

DENVER PRESCHOOL PROGRAM'S LONGITUDINAL ANALYSIS FOR THIRD GRADERS IN THE 2014-2015 SCHOOL YEAR AGAIN CONFIRMS **DPP GRADUATES OUTPERFORM THEIR NON-DPP PEERS IN ELA/LITERACY AND MATH**

The Denver Preschool Program (DPP) makes quality preschool possible for all Denver families, regardless of income or neighborhood, through a dedicated sales tax first approved by voters in 2006 and renewed in 2014. As of the 2014-2015 school year, DPP has provided more than \$67 million in tuition support, which has helped over 36,000 4-year-olds attend a quality-rated preschool of their family's choice. Furthermore, DPP has invested more than \$10 million in quality improvement of its 250 plus preschool partners; a growing list that includes community-based centers, home-based centers and Denver Public Schools (DPS) preschool classrooms.

Purpose of Longitudinal Report

DPP completes an annual longitudinal analysis to determine if children who participated in the program were more likely to succeed in kindergarten and early elementary school. Conducted by Augenblick, Palaich and Associates (APA)¹ the analysis compares how former DPP students performed on Colorado's third grade standardized achievement tests to those who did not have DPP experience. It also takes into account the following demographic variables: race, Free and Reduced-Price lunch (FRPL) eligibility and English Language Learner (ELL) status.

Why Third Grade?

According to numerous studies on predictors of academic success, third grade is a critical point in a child's education. Children who have mastered basic skills in reading, writing and math by the end of the school year are more likely to graduate high school, whereas those who have not are more likely to fall—and stay—behind. Consequently, DPP gathers information to help educators, policymakers and the community understand preschool's long-term benefits.

A TURNING POINT: **PARCC VS. TCAP**

This report marks a key transition in Colorado's education assessment framework. In 2014, the Colorado Department of Education joined a consortium of states known as the Partnership for Assessment of Readiness for College and Career (PARCC) with the intent of creating more rigorous tools to learn if students are on track for college and career success. Consequently, the Transitional College Assessment Program (TCAP), Colorado's former standardized achievement test, was discontinued.

Unlike the TCAP, these new assessments in English language arts (ELA)/literacy and math are fully aligned with the Colorado Academic Standards (CAS); a set of guidelines adopted by the Colorado State Board of Education in 2009 that outline what knowledge and skills students should have by the end of each grade level. Because these guidelines deliberately established a higher baseline for proficient academic performance, PARCC scores cannot be directly compared to TCAP scores and may appear lower.

Comparison of TCAP and PARCC Exams

| | TCAP | PARCC |
|---------------------------------------|---|---|
| <i>Time Period</i> | 2012/13 - 2013/14 school years | 2014/2015 school year |
| <i>Developed By</i> | Colorado | National PARCC Consortium |
| <i>How Administered</i> | Paper and Pencil | Online |
| <i>Scoring Scale</i> | 150-900 | 650-850 |
| <i>Proficiency Categories</i> | Four Categories: Unsatisfactory; Partially Proficient; Proficient; and Advanced | Five Categories: Does Not Meet Expectations; Partially Meets Expectations; Approaches Expectations; Meets Expectations; and Exceeds Expectations |
| <i>Standards Alignment</i> | Colorado standards for language arts, math & science | Common Core Standards |
| <i>Opt-out Policies</i> | Law did not allow parental opt-out. | Policies vary by district. Opt-out rates for 2014-2015 school year were higher in grades seven and above, with up to 31 percent of students opting out statewide. |
| <i>Typical Language Arts Question</i> | Here is a word. Pick a synonym from a list of five choices. | Select definitions for words as those words are used in the context of reading passages. |
| <i>Typical Math Question</i> | Select the correct answer. | Select the correct answer and explain the mathematical reasoning. |

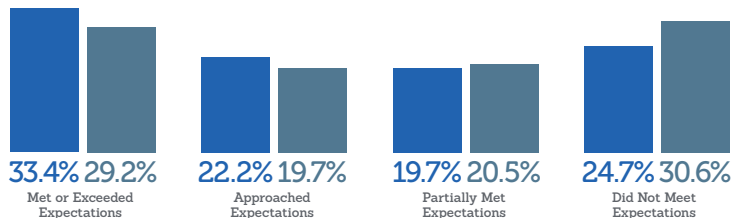
FINDINGS

2015 Third Grade PARCC ELA/Literacy and Math Assessment Results

The first iteration of the PARCC assessment was administered to third grade students in the spring of 2015. Included in this group are students who were enrolled in a DPP classroom during the 2010-2011 school year, also known as the 2010-2011 DPP cohort. Overall, of the approximate 7,000 students who completed the ELA/literacy and/or math assessment, nearly half were DPP graduates (49 percent).



