

Colorado Preschool Program Amended Legislative Report March 2016

Amended to include additional longitudinal outcomes (READ and retention data) which were not available at the time of original submission



Submitted to:
Colorado General Assembly

By:

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Welcome to the Colorado Preschool Program Legislative Report for 2016.

Early childhood education is a vital component of the Colorado Department of Education's "Start Strong" goal. Together with districts and their community partners, we work to implement the Colorado Preschool Program in order to ensure that Colorado children with academic risk factors start school with a solid foundation.

Each year, the Colorado Department of Education reports to the Colorado General Assembly on the effectiveness of the Colorado Preschool Program (CPP). We are pleased to present the 2016 report which provides highlights of how CPP was implemented in the 2014-2015 school year.

School districts run their own programs. This year, we wish to share some of their own stories which highlight child outcomes. District and family data, stories, and comments show the positive impact CPP has on children.

Respectfully,

Elliot Asp, Interim Commissioner

New to the Colorado Preschool Program?

The Colorado Preschool Program (CPP) was enacted by the Colorado General Assembly in 1988 and has provided state funding for preschool and expanded kindergarten for over 300,000 young children in Colorado who are most at risk for starting elementary school unprepared. Each year the General Assembly provides preschool funding for 20,160 children who have certain risk factors in their lives that are associated with later challenges in school. In 2013 and 2014, the General Assembly expanded CPP through the Early Childhood At-Risk Enhancement (ECARE) program which provided more flexible funding to offer half- or full-day preschool or full-day kindergarten for an additional 8,200 young children. With the expansion, CPP can serve as many as 28,360 eligible children each year.

Children who are eligible for CPP attend high-quality early childhood programs. These may be located in school district settings, local child care centers, community preschools or Head Start programs.

CPP is managed by local school districts and their preschool advisory councils. Each participating school district is provided a predetermined number of half-day slots to serve eligible children. Some districts also receive ECARE slots, which can be used to serve eligible preschoolers or to provide full-day opportunities for eligible kindergarteners. Two half-day CPP or ECARE slots can be combined to create full-day opportunities for preschool children with very high needs.





CPP in 2014-2015—By the Numbers

CPP Eligibility Factors

Children are determined eligible for CPP based on certain risk factors present in their lives. These risk factors have been shown to be associated with later challenges in school.

- Four-year-olds must have at least one risk factor present although most children served have two or more.
- Three-year-olds must have at least three factors present.

CPP Risk/Eligibility Factors

Each line represents the percentage of CPP-funded children with that risk factor Figure 1

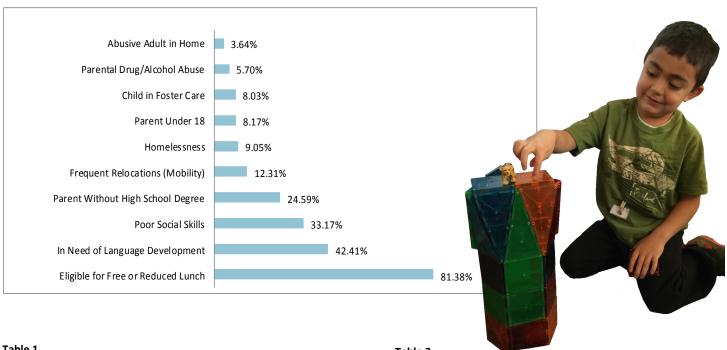


Table 1

Settings Where Children are Served by CPP

Where CPP Children Were Served	Percentage
Public School	75.7%
Community Program	14.8%
Head Start	9.5%

Table 2

Gender of Children Served by CPP

Gender	Number of Children Served by CPP	Percentage
Female	13,662	51%
Male	13,355	49%

Table 3

Race/Ethnicity of Children Served by CPP

Race/Ethnicity	Children Served by CPP	Percentage
American Indian or Alaska Native	219	1%
Asian	666	2%
Black	2,130	8%
Hispanic	14,819	55%
White	8,427	31%
Hawaiian/Pacific Islander	47	<.01%
Two or More Races	709	3%
Total	27,017	100%



CPP in 2014-2015—*By the Numbers* (cont.)

