



Denver Preschool Program Operations Evaluation: 2016-2017 Program Year
Denver, Colorado

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EXECUTIVE SUMMARY

Overview

Since it was approved by voters in 2006, the Denver Preschool Program (DPP) has offered tuition credits to all Denver families with a 4-year-old who attends a participating DPP preschool. Through these tuition credits and related quality improvement supports for participating preschools, DPP works to increase children's access to high quality preschool.

The Butler Institute for Families at the University of Denver conducted evaluation activities for the 2016-2017 program year to assess the extent to which DPP's services increased 4-year-old children's access to quality preschool in Denver. The evaluation included surveys of families who received a tuition credit during the program year, participating DPP providers, as well as surveys of eligible families and providers who chose not to participate in DPP. The evaluation also included an analysis of DPP provider quality ratings. This Executive Summary provides an overview of the findings from this evaluation. For more details, please refer to the full report.

During the 2016-2017 program year, **245 early care and education programs** participated in DPP and 4,997 families applied to DPP to receive tuition credits for their child's last year of preschool before kindergarten – this represents about 61 percent of Denver's 4-year-olds.

The **largest proportion of children participating in DPP (68 percent) attended Early Childhood Education (ECE) classrooms within Denver Public Schools (DPS)**. The remaining children attended community preschools not affiliated with DPS. **Over half of the families participating in DPP had annual incomes below \$30,000**, and the largest proportion (43 percent) were Hispanic.

Family Access

One of the primary goals of DPP is to provide all Denver 4-year-olds with access to high quality preschool. Survey results indicate ongoing progress toward this goal during the 2016-2017 year. In particular, **the majority (89**



percent) of families reported that they were able to access their first choice preschool for their child's 4-year-old year. Three-quarters of DPP children also attended preschool for their 3-year-old year, and over one-third of those changed to a different preschool in their 4-year-old year. This may suggest that many families may not have been in their first choice of preschool for their child's 3-year-old year, but were able to make that switch for their child's 4-year-old year. The top three reasons parents reported for changing their child's preschool for the 4-year-old year were to increase kindergarten readiness, enroll in a better quality preschool, and to have siblings at the same school.

Indeed, **more than one-third of parents reported that they would not have been able to send their child to their current preschool without the DPP tuition credit.** The numbers reporting this were significantly higher for some families than others, based on region, income, race/ethnicity, home language, and preschool type. In particular, the families with the following characteristics were significantly more likely to report that the tuition credit was important for them to send their child to preschool:

- Southwest Denver residence
- Lower incomes
- English as a second language
- Hispanic/Latino ethnicity
- Child attending a DPS preschool



Preschool quality was similar for all DPP families, regardless of region, home language or race/ethnicity, and the average Colorado Shines rating (the state of Colorado's Quality Rating and Improvement System (QRIS)) for DPP preschools was approximately 4.0. Average Classroom Assessment Scoring System (CLASS®) scores were 6.0 for the classroom organization domain, 6.4 for emotional support, and 2.8 for instructional support.

The majority of DPP providers (65%) are **high quality**, with a Colorado Shines rating of either 4 or 5.

Quality levels are somewhat higher for DPS preschools than for community preschools.

Based on Colorado Shines ratings, **lower income families tended to attend highly rated schools more so than their high income peers**. While this may initially seem counterintuitive, it could be that lower income families have additional subsidy options that make the higher quality preschools ultimately more affordable. This may be a particular issue for middle-income families who make too much to qualify for means-tested subsidies, but do not independently make enough to afford the highest quality preschools. It may also be that higher income families are less attuned to the quality ratings and make their decisions more based on word-of-mouth than published ratings. Another factor that may explain this finding are that schools that receive federal and state funds to serve low-income children (e.g., Head Start) are required to have higher quality standards.

In general, **families prioritized location as a key factor in preschool selection, followed by good teachers**, and when tours were taken, interactions between students and teachers. Quality ratings rose to the top as a factor in the absence of tours or personal experience with the preschool. Survey results suggest that there is a lack of awareness of quality ratings or accreditation among most families; instead, perceptions of quality are much more commonly based on community reputation and word-of-mouth.

Despite the low awareness of quality ratings, most parents (72 percent) felt knowledgeable about DPP itself and how it works. Some parents, though, were not aware that they received a tuition credit; virtually all of these parents had children attending DPS, which bundles DPP applications with ECE enrollment forms and does not print the tuition credit amount on ECE invoices to parents. As a result, it seems that some families are enrolled in DPP without being fully aware of their participation or the benefits DPP provides. Hispanic, Spanish-speaking parents from southwest Denver expressed the least knowledge about the tuition credits, suggesting a need for increased targeted outreach for these families, in particular.



Quality Improvement

In addition to improving family access to preschool, the other primary function for DPP is improving the quality of preschool options available to 4-year-olds in Denver. Evaluators used a survey of DPP providers and an examination of CLASS® and Colorado Shines scores to assess progress toward this goal.

The survey of DPP providers identified some notable differences in infrastructure and administrative capacity between DPS and community preschools that likely impact their awareness and perception of DPP quality improvement services. In particular, community preschools were more likely to:

- identify low student enrollment as a problem in their schools,
- perceive the DPP application process and ongoing paperwork to be a burden, and
- request administrative help from DPP.



At the same time, compared to their DPS peers, community preschools also reported higher participation in activities to recruit families to DPP, more comfort explaining the tuition credits to families, and greater understanding DPP's menu of quality improvement services. Challenges for both DPS and community preschools included teacher turnover and insufficient compensation, as well as leadership turnover. Additionally, DPS schools have administrative infrastructure that many community preschools do not have. The administrative infrastructure of DPS has upsides, like reduced paperwork burden for individual classroom teachers, but also downsides, including a lack of understanding of quality improvement supports available through participation in DPP.

DPP Quality Improvement Resources

- CLASS® assessments
- Coaching
- Curriculum and assessment cost assistance
- Financial achievement awards
- Financial assistance with materials and equipment
- Free marketing/access to marketing materials
- Funding for quality ratings
- Introduction to quality ratings process
- Professional development and training
- Quality Improvement Navigators
- Quality improvement newsletter
- T.E.A.C.H.® scholarships for early childhood college coursework

Quality Improvement Resources

Across DPP preschools, participating programs used an average of five quality improvement (QI) resources during the 2016-2017 program year and generally found them to be moderately or very helpful.

Overall, ratings of QI resources were high and positive, however, there were some exceptions that may point to areas for change or further exploration in the future:

- Contact with QI navigators, who support programs in utilizing their QI resources and navigate the quality rating process, and DPP coaches, who provide onsite coaching to both teachers and directors on early childhood education best practices, was inconsistent. While a majority of community preschool programs (61 percent) reported having contact with their navigators monthly, approximately one-third connected with them only twice a year or less. (For DPS, QI navigation occurs at the district level.) Across all preschools (community and DPS), **one-fourth of programs reported meeting with their coach once a year or less** and 23 percent of programs reported that the amount of coaching they received was not enough. According to DPP administrators, this is something DPP has tried to address this during 2017-2018 by significantly increasing the number of coaching hours available to programs.
- Although the QI resources that programs believed most improve preschool quality were financial assistance with materials and equipment, and assistance with curriculum or child assessment costs, respondents reported that **the most frequently utilized resources were coaching, professional development/training, and CLASS® assessments**.
- Average ratings of the CLASS® assessment process were fair to good (2.8 on a 4-point scale) in all areas surveyed, indicating general satisfaction, but room for growth on the timing of observations, supporting programs to use CLASS® feedback, and the quality and timing of that feedback.

There was a statistically significant difference in perceptions of QI resources based on preschool type and the position of the respondent. In particular, community preschools used more resources and rated those resources higher than did DPS preschool programs. By position, administrators reported higher use of resources and perceived those resources to be of higher quality than did lead teachers who responded to the survey.

Colorado Shines and CLASS® Ratings

In addition to examining survey data, the evaluation also looked at actual Colorado Shines and CLASS® ratings to assess what factors might be driving rating levels. Results showed that, on average, DPS preschools have higher Colorado Shines and CLASS® ratings than their community counterparts. Additionally, larger preschool programs tended to have higher Colorado Shines ratings and scores in the CLASS® domain of classroom organization. Both of these factors suggest that **program size and related infrastructure impact a preschool's ability to achieve**



higher quality ratings. The analysis also showed that providers with lower ratings are using more QI resources; this is likely because these preschool programs are offered more coaching hours, support from QI navigators, and QI dollars. It is also appears that these programs are trying to make full use of DPP QI supports to improve their ratings.



Summary of Recommendations

Based on the results of this year's DPP evaluation, the evaluation team has developed several recommendations to continue to support the access of Denver's 4-year-olds to quality preschools. These recommendations are outlined in the accompanying graphic and are explained in greater detail in the full report.

Denver Preschool Program

- ☐ Target outreach to Southwest Denver, low- income, Hispanic/Latino, and non-English speaking families
- ☐ Build in additional administrative support to community preschools
- ☐ Continue outreach to non-DPP preschools to increase awareness of benefits of participation

Coaches/Navigators

- ☐ Increase consistency of coaching and quality navigator contacts across preschools
- ☐ Increase coaching follow-up and feedback based on CLASS[®] ratings

Community Preschools

- ☐ Bundle DPP application with preschool enrollment forms

Denver Public Schools

- ☐ Print DPP tuition credit on families' ECE invoices
- ☐ Share information with ECE teachers about DPP processes and QI resources

Evaluation

- ☐ Explore discrepancy between most valued vs. most utilized QI resources
- ☐ Research distribution of preschool quality by neighborhood
- ☐ Examine disparity in quality based on family income level



INTRODUCTION

The Denver Preschool Program (DPP) supports Denver families by offering tuition credits to increase access to high quality preschool. Tuition assistance is available to all families with a 4-year-old who live in the City and County of Denver and attend a participating DPP preschool. The amount of tuition credit each family receives is based on a sliding scale based on the family's income and household size, quality rating of the preschool, and the length of day a child attends. DPP also works to improve the quality of preschools in Denver by providing a menu of quality improvement (QI) resources to participating programs. DPP is also a national advocate and example for expanding access to early childhood education. DPP is funded by City and County of Denver sales tax, which was first approved by Denver voters in 2006 at 0.12 percent and then reauthorized and increased in 2014 to 0.15 percent.