Despite the aforementioned change in standards, DPP graduates continue to outperform their non-DPP peers.

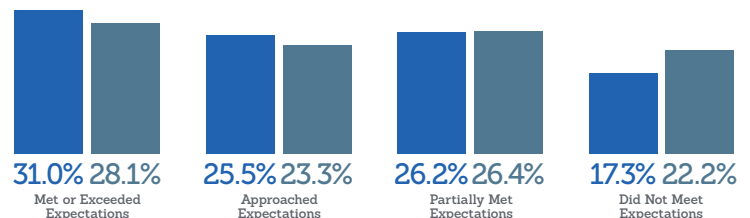


Distribution of Students by DPP status and proficiency in PARCC ELA

DPP third graders were 4 percent more likely to “Meet or Exceed Expectations” on the PARCC ELA/literacy assessment than non-DPP third graders in 2015 as well as 6 percent less likely to receive scores of “Does Not Meet Expectations.”

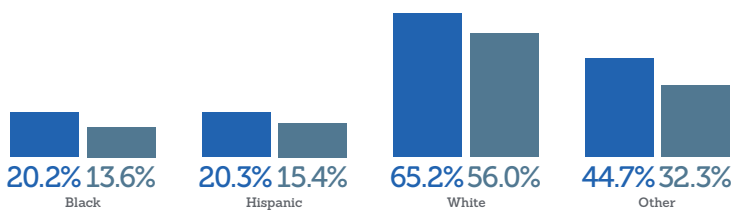
Distribution of Students by DPP Status and proficiency in PARCC math

Thirty-one percent of DPP students scored “Met or Exceeded Expectations” in math compared to 28 percent of non-DPP students, a 3 percent difference. DPP students were 5 percent less likely to receive scores low enough to “Not Meet Expectations.”



2015 Third Grade PARCC English Language Arts Results

The following charts show how well former DPP students performed on the ELA/literacy assessment by race, income and home language compared to their non-DPP peers.

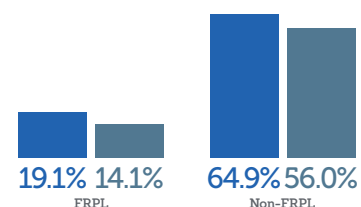


Percentage of students passing PARCC ELA by DPP status & race

DPP students across all races were more likely than non-DPP students to pass the PARCC ELA/literacy assessment.

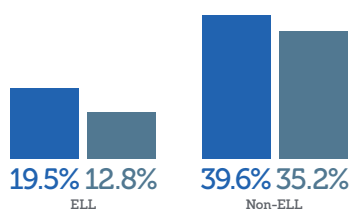
Percentage of students passing PARCC ELA by DPP & FRPL status

DPP students who qualified for Free and Reduced-Price Lunch (FRPL) outperformed their non-DPP peers who also qualified for FRPL.



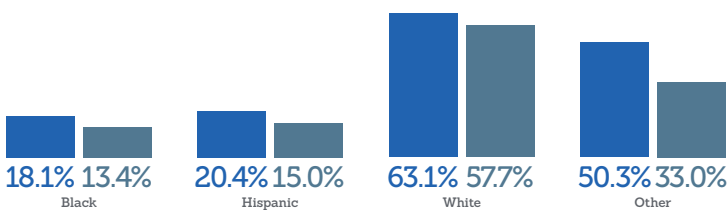
Percentage of students passing PARCC ELA by DPP & ELL status

DPP students who identified as English Language Learners (ELLs) were nearly 7 percent more likely to attain the highest achievement level on the third grade PARCC in ELA/literacy than their non-DPP ELL peers.



2015 Third Grade PARCC Math Results

The following charts show how well former DPP students performed on the math assessment by race, income and language compared to their non-DPP peers.

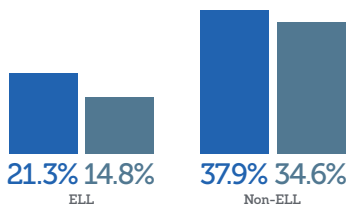
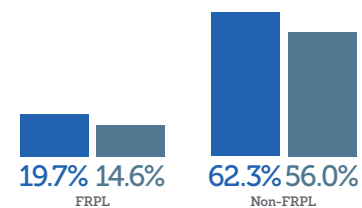


Percentage of Students passing PARCC math by DPP status & race

Both Hispanic and White third graders who participated in DPP during the 2010-2011 school year were approximately 5 percent more likely to achieve higher math scores than non-DPP graduates of the same racial identity.