Total Program Funding: \$102,189,794

Preschool CPP and ECARE — \$83,099,166

Full-Day Kindergarten ECARE — \$19,090,627

Compared to \$5.804 billion total funding in K-12

Colorado Average Funding per Slot: \$3,603

Compared to \$4,679 — national average of state preschool spending per slot (*The State of Preschool 2014*, National Institute of Early Education Research)



Estimated Unmet Need for CPP

Using data from the State Demography Office and state pupil counts, CDE has calculated that as many as **11,483** at-risk four-year-olds had no preschool available to them through either CPP or Head Start in the 2014-2015 school year. This calculation factors in the average number of children in first through eighth grade who are eligible for free or reduced price lunch as a percentage of the total first through eighth grade student population.

Children on Local CPP Waiting Lists: 4,160

Self-reported by school districts. Not all school districts keep waiting lists so this may not represent true unmet need. Exact level of need is estimated to be significantly higher, as described above.

School Districts Participating in CPP: 97%

174 of 179 participating school districts

Including the Charter School Institute

Slots Authorized by the Legislature: 28,360

CPP - 20,160

ECARE — 8,200

Total Enrollment: 27,017*

Enrollment by Age:

Children under three - 425**

Three-year-olds — 5,375

Four-year-olds — 15,913

Kindergarteners — 5,304

Enrollment by Length of Day:

Half-Day Preschool Enrollment — 20,370

Full-Day Preschool Enrollment — 1,343

Full-Day Kindergarten Enrollment - 5,304

*Number of children enrolled is lower than authorized slot total because some children are served full-day using two CPP slots.

Charter School Participation

In the 2014-2015 school year, 242 children with CPP funding were served through Charter School Institute, and district charter schools in Adams-Arapahoe 28J, Clear Creek RE-1, West End RE-2, Denver County 1, Park County RE-2, and St. Vrain Valley RE1J school districts.

Districts Providing Vision and Hearing Screenings:

168 of 174 participating school districts

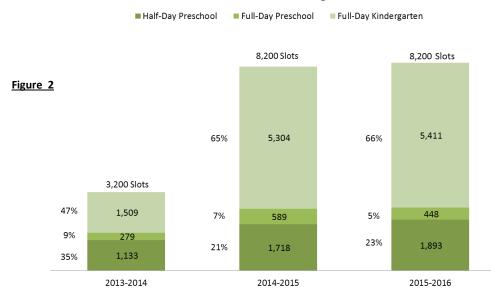
^{**}Some districts are able to serve younger children through a waiver granted at the initiation of the Colorado Preschool Program. This option is no longer statutorily available.



Expanding Access to CPP: Early Childhood At-Risk Enhancement (ECARE)

In 2013 and 2014, the General Assembly expanded CPP through the Early Childhood At-Risk Enhancement (ECARE) program which provided funding to offer half- or full-day preschool or full-day kindergarten for an additional 8,200 young children. The intention of this approach is to allow school districts more flexibility in serving our youngest learners. With the addition of ECARE, up to 28,360 children have the opportunity to attend high-quality preschool or full-day kindergarten.

ECARE Slot Usage



School districts may change the usage of their allotted ECARE slots from year to year based on the needs of their early childhood population.

They may serve half-day preschool, full-day preschool, or full-day kindergarten.

Local Program Response to ECARE

Garnet Mesa Elementary School kindergartners have greatly benefitted from support funded through ECARE. One of the primary supports is the ability to have classes with fewer students, allowing the teachers to give every student the attention he or she needs. Teachers are now better able to adjust and differentiate instruction to meet student needs. Our ECARE slots have also allowed us to pinpoint students who need extra support, and then to provide that support through smaller groups and through our interventions. ECARE students are progress monitored weekly and then given interventions that meet their specific deficits.