Table 1. DPP Tuition Tiers

Income Tiers	Federal Poverty Level (FPL)
Tier 1	< 100% FPL
Tier 2	100% - 185% FPL
Tier 3	185% - 225% FPL
Tier 4	225% - 300% FPL
Tier 5	> 300% FPL
Opt Out	N/A

DPP's Quality Improvement Resources: 2016-2017

- Coaching support
- Professional development trainings
- Technical assistance from a quality improvement navigator
- Funds for resources (e.g., learning materials)
- Teacher, director, and program achievement awards

Since fall 2016, the Butler Institute for Families at the University of Denver has partnered with The Implementation Group to conduct an evaluation of DPP's program operations. This operations evaluation is designed to assess the extent to which DPP's services result in children's access to quality preschool. (DPP's other evaluation projects focus on child-level outcomes.) Specifically, the operations evaluation explores:

- how DPP implements its services,
- families' and providers' perceptions of DPP's effectiveness,
- knowledge and behavior changes resulting from the services, and
- the impact of DPP services on family access and provider quality.

The operations evaluation also has a focus on evaluating implementation fidelity and on supporting DPP with data utilization and continuous quality improvement.

To evaluate DPP's program operations, we collect a variety of qualitative and quantitative data from stakeholders including DPP parents and preschool staff, parents and preschools who are not participating in DPP, and quality improvement coaches and navigators. We also analyze program records and meet with DPP staff to track DPP program implementation fidelity and support decision making.

This report provides information about the preschools and families served during the 2016-2017 school year and families' and preschools' perceptions of DPP's services. Results are based on program records and parent and preschool staff surveys, as well as interviews with preschool staff. A second, supplemental report will be released in early 2018 that will explore DPP administrative data on tuition credits and quality improvement resources. This will include describing the DPP services delivered during the 2016-2017 school year and examining them by school and family characteristics.



METHODS

Primary Data

During the 2016-2017 school year, we conducted a survey with DPP parents and preschool programs, as well as with parents and preschools that are not part of DPP. Surveys developed in prior years were adapted for this year's evaluation by the Butler Institute with feedback from DPP staff. We also conducted interviews with a small number of DPP preschools this year. Details about the data collection and measures used are provided below.

DPP Preschools

Survey. Butler sent surveys to preschool directors at all currently active DPP preschools ($n = 254$) between March and May 2017 via Qualtrics, an online survey platform. Preschool directors were given the option to forward the survey to another knowledgeable staff member. Survey participants received a \$20 gift card incentive. We sent weekly email reminders through April 11, 2017. Preschool programs that had not completed the survey by April 18, 2017 ($n = 75$) also received reminder phone calls. A total of 208 preschool programs took the survey, with a response rate of 82 percent. Table 2 shows the characteristics of providers who took the survey.

The survey included 101 multiple choice and open-ended questions about preschool characteristics, as well as feedback on DPP's enrollment and recruitment process, QI resources, tuition credits and reimbursement, and overall views of DPP. Open-ended survey responses can be found throughout this report.

Interviews. The evaluation team also conducted follow-up interviews with staff from DPP preschools to inform quality improvement resource offerings for the 2017-2018 school year. Preschool programs were selected based on their reported use of QI resources, views of QI resources, and type of preschool. A total of five preschool programs participated in an interview (one DPS and four community providers).

Interviews lasted about 30 minutes and included questions regarding QI resources in general, as well as questions regarding specific resources like coaching, QI navigators, professional development, and quality rating systems. Participants received a \$25 gift card. Qualitative responses from the interviews can be found throughout this report.

Table 2. 2016-2017 Survey: DPP Preschools ($n = 208$)

Preschool Type

Community, center-based: 58%
Community, home-based: 6%
Denver Public Schools (DPS): 36%

Years Preschool Has Been in Operation

Less than 1 year: 2%
1-less than 5 years: 10%
5-less than 10 years: 15%
10 or more years: 73%

Average Number of 4-Year old Children per Preschool

Receiving Credit: 18 children
Not Receiving Credit: 11 children

Average Number of...

4-year-old children: 30
Classrooms: 3
Lead Teachers: 3
Assistant Teachers: 3

Survey Participant's Position Tenure

Less than 3 years: 30%
3-less than 5 years: 17%
5-less than 10 years: 22%
10 or more years: 31%

Survey Participant's ECE Tenure

Less than 3 years: 2%
3-less than 5 years: 5%
5-less than 10 years: 16%
10 or more years: 77%



DPP Parents

We sent DPP parent surveys to a sample of families with a 4-year-old child enrolled at a DPP school during the 2016-2017 school year, which was stratified to be representative of the overall population of families by tuition tier, school type (community or DPS) and region of the city. The sample was generally similar to the overall population. For more information about sampling, see Appendix A.

The parent survey included 67 multiple choice and open-ended questions, which involved parents' feedback on preschool in general, DPP's enrollment and recruitment processes, tuition credits, and overall views of DPP.

Data collection took place from mid-March through early June 2017. Initially, we mailed paper surveys to a sample of 650 parents and sent the survey via Qualtrics to any parent with an email address on file ($n = 419$). (Note: any duplicate responses by mode of survey administration were removed prior to analysis.) Parents who had not taken the survey received a reminder postcard in April ($n = 507$) and up to five reminder emails (if an email address was available).

In May, we also made follow-up phone calls to parents from strata with lower response rates (including families from DPS schools, tuition tiers 1 and 2, and who reside in the northwest and southwest regions; $n = 92$). We also sent the survey to an additional sample ($n = 119$) from the strata with lower response rates to ensure that the sample was representative of the overall population.

Table 3. DPP Parent Survey Demographics ($n = 290$)

Family Tuition Tier	Child Race/Ethnicity
Tier 1: 28%	White (Not of Hispanic Origin): 41%
Tier 2: 20%	Hispanic: 37%
Tier 3: 7%	Black (Not of Hispanic Origin): 10%
Tier 4: 6%	Other/Unknown: 10%
Tier 5: 26%	Asian or Pacific Islander: 1%
Tier 6: 13%	American Indian/Alaskan Native: 1%
Home Language	Region (where family resides)
English: 81%	Northeast: 48%
Spanish: 19%	Southwest: 26%
Preschool Type	Northwest: 15%
Community: 32%	Southeast: 11%
DPS: 68%	
Preschool Schedule	Preschool's Colorado Shines Rating
Full Day: 66%	Rating 2: 6%
Part Day: 21%	Rating 3: 8%
Extended Day: 13%	Rating 4: 76%
	Rating 5: 10%

Table 3 shows demographic information about parents who took the survey and the schools their child attended.



Non-DPP Preschools

Table 4. Non-DPP Provider Demographics (*n* = 19)

Survey Participant's Position Tenure	Preschool Type
Less than 1 year: 10%	Home-based: 53%
1-less than 3 years: 11%	Center-based: 47%
3-less than 5 years: 11%	Years in Operation
5-less than 10 years: 15%	1-less than 5 years: 21%
10+ years: 53%	5-less than 5 years: 16%
	10+ years 63%
Survey Participant's ECE Tenure	Average Number of...
3 – less than 5 years: 11%	4-year-old children: 11
5 – less than 10 years: 10%	Classrooms: 1
10+ years: 79%	Lead Teachers: 2
	Assistant Teachers: 1

We also gathered feedback from preschools that are not currently participating in DPP. The non-DPP preschool survey included 49 multiple choice and open-ended questions, which involved asking non-DPP preschool staff about their organization's characteristics, QI resources, quality ratings, and overall views of DPP.

We mailed a paper survey to a random sample of 100 non-DPP preschool providers, stratified by geographic region in April, 2017. Follow-up included a postcard (*n* = 92) and phone reminders (*n* = 90). The survey officially closed on August 1, 2017 with a total of 19 responses. Participants received a \$20 gift card. Table 4 shows the characteristics of the respondents and organizations who took part in the non-DPP preschool survey.

Non-DPP Parents

To gather input from families of 4-year-olds who did not receive DPP tuition credits, a non-DPP parent survey included 67 multiple choice and open-ended questions asking for feedback on preschool in general, knowledge of DPP, views on the resources offered by DPP, and child care needs.

We used two techniques to recruit non-DPP parents:

- 1) Based on DPP records maintained by MetrixIQ, we identified parents who applied for DPP tuition credits, but whose child was not listed as "approved" or enrolled in a DPP preschool (*n* = 81). We mailed the survey to these parents in late April 2017. In May, we also emailed a link to an online version of the survey (if an email address was available).
- 2) We also used convenience sampling to reach out to parents of non-DPP preschoolers. This included distributing flyers about the survey through non-DPP preschools, family, friend, and neighbor (FFN) providers, schools, public libraries, and community-based organizations that serve children and families. A link to the survey was also posted on Butler's website and via Twitter.

The survey closed on August 1, 2017, at which time 25 parents had taken the survey. Notably, 15 of those parents actually had a child enrolled in a DPP school, and for an additional seven families, it was not possible to determine whether they attended a DPP preschool or not. A total of three parents appeared to in fact have their child enrolled in a preschool that was not participating in DPP, and feedback they provided is incorporated throughout the report. Families who completed the non-DPP family survey received a \$20 gift card as an incentive.



Secondary Data

The numbers and characteristics of preschools and students who participated in DPP during the 2016-2017 year (September 2016 through August 2017) were provided by MetrixIQ. When reporting on the number of approved DPP students, we included records that were categorized as “approved,” “approved incentive,” which means that they were approved without providing income information, and “approved inactive,” which includes students who were approved for this school year, but no longer attend the school ($n = 396$). For preschool program data, we removed duplicate records (by program name or site ID) and pending or inactive preschool programs that did not include a program name. Information about provider type (home vs. center) came from MetrixIQ and DPP program records. Information about families and preschools from previous years was obtained from past years’ annual reports.

Data about preschool quality, including overall CLASS® scores and Colorado Shines ratings, were obtained from DPP program records.

Analysis

Analyses included descriptive information, such as counts, percentages, and means. We also conducted bivariate analyses to determine whether parent and preschool program characteristics were related to survey respondents’ perceptions of DPP’s services or quality ratings.



RESULTS

Results are presented in the following section and include an overview of all families and preschools served by DPP, followed by results from surveys completed by samples of families and preschool programs.

Overview of DPP Families and Preschool Programs

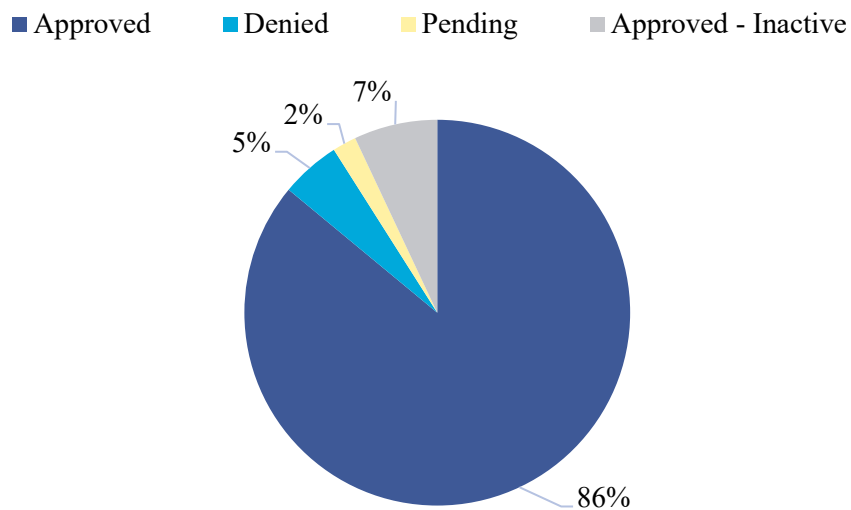
This section provides the numbers and characteristics of families and preschools served by DPP during the 2016-2017 school year, based on program records.

