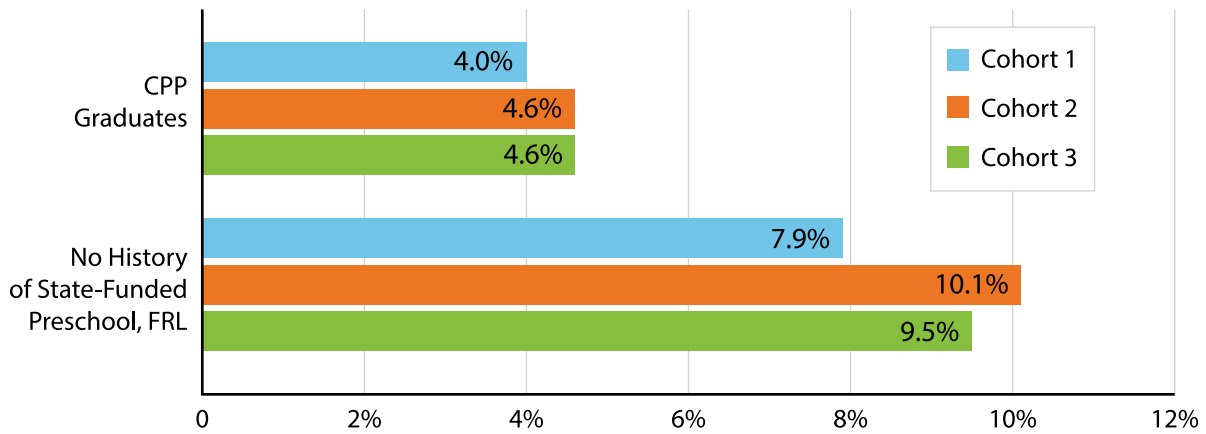
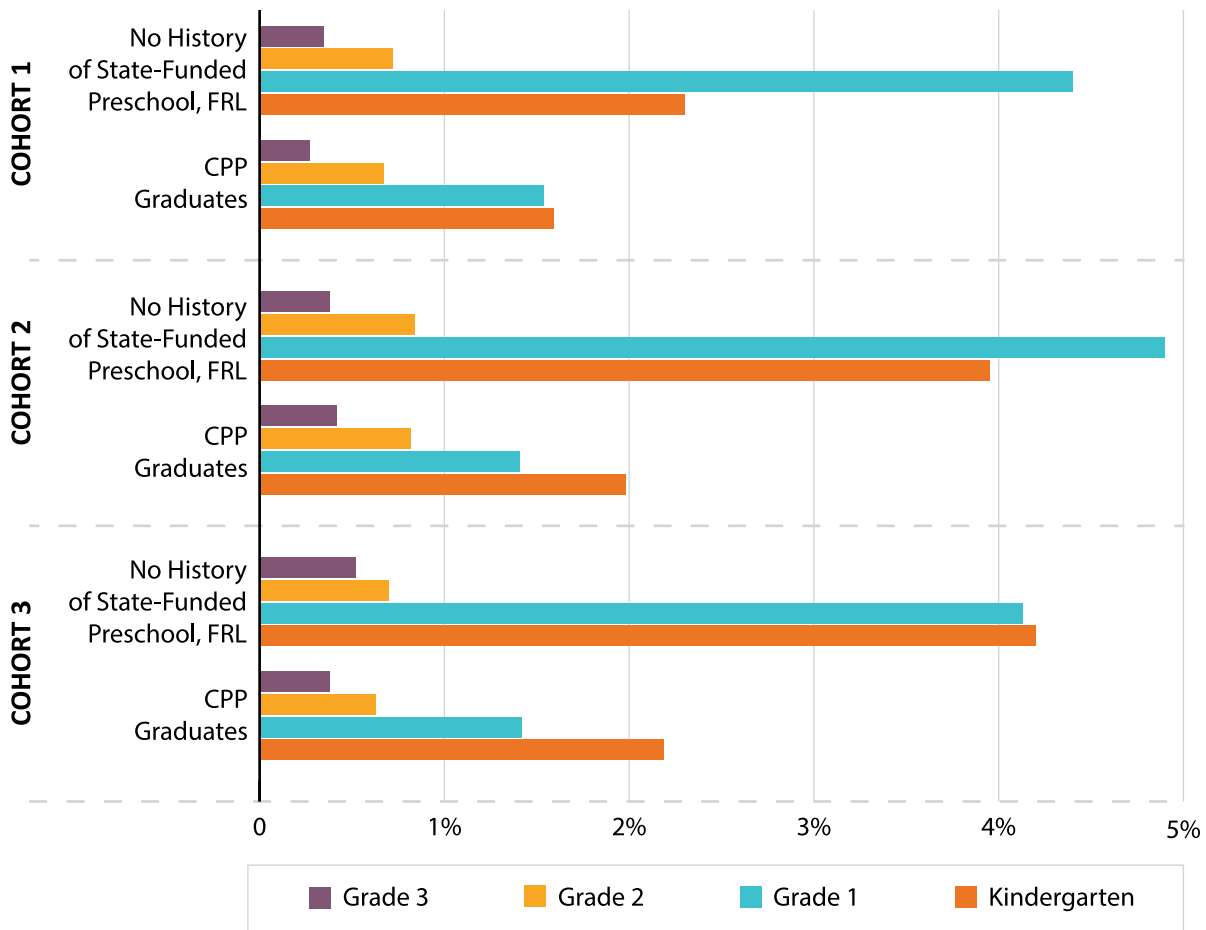