By helping us provide smaller class sizes, by providing staff development time, and by allowing an increased use of technology in our kindergarten classes, ECARE has been a valuable support for our kindergarteners. As a result, their reading data has been outstanding. In fact, more than 95% of our kindergarten ECARE students have achieved high achievement and growth in reading. ECARE support has also helped teachers and administrators build stronger relationships with the families of ECARE students. Parents have taken active roles in their children's education, and are frequent volunteers at school. The home visits have been very positive, and parents have been extremely receptive of the support that ECARE provides.

The impact on our students because of the ECARE slots has been substantial, and the Garnet Mesa Elementary community is greatly appreciative.

Jim Farmer
Principal, Garnet Mesa Elementary
Delta County 50(J)

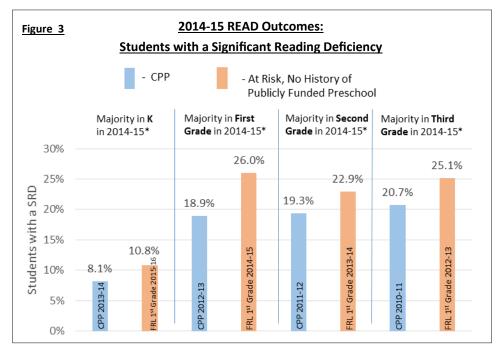


Colorado Preschool Program and the Colorado READ Act

The 2012 Colorado Reading to Ensure Academic Development Act (READ Act) focuses on improving early literacy by providing intervention supports to K-3 students identified as having a significant reading deficiency (SRD). Children determined to have an SRD require the most intensive instructional supports. These children will not make sufficient progress with core instruction and differentiation alone.

READ Outcomes for Colorado Preschool Program Figure 3 illustrates SRD rates in 2014-15 among four consecutive cohorts of children in CPP from 2010-2013. SRD rates are also compared to grade-matched comparison groups of children who were at risk (FRL in first grade) but did not have any history of publicly funded preschool. Some of the key findings:

- While CPP graduates demonstrate higher SRD rates than the state overall, SRD rates for CPP graduates are significantly lower compared to other at-risk children who had no history of publicly funded preschool.
- For all students, SRD rates are similar in grades 1-3 while kindergarten SRD rates are significantly lower.
- On average, students are being identified with SRD at a lower rate than in the first year of data collection (use caution when interpreting trends over multiple years as this is a new data collection).
- In general, children who are retained (held back) are more likely to have a SRD.
- These data mirror patterns in CSAP/TCAP outcomes as reported in previous CPP legislative reports.



2014-15 Colorado State SRD

G	rade	Statewide SRD Rate
	K	6.4%
	1	16.9%
	2	15.4%
	3	16.1%

N Size

Cohort	СРР	At-Risk Comparison Group
Majority K	12,461	15,236
Majority 1st	10,776	16,757
Majority 2nd	10,735	15,941
Majority 3rd	10,442	14,817

†At-Risk Comparison Group = grade-matched comparison group defined as children eligible for free or reduced price lunch in first grade during the same year as the matched CPP cohort, with no history of preschool in CDE Student October count. CDE does not track whether children had other preschool experiences besides CPP and preschool special education.

*Each cohort includes a small fraction of children who did not follow a normal grade progression because they were either held back or skipped a grade, and thus may have appeared in a higher or lower grade for the 2014-15 READ data collection.

Other Important Notes:

- -A small fraction of students not identified with SRD were English Language Learners who initially showed a SRD on one of the interim assessments but were determined not to have a SRD based on other English Language Development data and/or ACCESS scores (determined locally).
- -Calculations do not include children who were exempt from READ assessment, third-graders who took the CoAlt, and K-2 students who were eligible to take the CoAlt.
- -2015 was the third year of READ data collection. As with any new data collection, data quality improves over time. Therefore, please use caution when interpreting changes between years. CDE has worked to resolve complications and ensure the data is more valid and reliable.