DPP Applications and Students

Application Status

DPP received a total of 5,373 student applications for the 2016-2017 school year, and 86 percent of those were approved to receive a DPP tuition credit (Figure 1). Some applications were categorized as “approved-inactive” because the application was approved, but the child no longer attended a DPP preschool (7 percent). Five percent of applications were declined, either because the family did not reside in the City and County of Denver, or because they did not have a 4-year-old child as of October 1, 2016 (the cutoff date in order for a child to enter kindergarten in Denver Public Schools the following school year).

Figure 1. Status of DPP's 2016-17 School Year Applications ($n = 5,373$)*



* < 1 percent of applications were categorized as “no response” and are not included in the chart.

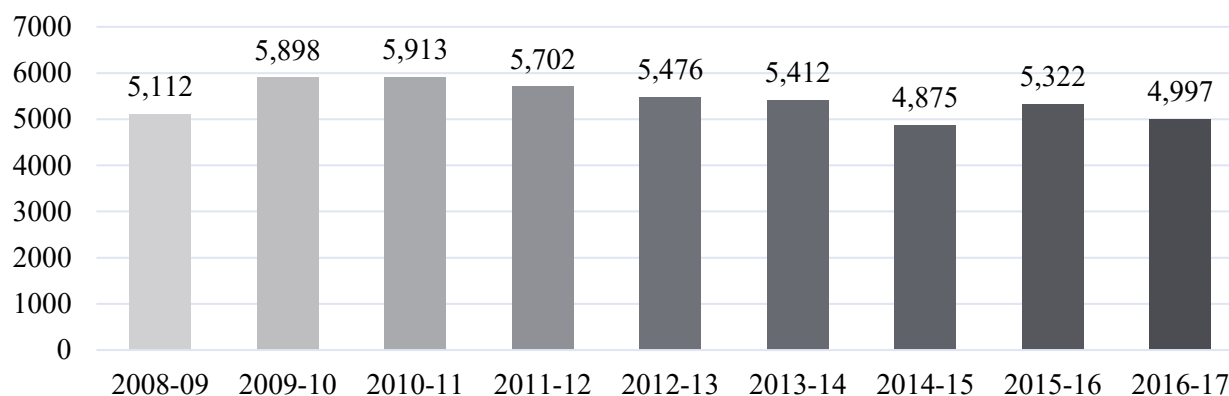


Application Trends

About 61 percent of eligible children applied to DPP in 2017. According to Kids Count (2016), the population of 4-year-olds in Denver County was 8,148 in 2010; this is the latest data available specific to 4-year-olds. The population of all children under 5 has remained fairly steady between 2010 and 2015, with a slight increase during that period (Denver Children’s Affairs, 2017). Therefore, we estimate that about 61 percent of eligible children applied to DPP.

A total of 4,997 students* (86 percent) were approved during the 2016-2017 school year (Figure 2), which is about 6 percent lower than 2015-2016 school year (5,485) and similar to the 2014-2015 school year (4,766). Primary reasons for not granting approval were family residency outside the City and County of Denver or children not meeting the age requirement. Overall, DPP enrollments have fluctuated between about 5,000 and 6,000 enrollments since the program began, with a gradual trend toward lower enrollments after a “spike” early on during the 2009-2010 school year.

Figure 2. Number of Approved DPP Student Applications by School Year, 2008-Present



*An updated MetrixIQ report showed a total of 4,999 students.

Preschool Type

By school type, most applications were for DPS preschools (68 percent), while 22 percent were for community center-based preschools (Table 5). Only about 1 percent of students attended home-based providers. Notably, some families received a tuition credit for more than one preschool (see box, below for more information).

Table 5. DPP Approved Applications by School Type

School Type	Number	Percentage
DPS	3,389	68%
Community - Center	1,134	22%
Community - Home*	24	< 1%
Both	117	2%
Missing	336	7%
Total	4,997	100%

DPP application records listed more than one preschool for **352** students.

This includes both students who

- changed schools, and
- attended more than one school at the same time (*e.g., on alternate days or afterschool*)



Preschool Quality

About three-quarters of DPP students attended a school with a Colorado Shines rating of “4,” according to ratings data obtained from DPP in November 2017. Focusing on DPS students, the proportion of students attending a school rated as a “4” was even higher (86 percent), while it was lower for community preschools. Results are shown in Figure 3.

It is not possible to directly compare quality ratings from previous years because this is the first year in which Colorado Shines ratings are available for most programs, after making the transition from the Qualistar Rating™ to Colorado Shines ratings in past years. See the box (right) for information about Colorado Shines ratings.

Colorado Shines

Colorado Shines rates early learning programs using five levels: ¹

Level 1:

- ✓ State license

Level 2: Level 1 requirement, and

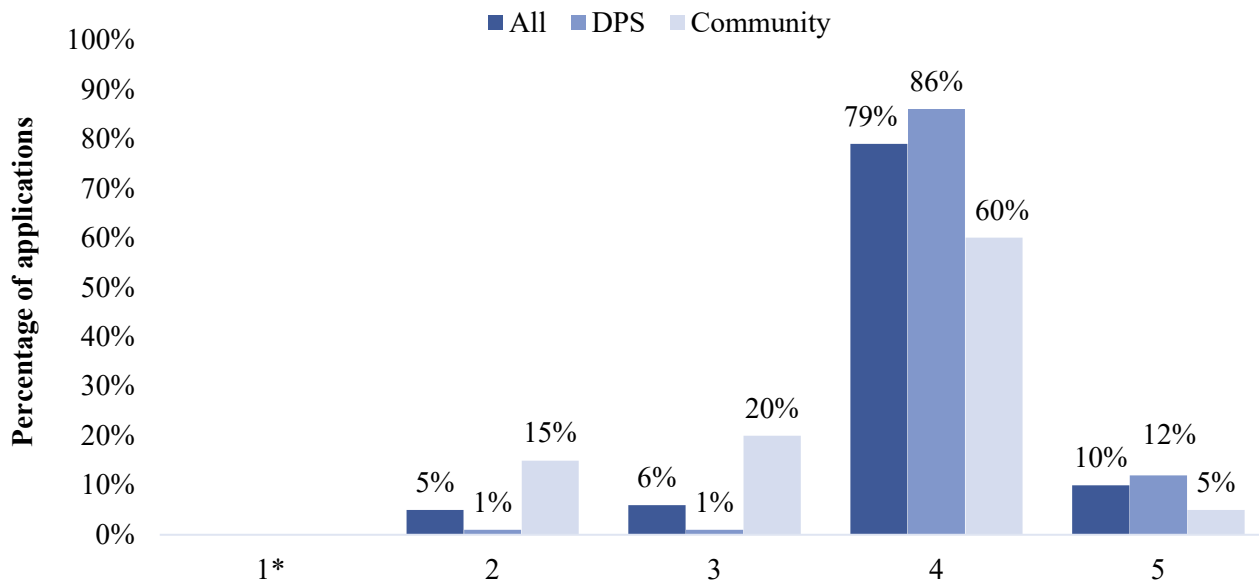
- ✓ Quality improvement plan,
- ✓ Level 2 Quality Indicator Program Assessment,
- ✓ Level 2 E-learning courses, and
- ✓ Staff registered in the Professional Development Information System (PDIS).

Levels 3-5: Level 2 requirements, and

- ✓ Assessed and rated on: 1) workforce qualifications, 2) family partnerships, 3) administration, 4) learning environment, 5) child health and the Environment Rating Scale(s)

¹ <http://coloradoshines.force.com/programs?p=Your-Program-Colorado-Shines>

Figure 3. DPP Students by Colorado Shines Rating: Overall and by School Type



*Less than 1 percent of children were listed as attending a school with a rating of “1.” Ratings data is not reported for students who did not have a school listed in MetrixIQ data ($n = 348$), or whose school was inactive ($n = 43$). Ratings data by school type does not include students who attended both community and DPS schools ($n = 117$).



Child and Family Characteristics

Sex and race/ethnicity. The figures below show the sex, race, and/or ethnicity of the children represented in approved DPP applications for the 2016-2017 school year (Figure 4 and 5). There were roughly equal proportions of male and female children. Nearly one-half of children were identified as Hispanic (43 percent), 29 percent were White, and 12 percent were Black. Asian or Pacific Islander, American Indian or Alaska Native, and children identified as other races/ethnicities comprised less than 10 percent of DPP applicants each.

Figure 4. 2016-2017 DPP Approved Applications by Child's Sex (n = 4,997)

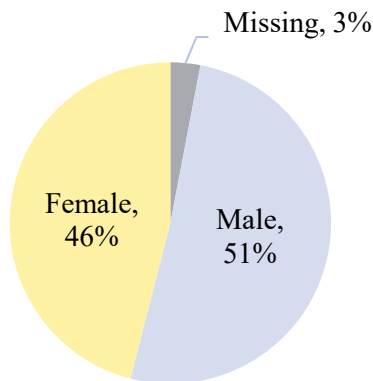
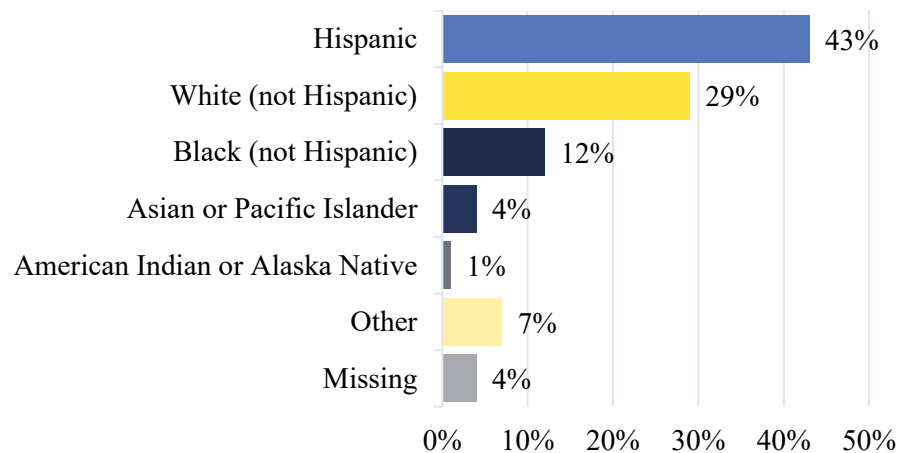


Figure 5. 2016-2017 DPP Approved Applications by Child's Race and Ethnicity (n = 4,997)



Trends in student race and ethnicity. Historical data on the race and ethnicity of DPP students are provided in Table 6. Overall, it appears that there has been a decline in the proportion of Hispanic students over time (55 percent in 2007-2008 versus 43 percent in 2016-2017). Conversely, the proportion of White (not Hispanic) students has increased over time (from 22 percent to 29 percent). This could be due to demographic shifts in Denver over the same time period or may reflect other barriers to access for Hispanic families.