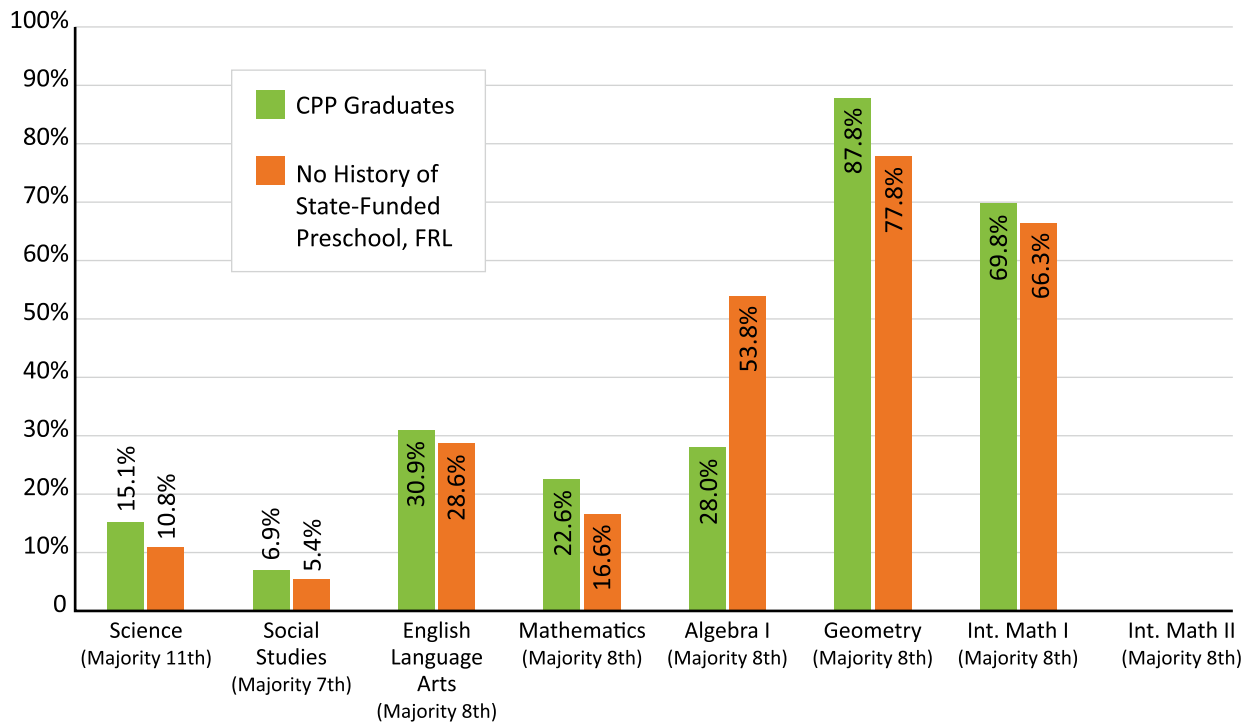
Figure 30: Percentage of Students Who Were Retained by Grade