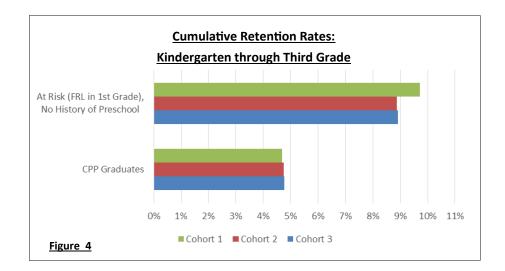
Colorado Preschool Program—Long-Term Impact on Grade Retention

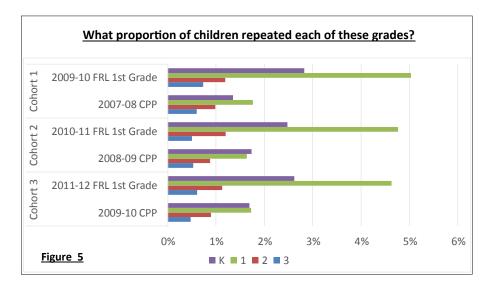
Grade retention (holding students back) is one mechanism in a school's toolbox of intervention strategies. Supporting children who have fallen behind puts pressure on school resources and requires additional expenditures. Retention effectively costs Colorado taxpayers an extra year's worth of per-pupil spending. As the educational system pays the cost of remediation, so do children pay in the form of missed opportunities and lower self-confidence in their own learning.

Grade Retention Outcomes for Colorado Preschool Program Figure 4 below 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). Figure 5 breaks it down further, showing retention rates in each grade (K-3). Key findings:

- Compared to similar groups of at-risk children who did not attend publicly funded preschool, CPP is associated with a reduced need for retention by as much as one-third in first grade and a lower rate in subsequent grades.
- Overall, retention rates are highest in first grade.
- Trends are consistent across multiple cohorts.

While high-quality preschool requires significant investment, it is often less costly than retention. The return on investment is evident in the positive outcomes in social-emotional and physical development, early literacy and future academic success, as evidenced in this report and the wider research base.





Cohort 1:

CPP = CPP in 2007-08, K in 2008-09

At Risk, No History of Preschool = No history of preschool, eligible for free or reduced price lunch in first grade in 2009-10

Cohort 2:

CPP = CPP in 2008-09, K in 2009-10

At Risk, No History of Preschool = No history of preschool, eligible for free or reduced price lunch in first grade in 2010-11

Cohort 3:

CPP = CPP in 2009-10, K in 2010-11

At Risk, No History of Preschool = No history of preschool, eligible for free or reduced price lunch in first grade in 2011-12

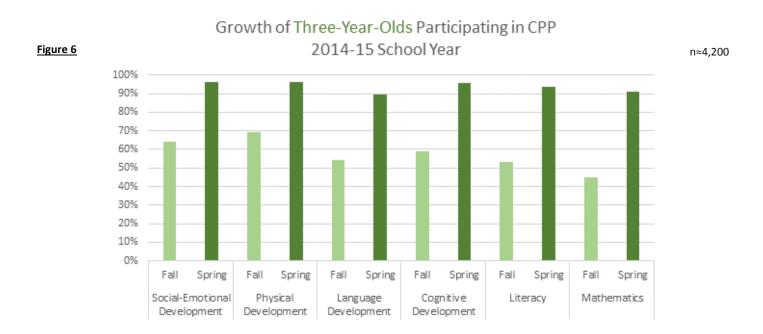
<u>N-Size</u>	CPP Graduates	At Risk Comparison Group
Cohort 1	10,808	17,642
Cohort 2	10,798	16,856
Cohort 3	11,553	16,920

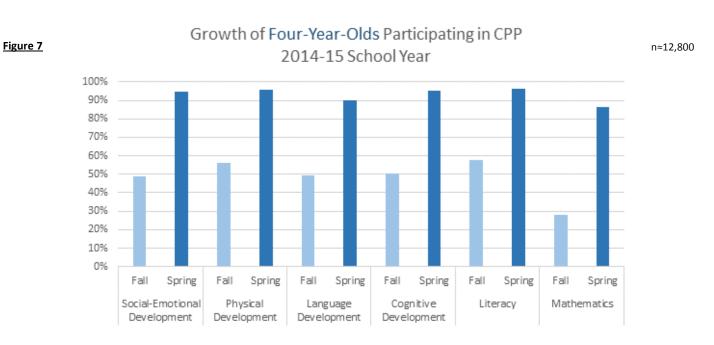


Colorado Preschool Program—Measuring Growth in the Preschool

All programs serving children funded through CPP use formative assessment to monitor progress and illustrate growth. Teachers and families observe children in the course of their everyday routines and activities and measure their progress between fall and spring in key areas of learning and development.