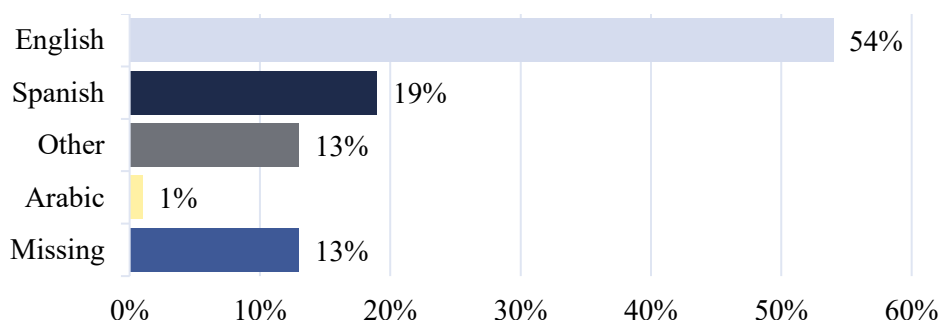
Table 6. DPP Approved Applications by School Year and Race/Ethnicity

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
American Indian or Alaska Native	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Asian or Pacific Islander	2%	3%	3%	3%	3%	3%	3%	4%	3%	4%
Black (not Hispanic)	9%	13%	13%	13%	13%	13%	12%	12%	13%	12%
Hispanic	55%	52%	49%	51%	53%	50%	48%	46%	44%	43%
White (not Hispanic)	22%	20%	27%	27%	26%	25%	28%	28%	29%	29%
Other/Missing/Not Provided	11%	11%	7%	5%	4%	8%	8%	9%	10%	11%



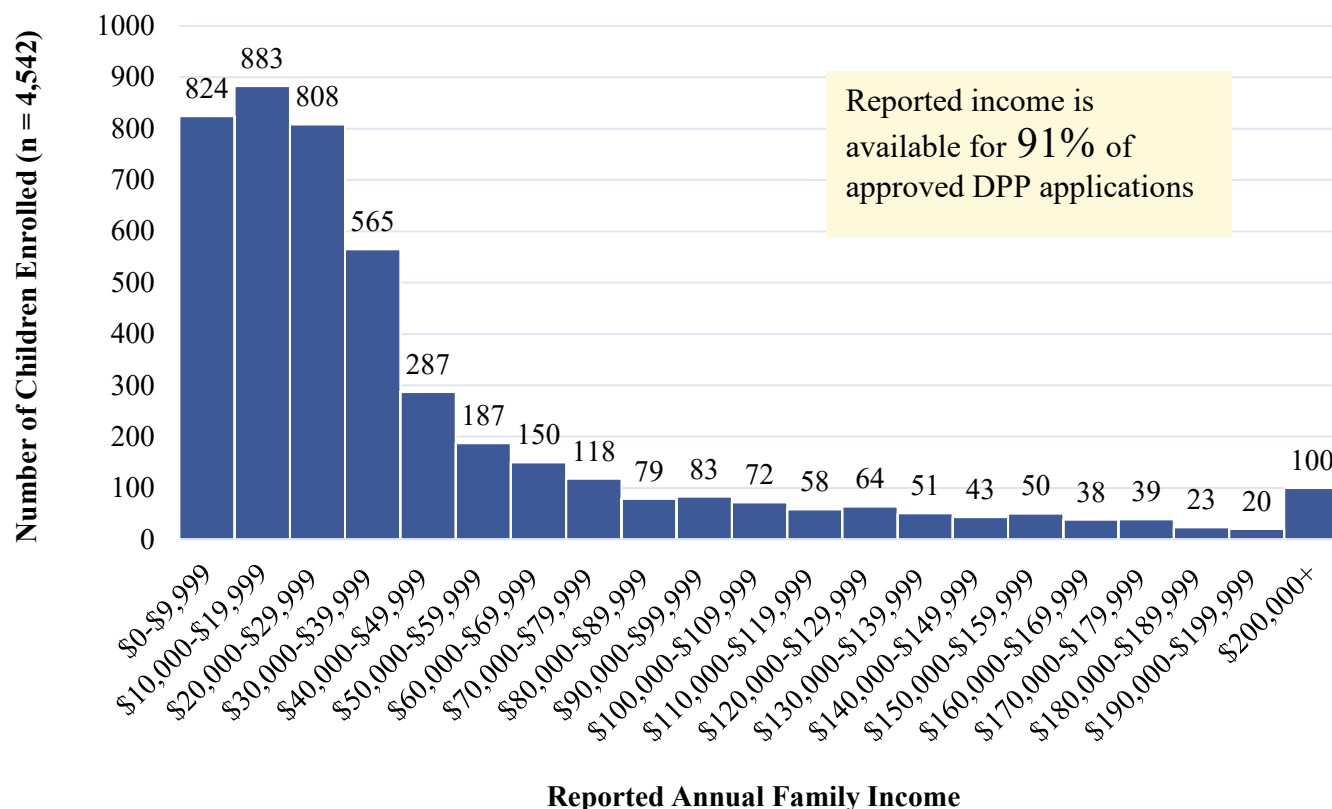
Primary home language. As shown in Figure 6, English was the primary language spoken at home for slightly more than one-half of DPP students (54 percent), which was followed by Spanish (19 percent). Other languages included Arabic, and other languages (13 percent). Data on primary home language was missing for 13 percent of the cases.

Figure 6. 2016-2017 DPP Approved Applications by Primary Home Language (n = 4,997)



Reported family income. As has been the case during previous years, a large proportion of families (55 percent) served by DPP in 2016-2017 had incomes below \$30,000. The number of DPP students by income category is provided in Figure 7. Please note that about 6 percent of DPP applicants opted out of providing income information, and for another 3 percent the reported income amount was missing.

Figure 7. 2016-2017 DPP Approved Applications by Reported Family Income



Household size and tuition credit tiers. Similar to previous years, many DPP families have four (36 percent) or five household members (21 percent) (Figure 8). Household size and household income are used to determine the family's tuition credit tier. (For the FPL percentages that correspond with the DPP tuition tiers, see the table, right). As shown in Figure 9, more than 60 percent of families fall into the lowest two tiers, indicating greater need for preschool tuition assistance. This distribution across tuition credit tiers is similar to previous years' data.

Figure 8. 2016-2017 DPP Approved Applications by Family Size

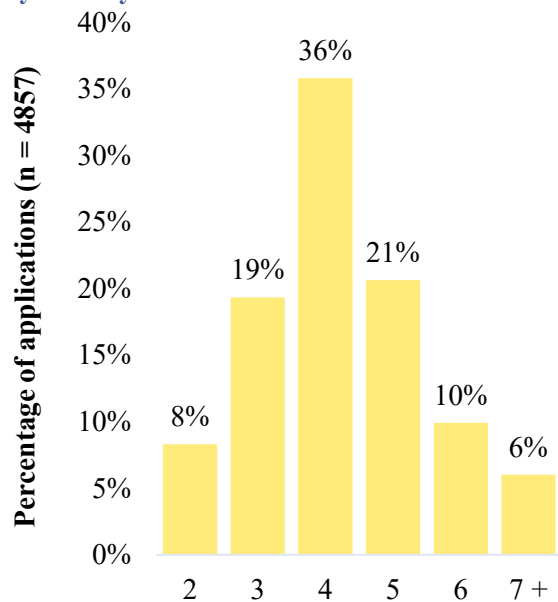
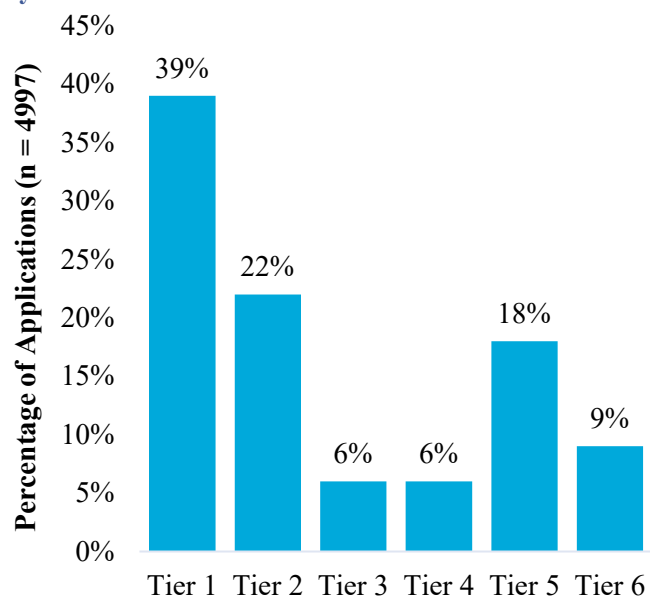


Table 7. DPP Income Tiers

Income Tier	Percentage of FPL	2016-2017 Monthly Tuition Credit*
1	< 100%	\$551
2	100% - 185%	\$496
3	185%-225%	\$441
4	225%-300%	\$331
5	> 300%	\$89
6	Income Opt Out	\$55

*At a Level 4-rated preschool; full day attendance

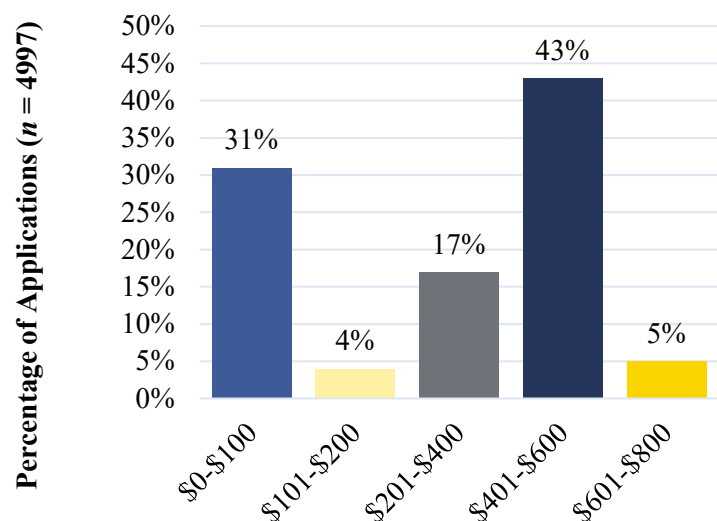
Figure 9. 2016-2017 DPP Approved Applications by Tuition Credit Tiers



Each family's tuition credit amount is calculated based upon the tuition credit tier (described above), the quality rating of the preschool, and the hours the child attends preschool..