Percentage of students passing PARCC math by DPP & FRPL status

Low-income DPP graduates were approximately 5 percent more likely to earn scores in the highest category.

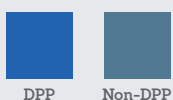


Percentage of students passing PARCC math by DPP & ELL status

ELL and non-ELL DPP graduates both demonstrated superior math skills than ELL and non-ELL students who did not attend a DPP preschool classroom.

How School Quality Affected Scores

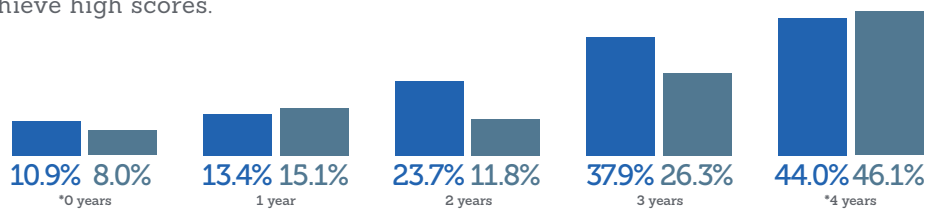
The evaluation also looked at elementary school quality (as assessed by Denver Public Schools' School Performance Framework) and length of enrollment to see if either factor influenced the rate in which former DPP students passed the PARCC assessments.



*Indicates differences that are not statistically significant.

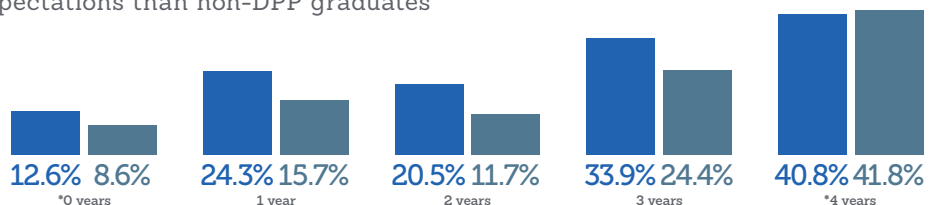
Percentage of students passing PARCC ELA by school quality

Although DPP graduates who attended a high-performing school for one year were almost 2 percent *less-likely* to pass the ELA/literacy assessment, those who attended for two or three years were at least 11 percent more likely to achieve high scores.



Percentage of students passing PARCC math by school quality

DPP graduates who attended a high-performing elementary school for one to three years were between 8 and 10 percent more likely to meet or exceed expectations than non-DPP graduates





DENVER PRESCHOOL PROGRAM CHILDREN **ARE NOT LOSING GROUND**

PARCC was deliberately designed to provide parents and educators a clearer picture of students' progress toward attaining the skills necessary to be successful later in life. While the transition has produced scores that appear to indicate poor performance compared to previous years, former DPP students are not losing ground; this analysis shows they continue to outperform their peers. Overall the evaluation provides compelling evidence that strongly suggests:

- **DPP is associated with higher achievement on third grade standardized achievement tests.**
- **Students who participated in DPP the year before kindergarten are more likely to meet or exceed expectations on both the PARCC ELA/literacy and math assessments across all races, FRPL eligibilities, and ELL statuses.**

Looking at how well students perform across demographic variables and DPP status simultaneously helps educators, schools and states find areas for targeted improvement to ensure kids are ready for the classroom and career.

Denver Preschool Program

The Denver Preschool Program (DPP) is a taxpayer-funded 501(c)3 nonprofit organization that provides tuition support to all Denver families with a 4-year-old attending preschool in the year prior to kindergarten. Tuition credits are awarded based on a sliding scale, which takes into account a family's income, household size and the quality rating of the chosen preschool program. Families can choose from more than 250 licensed preschool programs.

DPP provides financial support to its more than 250 licensed preschool partners to offset the cost of programming and obtaining state-approved quality ratings. Additionally, DPP offers early childhood educators access to professional development opportunities to help strengthen teacher-child interactions, which DPP believes plays an important role in the academic and social-emotional development of children.

¹ A copy of the full report can be viewed at <http://dpp.org/results-and-research/our-results>

² Hernandez, D.J. (2011) Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation. *The Annie E. Casey Foundation*