Colorado Measures of Academic Success (CMAS) Results

Based on 2018 CMAS results, the percentage of CPP graduates who meet or exceed expectations in any single subject area is typically higher than the comparison group of at-risk peers with no history of state-funded preschool. These trends are evident as far out as 11th grade in the case of science. Please see the data appendix for descriptions of the groups presented in Figure 31.¹⁶

Figure 31: 2018 CMAS Results



Methodological Notes and Limitations

CMAS data availability is limited. As of 2018, CMAS science and social studies had been administered for five years. CMAS ELA and math had only been administered for four years. In addition, science and social studies are not assessed in every grade. Therefore, different cohorts were used depending on the subject area. Integrated Math II is not displayed due to low participation. Please see the longitudinal data appendix for more information.

¹⁶ These trends hold for the subjects presented in Figure 31 except for Algebra I. This is the only subject reported where the comparison group of at-risk peers outperforms students who received CPP funding the year before kindergarten.

On-Time Graduation Results

Children served in CPP in the 2004-05 school year were 12 percent more likely to graduate on time with a high school diploma within four years of entering ninth grade compared to children who did not receive CPP funding. This result held true even when controlling for gender, race/ethnicity, eligibility for free- and reduced-price lunch, disability, and language proficiency.

Descriptive analysis showed that the rates of on-time graduation for the 2018-19 graduating cohort differed between those students who did not receive CPP funding, those children who received part-day funding, and those children who received full-day funding. Students who did not receive CPP funding and were eligible for free or reduced lunch had an on-time graduation rate of 68.3 percent. This is lower than those students who received half-day funding for CPP (75.6 percent) and is also lower than those students who received full-day funding for CPP (80.3 percent). This may suggest a greater long-term impact for students who received part- or full-day funding. However, caution should be used when interpreting these percentages, as these rates do not control for any additional demographic characteristics, like gender, race and ethnicity and disability status, nor any preschool services that may have been provided in a private, non-state funded setting.