Figure 10 shows the distribution of tuition credit amounts across DPP families. Please note that this is the approved tuition credit amount that was calculated at the time of the family's enrollment in DPP, but it is possible that the actual amount delivered was adjusted based on changes to the child's preschool attendance. In addition, the tuition credit may not be delivered throughout the entire school year (e.g., if parents moved the child to a non-DPP preschool or moved out of Denver, or if a family moved into Denver during the year).

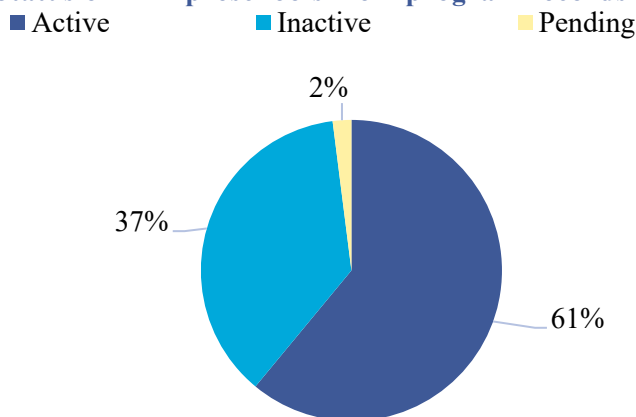
Figure 10. DPP Applications for the 2016-2017 School Year: Tuition Credit Monthly Amounts



DPP Preschools

A total of 245 DPP preschools were active at the end of the 2016-2017 school year, which is similar to past years. Active preschool programs represented 61 percent of DPP sites listed in the MetrixIQ database, while another 37 percent of preschools were “inactive” (e.g., the preschool closed, did not renew, or no longer had ECE classrooms), and 2 percent were pending DPP approval, which indicates a program has nearly completed the DPP provider application process but was missing some required documentation (e.g. insurance certificate(s), official child care license, etc.) (Figure 11).

Figure 11. Status of DPP preschools from program records (n = 400)



As in past years, community preschools comprised the majority of DPP preschools (59 percent), while DPS preschools made up 36 percent (Figure 12). Only about 5 percent of sites ($n = 12$) were home-based preschools. Most DPP preschools (65 percent) had a quality rating of 4 or 5 (Figure 13).

Figure 12. DPP Active Preschools by Type ($n = 245$)

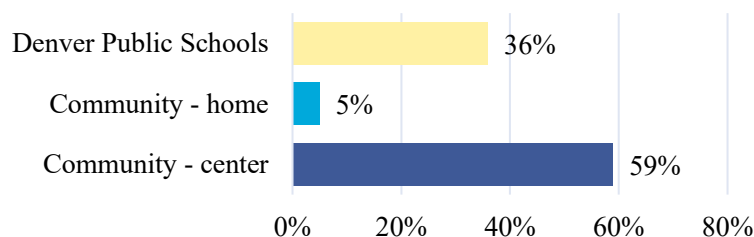
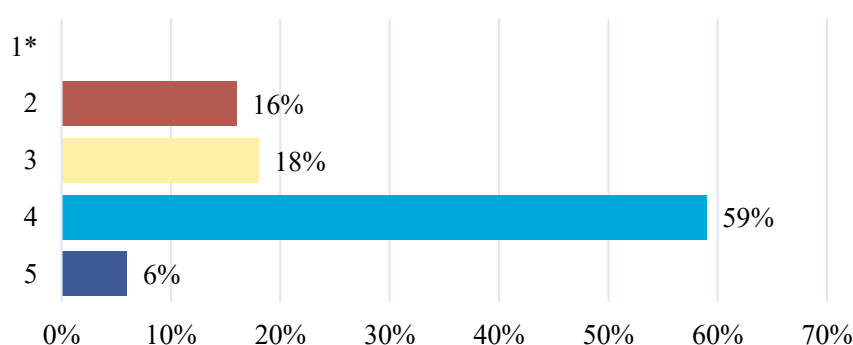


Figure 13. DPP Active Preschools by Quality Rating ($n = 244$)



*Less than 1 percent of preschool programs had a rating of 1 and are not included.

Access to Quality Preschool

One of the primary purposes of the Denver Preschool Program is to provide Denver 4-year-olds with access to quality preschools. DPP's main tool for increasing family access to preschool is through tiered tuition credits based on family income and preschool quality. This section explores the extent to which DPP accomplished its goal of increased preschool access for 4-year-olds during the 2016-2017 school year. Results are based on both parents' perspectives, as captured by the parent survey, as well as quality ratings of the preschools children attended.

Overview of Survey Results

To contextualize parents' views of DPP, we first describe parents' needs and priorities related to preschool and child care. Next, we provide an overview of parents' perceptions of the DPP application process, their knowledge of and interaction with DPP, and their views of tuition credits. (For breakdowns of survey results by school and family characteristics, please see the "Impact" section.)

Preschool Arrangements and Needs

About three-quarters of DPP parents (74 percent) reported that their child attended preschool before their 4-year-old

Top 5 Reasons Children Attended a Different Preschool in Their 4-Year-Old Year ($n = 80$)

- Get child ready for kindergarten (68%)
- Enroll child in better quality preschool (50%)
- Have child in same school as siblings (48%)
- Space became available in preferred preschool (33%)
- Save money (31%)



year. Of those, many attended the same preschool where they are currently enrolled (62 percent), although approximately one third (38 percent), switched preschools for their 4-year-old year. Notably, about one in five parents indicated that part of the reason for the change in preschool was to get the DPP tuition credit. Other reasons for changing preschools are shown in the box (right).

Among children who did not attend preschool before their 4-year-old year ($n = 74$), most were cared for by a parent (72 percent), while 26 percent were cared for by a family, friend, or neighbor (FFN) caregiver, and 7 percent were cared for by a babysitter or nanny. Of parents with a child or children who were younger than their 4-year-old, a majority reported that the younger child(ren) did not currently attend preschool (58 percent). Of those younger siblings who did attend preschool, 39 percent were enrolled in community-based DPP preschool, 24 percent attended a DPS school, and 37 percent went to a community-based preschool that was not participating in DPP.

A small number of children who attended preschool also attended additional wraparound child care ($n = 50$). According to parents, additional child care was typically needed because the preschool schedule did not meet their needs (60 percent). The most common type of supplemental child care used was center-based care connected to their preschool (39 percent). Other options included family, friend or neighbor care (26 percent), a babysitter or nanny (24 percent), home child care (14 percent), or center-based child care separate from their preschool (10 percent).

Choosing a Preschool

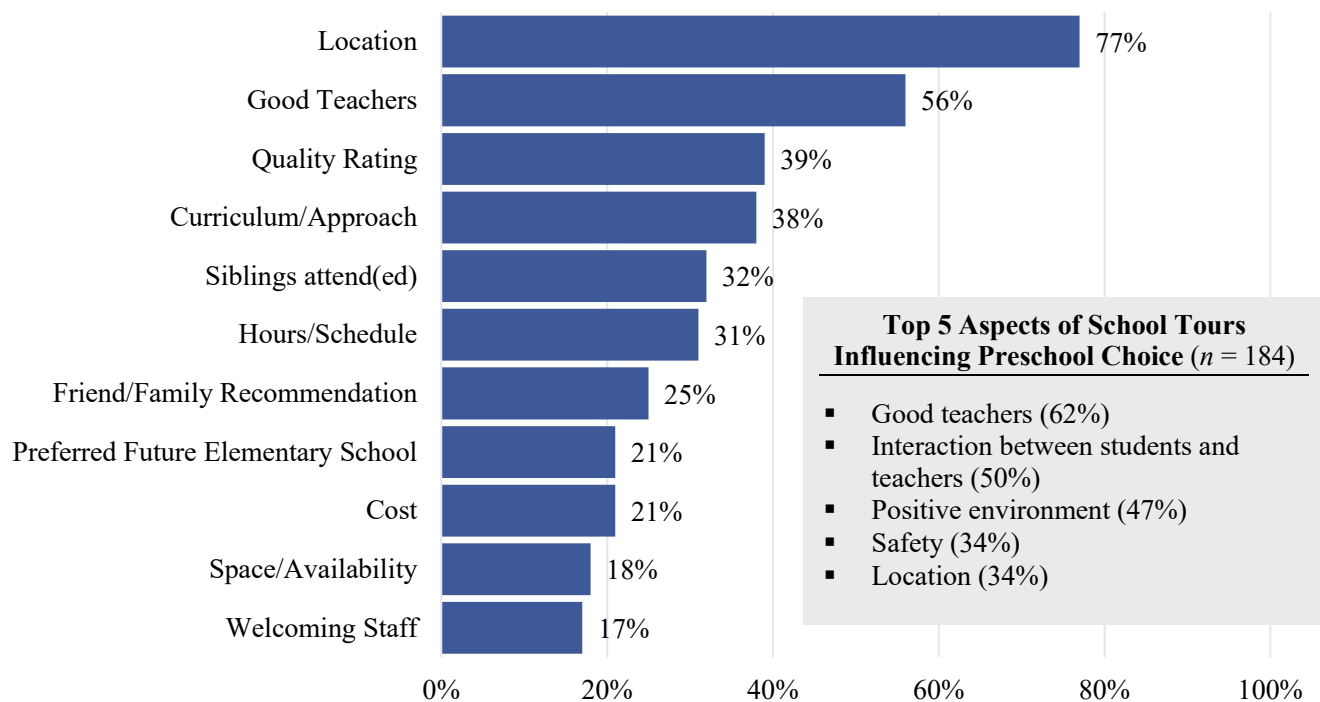
Most DPP parents reported that their child attended their first choice preschool (89 percent). For the 11 percent of parents that did not enroll their child in their first choice preschool, the main reason was that there were no spaces left (39 percent). Other reasons for sending their child to another preschool were that their first choice was too expensive (13 percent), the location did not work (13 percent), and the schedule did not work (10 percent).