Figures 6 and 7 illustrate results for three-year-olds and four-year-olds who participated in CPP. Information is gathered to see whether children were below, meeting, or exceeding age expectations in the fall and in the spring. Results are then compared to illustrate growth achieved through the school year. In every domain, the percentage of children in CPP who meet or exceed age expectations increases significantly in the course of just one year.





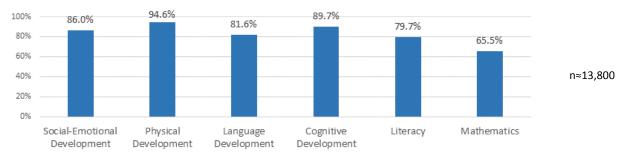


Colorado Preschool Program-Measuring Growth in the Preschool

Often there are different ways to analyze the same data. The results on p.8 demonstrate outcomes broadly across areas. However, CDE wanted a more sensitive method of measuring outcomes at the end of school year to help measure performance improvement over time. Figure 5 looks more specifically at indicators within each area. This chart shows the proportion of children who met expectations in *most* of the specific indicators within each area.

Four-Year-Olds Meeting Age Expectations in Most* Readiness Indicators in Each Area—Spring 2015





^{*}Defined as at or above the assessment's readiness benchmark in at least 80% of the objectives within an area. For instance, language development is comprised of eight objectives, so a child must meet the readiness benchmark in at least seven of the eight objectives to be considered "meeting age expectations" for language in this analysis.

Colorado Preschool Program - Long-Term Impact on Student Achievement

Changes in Reporting

In previous years, statewide longitudinal TCAP/ CSAP data has been presented as a part of the annual CPP report. CDE has been documenting longitudinal academic outcomes for a cohort of children participating in CPP since 2003-04 using annual statewide summative test results. This analysis has demonstrated that, on average, CPP graduates outperform other at-risk children who did not participate in CPP, even as far out as ninth grade. Because 2015 was the first operational year for the Colorado Measures of Academic Success (CMAS) and results from CMAS are not available in time for this report, we are taking this opportunity to highlight longitudinal results produced by local school districts themselves. In this section, we present districts' own stories with quotes taken from either the CPP Annual Report or direct interviews with CPP coordinators.

In the following stories, districts report how CPP graduates reading skills meet or exceed non-CPP graduates as measured by their reading assessments (Dynamic Indicators of Basic Early Literacy Skills [DIBELS Next], and Developmental Reading Assessment, 2nd Edition [DRA-2]).

Douglas County RE 1 (DCSD)

The DRA-2 Performance comparisons for the 2013-2014 academic year indicates that 67.6% of DCSD first grade children that qualified CPP and attended a DCSD preschool program were rated proficient in reading.

Only 57.2% of the first grade students that qualified free and reduced lunch, an indicator of education risk, who did not attend a DCSD preschool program rated proficient on the DRA-2.

McClave RE-2

In first grade, 88% of the former CPP students scored at or above the benchmark goal in DIBELS Next compared to 68% of the entire first grade class.





Colorado Preschool Program—District Success Stories

Cripple Creek-Victor RE-1

In a study of Cripple Creek's elementary-grade scores on the Northwest Education Association Nationally Normed Testing Protocols (NWEA MAPS), at-risk children were divided into two groups, those who participated in Colorado Preschool Program or Head Start (CPP/HS) and those who did not participate in these programs. Analysis of the results indicated:

- 81% of children who participated in CPP or Head Start scored average or high on "Number Sense."
- In comparison, only 60% of children who did not participate in CPP/HS met the same benchmark.
- Further, 19% of children in the low-scoring group were children who participated in CPP/HS compared to 40% of children who did not participate in CPP/HS.