Table 3. Comparison of On-Time Graduation Rates, 2018-19

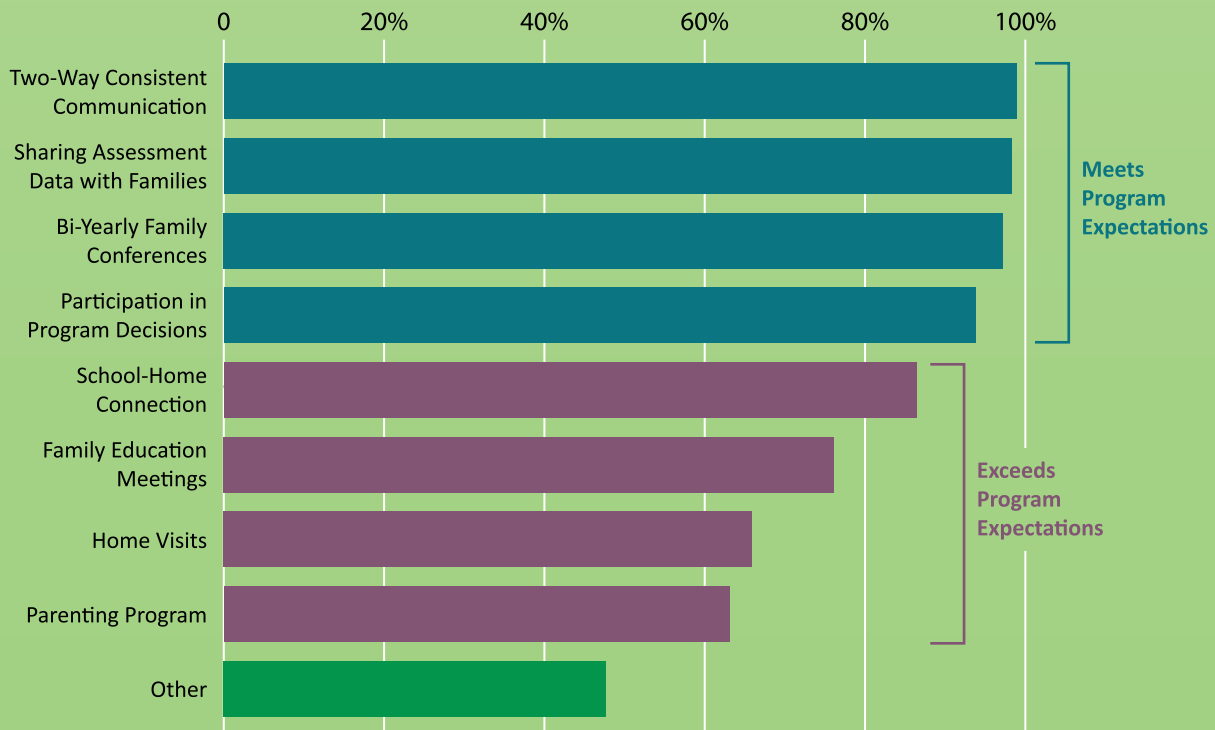
SUBGROUP OF GRADUATING CLASS	Rate of On-Time Graduation
Students who did not receive CPP funding, but were eligible for free and reduced lunch	68.3%
Students who received half-day CPP funding the year before kindergarten	75.6%
Students who received full-day CPP funding the year before kindergarten	80.3%

The Vital Role of Family Engagement

An important goal of CPP is involving families in their children’s school experience, starting in preschool. CPP rules require parents/guardians to sign an agreement about their responsibilities to their children’s educational program.¹⁷ Programs serving children in CPP are expected to actively engage families in preschool, using strategies like home visiting and school events that enhance home-school connections. Many districts report using high-impact family engagement strategies that meet or exceed CPP program expectations. In fact, 73 districts reported using all eight strategies identified by CDE.

Due to the impact of COVID-19, not every district was able to report complete information for their family-engagement strategies. The vast majority of the 176 participating districts meet CPP expectations by using the following family engagement strategies: two-way consistent communication, sharing assessment data, bi-yearly family conferences, and family participation in program decisions. Over half of all programs exceeded expectations by creating a school-home connection and participating in family education meetings, home visits, and parenting programs.

Figure 32: Percentage of CPP-Participating School Districts Reporting Use of High-Impact Family Engagement Strategies in 2019-20



73 school districts (41.5% of districts participating in CPP) reported using all eight family engagement strategies that meet or exceed program expectations.

¹⁷ 1 CCR 301-31

“

Our program is constantly checking in and asking parents their thoughts and opinions on the program. The CPP Coordinator sends out surveys to receive feedback, [and] communicates ... with preschool parents that ... can give input for the program. We strive to ensure the parents are heard when concerns arise, and they are addressed immediately.