More than two-thirds of DPP parents reported that they chose their child's preschool based on location (77 percent). Figure 14 shows the overall factors influencing preschool choice, while the accompanying text box shows factors considered by parents who took a school tour prior to making their preschool selection. Results suggest that location most influenced most parents' preschool choice (77% of parents rated this as one of their top four reasons for choosing a preschool), which was followed by the school having a good teachers, and the quality rating. In the 2015-2016 survey, parents reported similar reasons for choosing a preschool, with location, quality, and curriculum as the top three factors; it is important to note that "good teachers," the second most frequently selected reason on the current year's survey, was not included on the 2015-2016 survey.

Non-DPP parents had similar views of what influenced their preschool choice. Some, but not all, parents participated in school tours prior to making their preschool selection. When it came to tour factors, DPP parents identified good teachers and teacher-child interactions as the most important factors affecting their choice, while non-DPP parents believed good teachers and good leaders were most influential concerning their preschool choice.

Figure 14. Factors Influencing Preschool Choice ($n = 284$)

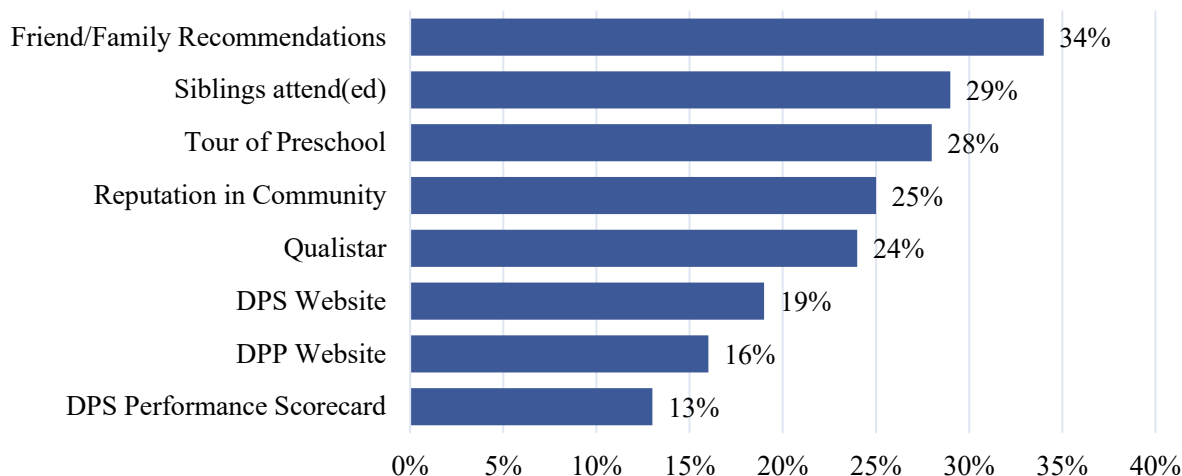




Many DPP parents learned about the quality of their preschool through friends and family (34 percent) and/or based on their experience with an older sibling who attended the school (29 percent). DPP parents also frequently reported that a tour of the preschool informed them of the quality (28 percent).

Figure 15 shows the most common ways families found out about their preschool's quality. Non-DPP families reported learning about their preschool's quality exclusively through the reputation in the community.

Figure 15. Ways DPP Parents Learned About Preschool Quality (n = 295)



The majority of parents (79 percent) were unaware whether their child's preschool had accreditation from the National Association for the Education of Young Children (NAEYC). Of parents who completed the survey and had their child in an NAEYC accredited preschool (n = 14), only 6 (43 percent) reported NAEYC accreditation, while 8 (57 percent) reported they did not know.



DPP Application Process

DPP was interested in learning more about how families apply for DPP and what their experiences of the application process are. Results show that most DPP parents submitted a DPP application through their child's preschool (61 percent), while others turned it in via email (14 percent), mail (11 percent), in-person (5 percent), by fax (2 percent), or online via parent/DPS portal (4 percent).

Figure 16 provides mean ratings for each part of the application process and indicate that, on average, parents found the process to be somewhat or very easy. The lowest rated part of the process was gathering records – about 16 percent of parents rated this as somewhat or very hard.

The three main sources of support to families during the application process were DPP (64 percent), DPS (57 percent), and non-DPS preschools (32 percent). Support from these organizations were rated highly, as shown in Figure 17.

Figure 16. Ease of the DPP Application Process (n = 291)

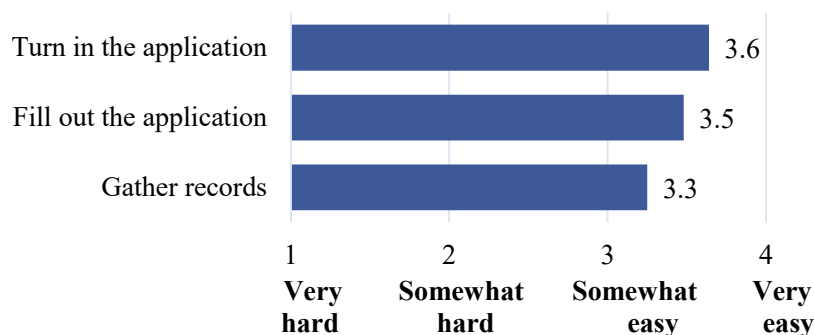
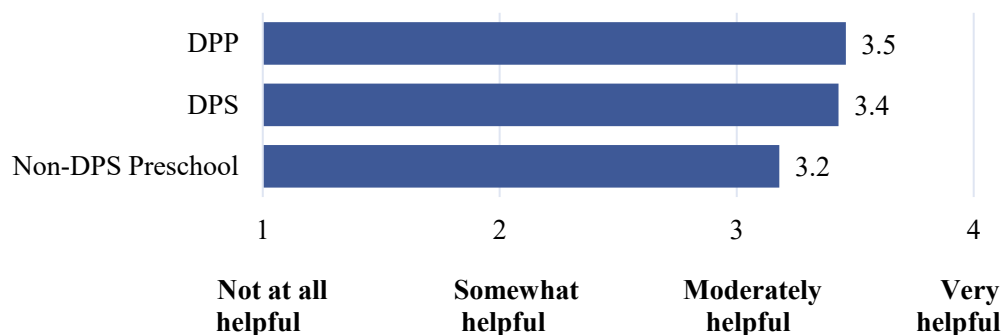


Figure 17. Ratings of Sources of Help with the DPP Application Process (n = 276-295)



Knowledge of and Interaction with DPP

DPP parents were asked about their first interaction with DPP and their knowledge of DPP activities and resources.

DPP parents reported hearing about DPP for the first time in a variety of ways, with the most common being through DPS (27 percent) or a preschool staff member (15 percent). The majority heard about DPP for the first time more than six months before their child began their 4-year-old school year (68 percent), while 14 percent heard about it less than six months before preschool started, 7 percent heard *after* their child started preschool, and 10 percent did not remember.

"I was lucky to find out about DPP in time from another parent. My school doesn't do much for awareness of this program, and it's hard to understand why. More outreach or promotion requirements for participating preschools would be beneficial."

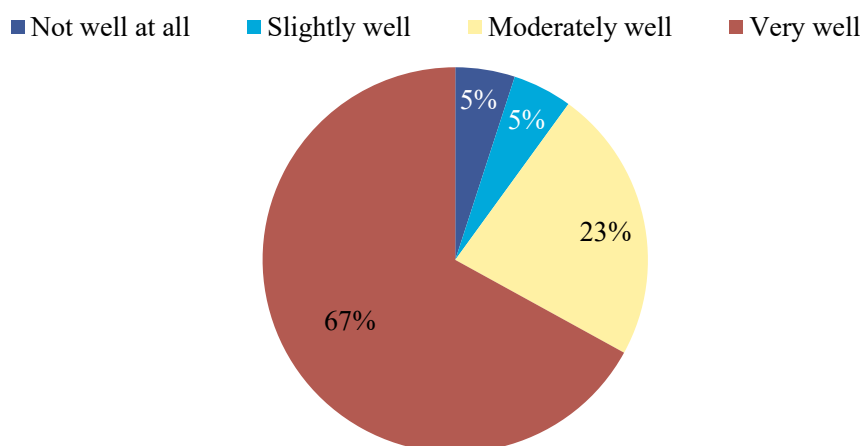
Most DPP parents reporting knowing *some* or *a lot* about DPP (72 percent). Two of the three non-DPP parents knew *very little* about DPP. One person said, *"This should be more available to families. I've never heard of DPP."* The third non-DPP parent, whose child attended a community preschool, reported having *some* knowledge about DPP, and heard about DPP through DPS more than six months before their child started preschool.



Are there differences in awareness of DPP based on parent characteristics? We examined whether subgroups of DPP parents had different levels of knowledge about DPP. To do this, we grouped parents who were more knowledgeable (knew *some* or *a lot*) and those who were less knowledgeable (knew *very little* to *nothing at all*.) Results showed that in terms of general knowledge (*How much do you know about the Denver Preschool Program?*), parents' knowledge was similar regardless of region, language, family income, child's race/ethnicity, and preschool program type (DPS vs. community).

Notably, most families who identified themselves as speaking English as a Second Language (ESL) rated DPP's communication very highly (see Figure 18).

Figure 18. Communication with Families Who Identified as ESL (*n* = 49)



Tuition Credits

Parents were asked about their use and knowledge of tuition credits offered by DPP, and this section summarizes their feedback.

Use of the credit. The majority of DPP parents were aware that they received a tuition credit from DPP (57 percent). Of the 87 DPP families who indicated they did not receive a tuition credit, 95 percent had a child attending a DPS school; this is likely due to the fact that information about the tuition credit is not printed on DPS parents' invoices. The majority of parents who did not know if they received a tuition credit also had a child attending a DPS school (84 percent).

Parents with a child attending a community school were more likely to know they received a tuition credit.

Size of the credit. Parents were asked if a larger tuition credit would have affected their preschool choice and number of hours they enrolled their child in the preschool. As shown in Figure 19, about 10 percent of parents would have sent their child to a different preschool or enrolled in more hours if the tuition credit had been larger. Another 10 percent-20 percent of parents indicated that this would depend upon the amount of the tuition credit. Most frequently, parents reported a tuition credit of \$301-\$500 per month would have given them the opportunity to send their child to the preschool of their choice (30 percent) or for more hours (28 percent).