These results indicate that CPP and the school district are helping prepare at-risk children for academic achievement through the district's School Readiness Plan.

Fountain 8

These charts show DIBELS Next scores for the entire Fountain-Ft. Carson school district population, including children who do not have risk factors present in their lives. In most cases, children who were identified as at-risk for academic failure in preschool (CPP) are doing as well or better than their same age peers. This is significant because it shows how the investment paid off for children in this district who received the benefit of a high quality preschool experience.

Figure 9

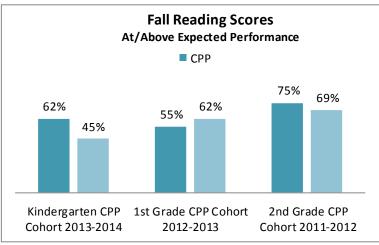
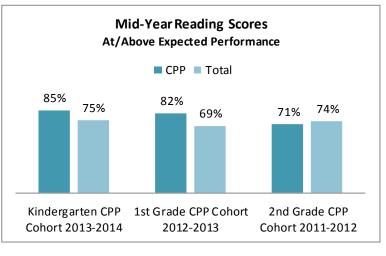


Figure 10



Tool: DIBELS Next



Colorado Preschool Program—District Success Stories

Denver County 1

Denver Public Schools (DPS) has measured scores on the Developmental Reading Assessment (DRA) and the Spanish equivalent (EDL) for many years. They determined that a certain score on Word Analysis tasks is particularly predictive of later school success. In fact, a child who demonstrates mastery of at least four of seven tasks on DRA2 Word Analysis has a 95% chance of being on track at the end of kindergarten and an 83% chance of scoring proficient on CSAP/TCAP (CMAS data is pending).

Armed with this knowledge, they have used this measure of school readiness to analyze differences between children funded by CPP in DPS (who by definition are generally the most at-risk children), children not funded by CPP who attended a DPS-operated preschool, and children whose preschool experience is unknown at the time of kindergarten entry.

Students scoring at level indicating Kindergarten Ready

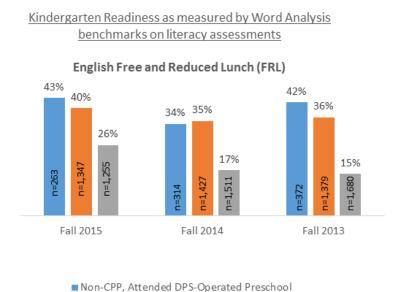
CPP

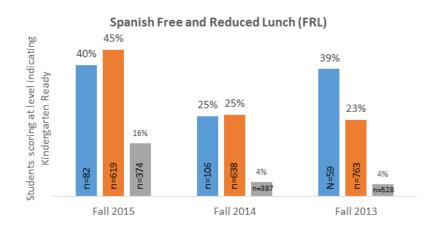
The following charts provide a summary of school readiness outcomes for the last three years for Kindergarten students eligible for free or reduced price lunch (FRL), aggregated by early childhood education experience and primary language (English versus Spanish). Note: as of Fall 2015, word analysis tasks from other literacy assessments like iStation and STEP are included in the calculations as well.

Across all years, CPP graduates outperformed children whose preschool experience was unknown. And in some cases, CPP graduates outperformed other children who attended a DPS-operated preschool (the majority of whom DPS would consider to be less at risk).



Figure 11





■ Preschool Experience Unknown



Colorado Preschool Program—Together with Families

Many school districts assess the long-term impacts of CPP funded preschool not only in terms of academic outcomes for children, but also in terms of positive outcomes for families. Family engagement and support is a critical component to a child's education. Numerous research studies have found that family engagement is linked to better student academic achievement (Henderson & Mapp, 2002). The following excerpts reveal the excellent work occurring throughout the state.