”

Kiowa School District



CDE's Commitment to Early Learning from Preschool through Third Grade

CDE's commitment to early learning is clear: the first initiative in CDE's Strategic Plan, the Strong Foundations, outlines a commitment of support to children and their educators in preschool through third grade. This is key for later school success, as developmental scientists consider the period from birth through age 8 as critical for setting the stage for children's later success in school and beyond.¹⁸ It is also known that positive early childhood outcomes are sustained when children experience a coherent, aligned educational system that supports each child's developmental and academic needs. CDE has taken steps toward this aligned system through partnerships with the Colorado Department of Human Services (CDHS), focusing on transitions between preschool and kindergarten, and seeking greater alignment among assessment systems in early childhood. It is the intention that these steps will only reinforce the present success of the Colorado Preschool Program, as partnerships continue to flourish across the department, districts, community organizations, schools, and families.



¹⁸ Kauerz, K. (2013, March/April). The Path to Lifelong Success Begins With P-3. Principal. Retrieved from: https://www.naesp.org/sites/default/files/Kauerz_MA13.pdf

Conclusion

The success of the Colorado Preschool Program is seen not only in the short- and long-term outcomes for children, but also in the stories of improving practices, relationships built with districts, and illustrations of diversity through inclusion and blended funding. The sustained investment in CPP for over 30 years has created opportunities for hundreds of thousands of children to benefit from high-quality preschool programming, and CDE commits to ensuring continued efforts toward these goals.



Data Appendix

This section includes supplemental notes, descriptive statistics, and cohort definitions for grade retention and CMAS results.

Grade Retention: Cohort Definitions

Cohort 1:

- CPP = CPP in 2012-13, K in 2013-14
- At Risk, No History of State-Funded Preschool = No history of state-funded preschool and eligible for free or reduced price lunch in first grade in 2014-15

Cohort 2:

- CPP = CPP in 2013-14, K in 2014-15
- At Risk, No History of State-Funded Preschool = No history of state-funded preschool and eligible for free or reduced price lunch in first grade in 2015-16

Cohort 3:

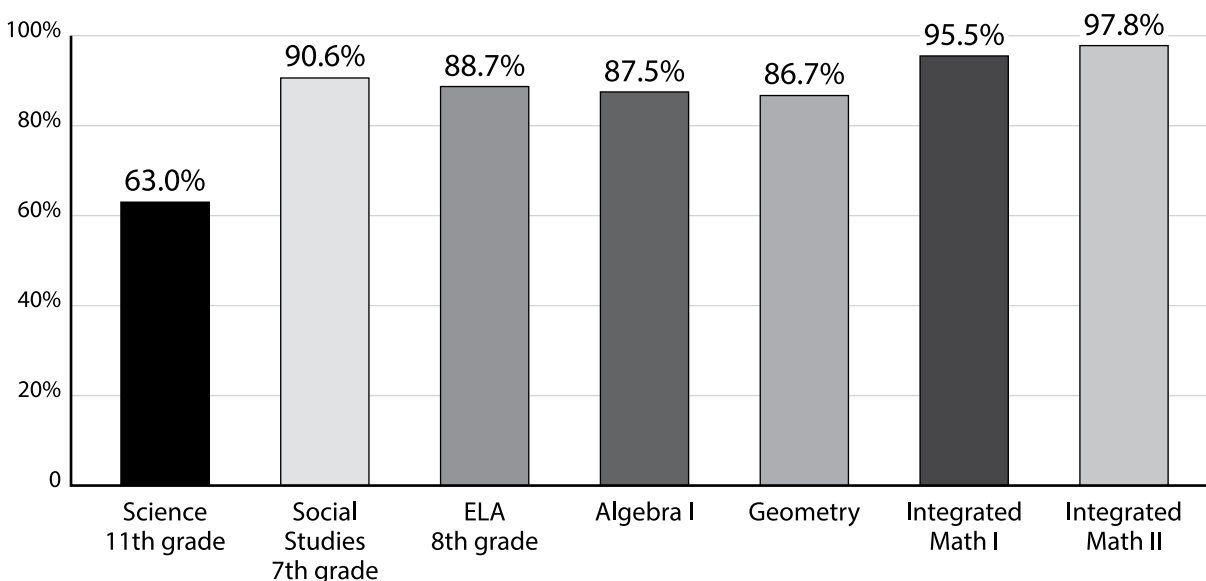
- CPP = CPP in 2014-15, K in 2015-16
- At Risk, No History of State-Funded Preschool = No history of state-funded preschool and eligible for free or reduced price lunch in first grade in 2016-17