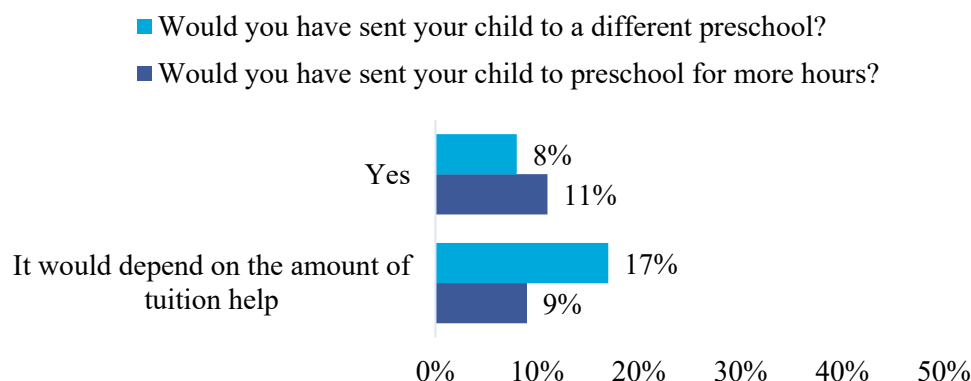
Why don't other families apply for the DPP tuition credit?

According to DPP and non-DPP parents, this could be because they...

- Are unaware of DPP
- Think their child won't qualify
- Enroll in a preschool that is not part of DPP



Figure 19. What Would You Do If You Received a Larger Tuition Credit?



From the perspective of non-DPP parents, two of the three would have changed their preschool if they received tuition help from DPP. One parent indicated that a tuition credit of \$201-\$300 per month would have helped them send their child to the preschool of their choice.

Understanding of the credit. Parents were split on their knowledge of tuition credits with 51 percent of parents knowing *some* or *a lot* about the tuition credit, while 49 percent knew *very little* or *nothing at all*.

Which DPP Families Are Most Familiar with the Tuition Credits?

DPP families who report being most knowledgeable...	% knowledgeable	DPP families who reported being least knowledgeable...	% knowledgeable
✓ Live in northwest Denver	61%	<input type="checkbox"/> Live in southwest Denver	36%
✓ Speak English as a first language	57%	<input type="checkbox"/> Speak English as a second language	31%
✓ Are White, not Hispanic	62%	<input type="checkbox"/> Are Hispanic	35%

There were statistically significant differences in knowledge of the tuition credit across subgroups of parents.¹ Full results are shown in Appendix C, and the boxes to the right provide information about the characteristics of families who were most and least knowledgeable about the tuition credits.

Overall, parents who lived in Northwest Denver, spoke English as a first language, and whose child was White (not Hispanic) tended to be more knowledgeable.

Many parents requested clarification regarding the amount families receive, the billing process, and advertisement. Parents offered a variety of ways for DPP to improve when it comes to helping families learn more about DPP tuition credits (see box, below).

¹ Language: $\chi^2(2, N = 208) = 10.62, p = .001$; Race: $\chi^2(3, N = 208) = 12.72, p = .005$



DPP Parents' Suggestions to Help Families Learn about Tuition Credits



Print/online materials (e.g., letters, flyers):

- *"Send a letter to older students in schools for parents who may have younger children."*
- *"I know less and less parents are using Facebook – [try] websites like Nextdoor."*



Marketing at schools:

- *"Have schools tell parents about it."*
- *"Require schools whose students receive credit to announce it to families."*



Clarification:

- *"Would like it explained a bit more as to why you get the amount you get."*
- *"For DPS students, better explain that the credit is already factored into the tuition, that there is no additional discount."*



Events:

- *"Maybe it could reach more people if they had a little stand, (with a sign saying something like: Come visit us if you have a 3 or 4 years old child) on the Free Days at the Zoo, Denver Museum of Nature and Science, etc."*

Possibility of using the credit for 3-year-old preschool. When asked if they would have started their child in preschool as a 3-year-old if DPP tuition help was available, many parents would have enrolled their child earlier (28 percent) or believed they could have used the tuition credit even though their child did attend as a 3-year-old (44 percent). Non-DPP families were split with one family reporting they would have enrolled their child in their 3-year-old year had DPP tuition help been available, one family who could have used the help, and one family who did not need the help.

Impact

In this section, we summarize parents' views on how preschool and the support from DPP impacts their families. We also examine which subgroups of families benefit most from DPP's services.

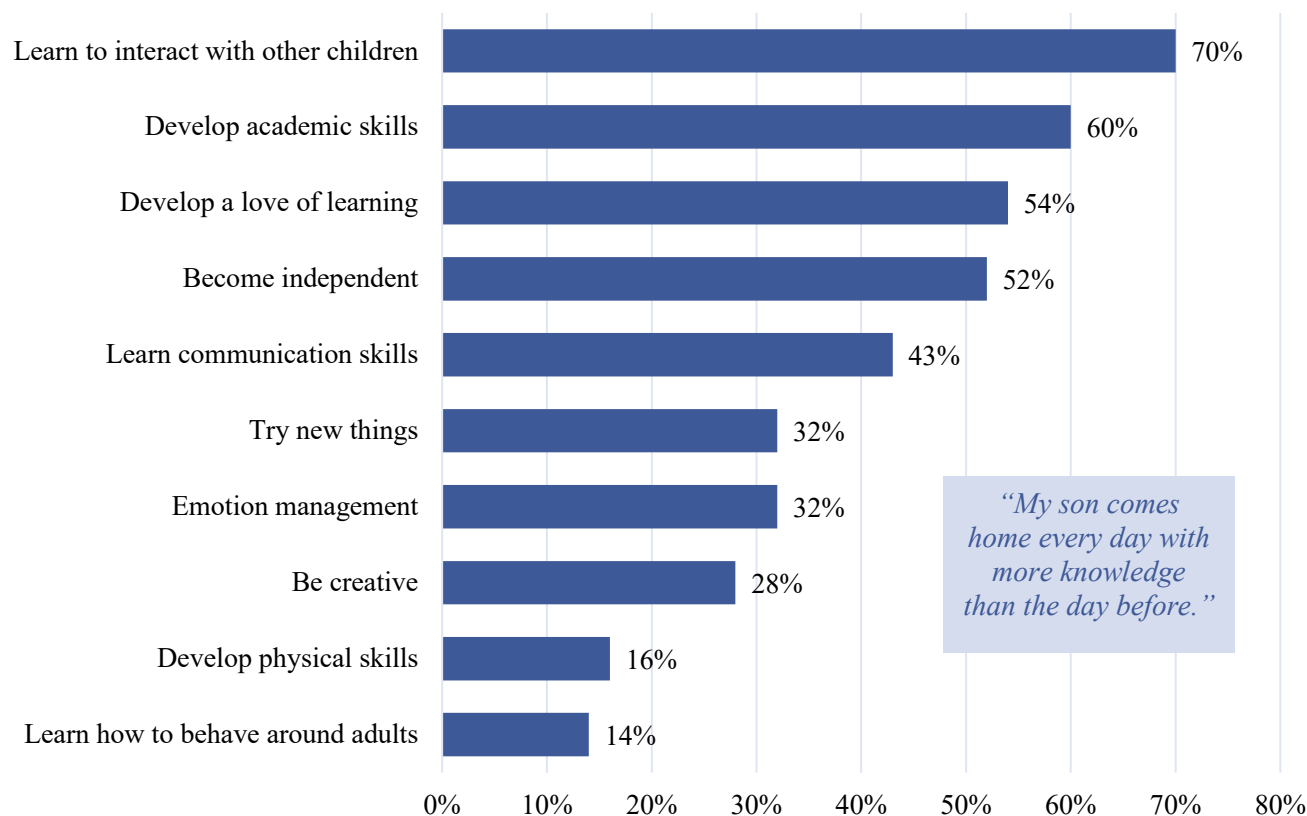
Benefits of Preschool

School readiness. According to parents, their children receive social and academic benefits by attending preschool. Figure 20 shows parents' views of how preschool helps their children. More than one-half of parents reported that preschool helps their child learn how to interact with other children, become independent, develop academic skills, and develop a love of learning.

"I thank the DPP; my student has learned so much this school year, and I'm impressed with his emotions, being a friend, respecting his school work."



Figure 20. Ways Preschool Helps Children (*n* = 284)



*Less than 1 percent of respondents selected “other” and specified that preschool helps, “be part of our diverse community” and “identify techniques for addressing Autism traits.”

Economic benefits. According to DPP parents, preschool also benefits adults in the family by allowing them to work (81 percent), work longer hours (46 percent), and go to school (25 percent). See the box (right) for one parent’s comment.

“I appreciate this program very much. It has allowed me to take master's degree level college classes while my child is in school. Thank you very much for helping me and my child to both gain a broader range of educational opportunities!”

Access to the Tuition Credit

While most parents learned about DPP at least six months before their child started preschool, some found out earlier than others. Statistically, parents whose child attended a DPS school were significantly more likely to find out about DPP at least six months before school started than were parents whose child attended a community preschool (80 percent versus 65 percent, respectively; $p < .05$). This could mean that community preschools would benefit from more support to “get the word out” to families about DPP early on. Similarly, parents who learned about DPP earlier had significantly higher reported incomes, on average, than did those who found out later – about \$49,000 versus \$26,000, respectively (excluding families with extreme incomes; $p < .01$). This suggests that earlier outreach to low-income families most in need of support may be helpful.



It appears that, in general, DPP tuition credits are accessible to parents, as most found the DPP application process to be easy. However, about 20 percent found at least one aspect of the process to be *somewhat* or *very hard* ($n = 61$). There were no statistically significant differences between the family and school characteristics of those who found the process to be hard versus those who thought it was easy. However, compared to the overall sample of families who took the survey, those who thought the process was hard tended to include families of higher incomes, those from Northeast Denver, and those with a child identified as a race/ethnicity *other than* Black, White, or Hispanic.

Without the tuition credit, some parents would not be able to send their child to their current preschool ($n = 56$).

Of those ...

- Most could not have sent their child to preschool at all ($n = 39$).
- Some would have sent their child to a cheaper ($n = 15$), and/or a lower quality preschool ($n = 5$).

“Great program, and can't wait for my younger children to be part of it. I think it is a wonderful way for children to get started with their education. Thank you!”

Impact of the Tuition Credit

Families generally reported that the tuition credit was a factor in their preschool choice, with 56 percent reporting that the tuition credit was *important* or *very important*. Many parents believed their child would not be able to attend their current preschool if they did not receive tuition help from DPP (36 percent).

Subgroups of parents, however, had differing views about the impact of the tuition credit. Those who were from southwest Denver, attended DPS schools, speak English as a second language, and have a Hispanic or Latino child reported that the tuition credit was important in much greater proportions than other families. Furthermore, on average, parents who rated the tuition credit as important had lower incomes (\$28,733) than did those who rated the credit as less important (\$101,175).