Eagle County RE-50: Families Volunteer

"Our family engagement committee, which includes teachers, teaching assistants, and family service coordinators, meet monthly to discuss family engagement needs and activities. Our committee has completed several projects. For example, the committee worked to encourage more parent volunteers by establishing a 'Helping Hands' poster on each parent communication boards that provide families ideas on how to volunteer. We also added a 'Volunteer of the Month' to spotlight a parent volunteer."

Liberty J-4: Families Support Learning at Home

"Our program provides rich learning opportunities for families to learn strategies for supporting their child's development and learning through our partnership with the Yuma County Early Childhood Council and the Rural Resource Center. These partnerships give the families the opportunity to access developmentally appropriate educational materials such as activity backpacks and learning tubs to use at home with their child."

Roaring Fork RE-1: Families Take Classes

"Out Family Resource Center offers a variety of parenting classes that are available, in English and Spanish, to Colorado Preschool Program families, including Parenting with Love and Logic and the Nurturing Parenting Program."

Fort Collins

Denver

Colorado

Springs Pueblo

Map data @2015 Goog

Boulder

COLORADO

Aspen

Adams-Arapahoe 28J: Families Transition

"RISE Colorado, a non-profit organization in Aurora, has partnered with two of our Child Development Centers and our newest birth to four center, Early Beginnings. The focus of their support is helping our refugee and immigrant families learn and understand the opportunity gap that faces many of our families as they transition to America and school in the United States. Families report increased understandings about the school district."

Park County RE-2: Families Communicate

"Our Facebook group has been one of the most popular ways to communicate with parents this year. We post parenting tips, information about local resources, and information about child development at least twice a week."

Springfield RE-4: Families Lead the Way

"Parent involvement is the expectation at Springfield Preschool. We have found that if you give families options, they will choose to participate in a way most comfortable to them. We actually coach parents from their first program orientation meeting that parents of preschoolers become parent council members, then school accountability committee members, then school board members. Recognizing that the investment in their child's education is modeled by their own investment."

Henderson, A. T. & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory.



Colorado Preschool Program—Together with Families

Families Report Satisfaction

Each program asks families to report their satisfaction. The following are but a few of the positive quotes reported by families receiving CPP services across the state.

Widefield 3

"The quality of the teachers and professionals was outstanding. I never questioned what my daughter was taught and I felt comfortable leaving my child at school. I knew she was cared for and safe."

Woodland Park RE-2

"Great teachers, thank you for educating our son. This program is a godsend. Preschool staff is amazing. My son learned a lot."

Custer County School District 1

"The preschool is a real benefit to our community. It has given my child a good introduction to school and the learning process. Our experience has been extremely positive at preschool."



Ellicott 22

"I appreciate the support for my child and willingness to offer activities to support learning from home"

Cherry Creek 5

"My son has been able to make friends, which is something he has always had trouble with."

Sierra Grande R-30

"The program and the staff are both wonderful. I've had two children attend the program and they both loved it."

Fowler R-4J

"The teachers are very knowledgeable in the field and educate the kids on a whole new level. I love how my child was pushed in his academic career. He has learned so much about a variety of subjects that are introduced. I'm very thankful for all the hard work, dedication and extra time spent by the teachers of the program."

Greelev 6

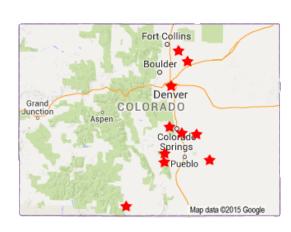
"We are so thankful and grateful that our boys had the opportunity to be in this preschool program. We were becoming concerned that our boys would not be ready for kindergarten, and the structure and care of the teachers has been an incredible help. We continue to be shocked and amazed by how much they are learning!"

Weld County SD RE-8

"They take my child's best interests at heart and put him first. My child has grown so much academically, socially and in behavior"

Canon City RE-1

"This program helped my child be more comfortable in social settings and helped her to be prepared for school."





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Elliot Asp

Interim Commissioner of Education
Secretary of the State Board of Education

Submitted to the Colorado General Assembly on January 15, 2016

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