N Sizes		
COHORT	CPP	COMPARISON GROUP
Cohort 1	15,435	17,833
Cohort 2	13,732	12,674
Cohort 3	17,408	11,655

CMAS: Methodological Notes

- Where noted, the phrase “At Risk, No History of State-Funded Preschool” refers to a grade-matched comparison group defined as children eligible for free or reduced price lunch in first grade the same expected year as the CPP cohort and with no history of publicly-funded preschool, as denoted by the fall pupil counts. CDE does not track whether children had other preschool experiences besides state-funded preschool (i.e., CPP and preschool special education).
- Each cohort includes a small percentage of children who did not follow a normal grade progression because they either attended preschool for multiple years, were held back, or skipped a grade. The effect on the 2018 grade distribution varies depending on the CMAS subject.
- English language arts is assessed in grades 3-9, where about 8.6 percent of the CPP cohort and 6 percent of the comparison cohort were assessed in a grade lower than 8th grade in 2018. In contrast, science and social studies are not assessed every year. For the CPP cohort, 99.8 percent and 99.3 percent of children reported in science and social studies were in 11th grade and 7th grade, respectively. However, some children from the original cohorts were in a grade higher or lower than 11th grade by 2018, meaning they would not be assessed at all in science or social studies until that year. Until more years pass, these children cannot be reported in science and social studies.
- Algebra I, Geometry, and Integrated Math I and II were administered mostly in 8th grade with the exception of a few children in 7th grade who had the flexibility to take these specific math exams.
- Social studies was administered on a sampling basis with approximately one-third of schools participating.
- 2018 statewide participation rates varied widely by subject area and grade:

2018 CMAS Participation Rates



CMAS: Cohort Definitions

Science (Majority in Eleventh Grade):

- CPP = CPP in 2005-06
- No History of State-Funded Preschool = No history of state-funded preschool, eligible for free or reduced price lunch in first grade in 2007-08

Social Studies (Majority in Seventh Grade):

- CPP = CPP in 2009-10
- No History of State-Funded Preschool = No history of state-funded preschool, eligible for free or reduced price lunch in first grade in 2011-12

English Language Arts (Majority in Eighth Grade):

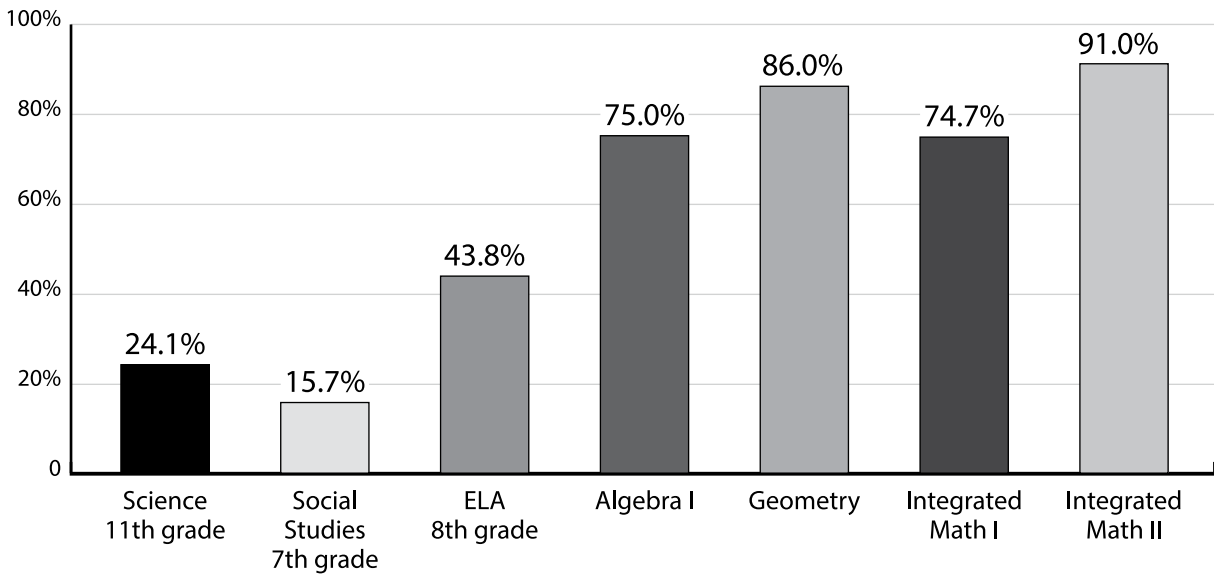
- CPP = CPP in 2008-09
- No History of State-Funded Preschool = No history of state-funded preschool, eligible for free or reduced price lunch in first grade in 2010-11

Mathematics (All Test Subjects—Majority in Eighth Grade):

- CPP = CPP in 2008-09
- No History of State-Funded Preschool = No history of state-funded preschool, eligible for free or reduced price lunch in first grade in 2010-11



Colorado Statewide CMAS Results



N Sizes		
SUBJECT	CPP Graduates	Comparison Group
Science (Majority 11th)	4,578	7,691
Social Studies (Majority 7th)	3,661	3,692
English Language Arts (Majority 8th)	2,756	12,075
Mathematics (Majority 8th)	13,148	11,223
Algebra I (Majority 8th)	1,136	670
Geomerty (Majority 8th)	49	63
Int. Math I (Majority 8th)	63	104
Int. Math II (Majority 8th)	n<16	n<16

On-Time Graduation Longitudinal Model: Methodological Notes

The longitudinal model which evaluated on-time graduation used a statistical technique known as logistic regression. Logistic regression helps illuminate the relationship between several independent variables—in this case, race/ethnicity, disability, CPP participation, etc.—on a particular dependent variable of interest—in this case, on-time graduation. Logistic regression is a type of inferential statistics, which have a distinct advantage over descriptive statistics, such as overall percentage of females in CPP, in that the results can be generalized to the entire state and across multiple years, assuming similar characteristics over time. The regression model also allows for understanding the unique impact of CPP even after controlling for other factors, such as free or reduced lunch eligibility or disability, that are also likely to affect the outcome.

Even with the advantages that inferential modeling provides, some limitations still exist:

- Due to the nature of longitudinal studies, an older cohort of CPP-funded children had to be used to look at recent graduation rates. Program and cohort characteristics may have shifted over time. More recent cohorts can be used over time.
- The studies did not consider children who had other prior preschool experiences not related to the funding streams of CPP or preschool special education, such as tuition-based childcare. Therefore, these models cannot control for other preschool experiences or funding sources.
- The models did not control for other demographic factors, such as maternal education and family income, which may influence outcomes but where such data are not collected by CDE.
- These studies did not investigate selection bias. Selection bias arises when there is potential for initial differences between children who participate in preschool and those who do not, such as when certain families self-select not to participate in CPP despite having multiple risk factors. However, state policy prevents the ability to randomly assign children to CPP in a randomized controlled trial design. State policy also prevents the comparison of a single assessment metric at both preschool and kindergarten to set up a regression discontinuity design, which might eliminate the threat of selection bias. Also, at least one other study concluded that selection bias underestimated the effects of preschool participation on kindergarten outcomes.¹⁹
- Descriptive statistics for these models are available upon request.

¹⁹ Jung, K. and Barnett, S. (2013). Longitudinal Effects of the Arkansas Better Chance Program: Findings from First Grade through Fourth Grade. Retrieved from <http://nieer.org/wp-content/uploads/2016/08/Arkansas20Longitudinal20Report20May2013n.pdf>

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