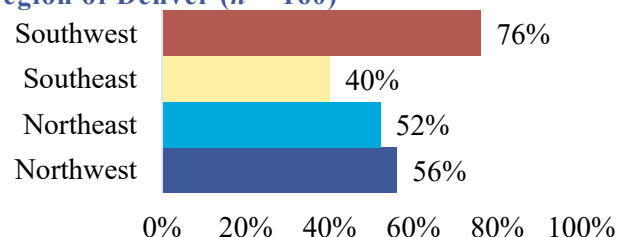
These results suggest that some of the most high-need families in Denver feel that DPP tuition credits are making a difference. Perceptions of parents by region of the city, preschool type, parents' first language, and child's race and ethnicity are shown in the figures and tables below.

Who feels that they benefit most from DPP tuition credits?

Parents who...

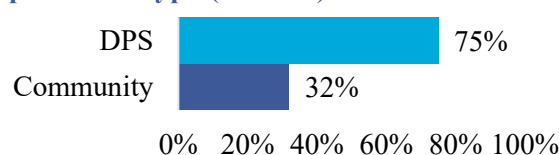
- **Live in Southwest Denver**
- **Have lower incomes**
- **Speak English as a second language**
- **Have a Hispanic or Latino child**
- **Have a child who attends a DPS preschool**

Figure 21. Importance of the tuition credit by region of Denver ($n = 160$)*



* $p < .05$

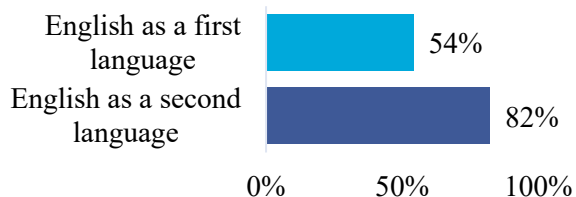
Figure 22. Importance of the tuition credit by preschool type ($n = 155$)**



** $p < .001$

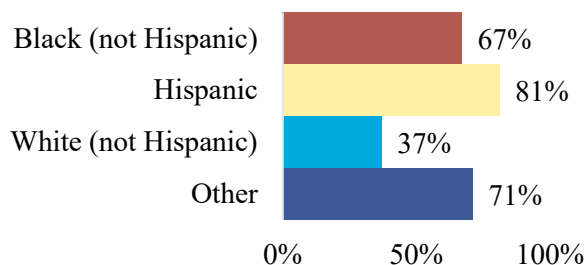


Figure 23. Importance of the tuition credit by language ($n = 122$)*



* $p < .05$

Figure 24. Importance of the tuition credit by child's race and ethnicity ($n = 122$)**



** $p < .001$

Table 7. Importance of the tuition credit by reported income ($n = 133$)**

	Average Income	Range
Importance of the tuition credit		
More important	\$28,733	\$0 - \$84,000
Less important	\$101,175	\$10,000 – \$260,000

** $p < .001$; income values in the ranges were rounded to the nearest ten thousand; extreme income values ($n = 9$) were not included

Potential Impact of a Tuition Credit Increase

When parents were asked to consider the impact a larger tuition credit might make, parents tended to have similar responses regardless of child, family, and school characteristics.

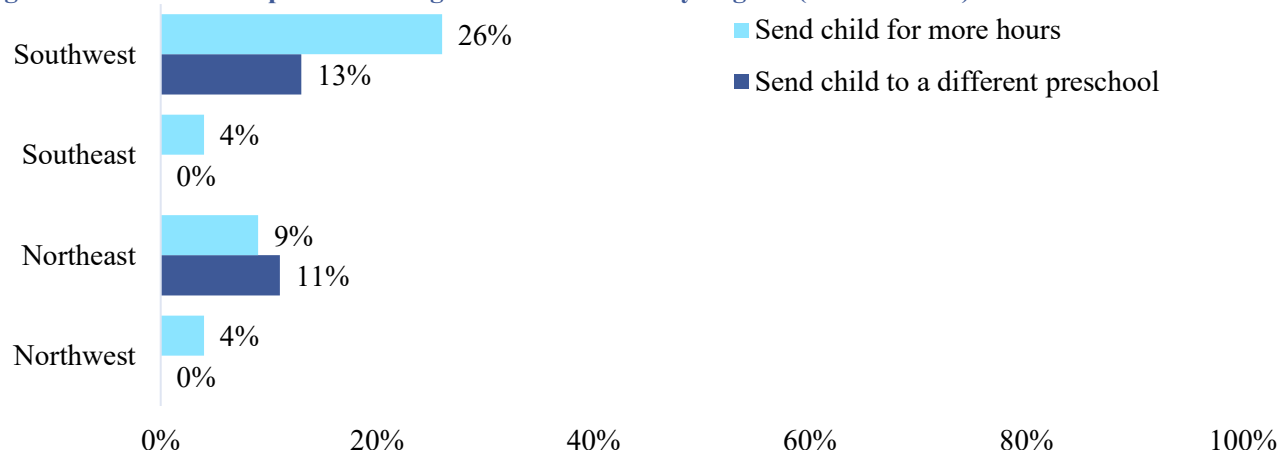
However, there were statistically significant differences in parents' perceptions by region of the city (Figure 25). *All* parents who would have used a larger tuition credit to send their child to a different preschool were from either Northeast or Southwest Denver ($n = 13$), and about 1 in 10 survey respondents from these regions would have used a larger tuition credit to send their child to a different school.

Similarly, 90 percent of those who said a larger credit would have allowed their child to attend preschool for more hours lived in either northeast or southwest Denver ($n = 17$). Notably, about one-quarter of parents from Southwest Denver would have used a larger credit to send their child to preschool for longer hours, while about 1 in 10 from northeast Denver would have done this. Thus, it appears that some families in Southwest and Northeast Denver are in need of greater tuition assistance than they currently receive.

Parents from **Northeast and Southwest Denver** were most likely to report that larger tuition credit would allow their child to go to a **different preschool** and/or **attend for more hours**.



Figure 25. Possible impact of a larger tuition credit by region ($n = 160-162$)*



* $p < .05$

Access to Quality Preschool

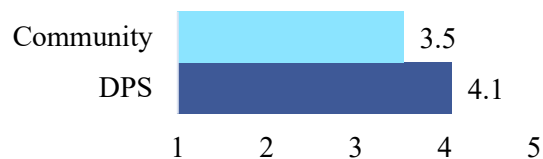
While the “DPP Preschools” section of this report provides information on the distribution of quality ratings among preschools, this section seeks to explore whether students from different backgrounds are able to access preschools of similar quality. Analyses are based on program records for all families with an approved DPP application.

DPP families accessed preschools of similar quality regardless of region of the city in which they live, home language, or child’s race and ethnicity.

Across the approximately 4,500 DPP students with quality rating and demographic information available, Colorado Shines ratings were about 4.0 on average, and scores for CLASS[®] domains were 6.0 for classroom organization, 6.4 for emotional support, and 2.7 for instructional support, on average. There was little variation in Colorado Shines ratings, with average ratings ranging from 3.8 to 4.1 regardless of the region of the city in which families lived, child’s home language, or race and ethnicity. Similarly, average CLASS[®] scores were similar across subgroups of families. Although some differences between groups were statistically significant due to the large sample size, it does not appear that these differences in quality, which described above are within a few tenths of a point of one another, are practically significant.

However, it appears that DPS students are exposed to somewhat higher quality preschool than are students who attend community preschools (Figure 26 and 27). As shown, DPS students’ schools had an average Colorado Shines rating of 4.1, while community preschool students’ schools had an average rating of 3.5.

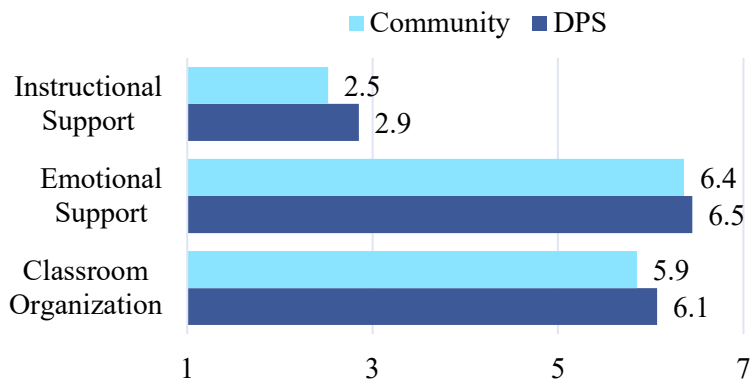
Figure 26. Colorado Shines Average Rating by preschool type ($n = 4,462$)



Although DPS and community sites had similar scores in emotional support and classroom organization, DPS sites’ instructional support scores were nearly one-half of a point higher than those of community sites (2.9 vs. 2.5, respectively).



Figure 27. Average CLASS® Domain Scores by Preschool Type



Notably, DPP students who attended more highly rated preschools tended to have lower household incomes, on average, than did those that attended lower quality preschools (Table 9).

Table 8. Average reported family income by Colorado Shines Rating of the child's school ($n = 3,761$)**

		Average Parent-Reported Annual Income	Range
Quality rating of child's school*			
2	($n = 197$)	\$64,980	\$0 - \$240,000
3	($n = 207$)	\$36,002	\$0 - \$150,000
4	($n = 2,984$)	\$27,897	\$0 - \$100,000
5	($n = 372$)	\$27,147	\$0 - \$90,000

*One family attended a level 1 preschool and is not included; income values in the ranges were rounded to the nearest ten thousand; extreme income values ($n = 470$) were not included



Quality Improvement Resources for Denver Preschools

Because the goal of DPP is to increase the access of Denver 4-year-olds to quality preschool, the evaluation examined not only the extent to which family access improved, but also the extent to which participation in DPP is related to higher quality preschool options. This section examines the extent to which DPP has helped preschools improve their quality during the 2016-2017 school year and is based on results of the preschool program survey, as well as quality rating data.

Overview of Survey Results

Below, results of the DPP and non-DPP preschool survey are presented, including an overview of challenges preschools face, as well as their views of DPP tuition credits and quality improvement (QI) resources.



Challenges Preschools Face

DPP preschools reported experiencing a variety of challenges over the last year (Figure 27). Most notably, they reported experiencing low student enrollment.

Some community DPP preschools said they were “*competing with the public school system*” for enrollment. One participant felt families had a negative view of non-DPS schools commenting, “*Some parents think that our pre-school is not good because it is a house and maybe we do not have the capacity of a teacher of a public school...when there are opportunities in a public school, they transfer there.*”

“As a single owner/proprietor, time is the biggest factor for participation. Between licensing requirements and doing additional program participation; licensing requirements take precedence.”

- Survey Respondent from a Non-DPP Preschool

Reasons for Participating in DPP

Helping children and families is an important reason preschools participate in DPP, as the majority of respondents enrolled *to help children access high quality preschool* (70 percent) and *to help families pay less* (61 percent). Many also highlighted the importance of participating *to get funding for quality ratings* (54 percent).

There were statistically significant differences in reasons for participating in DPP by preschool type. For example, community preschool respondents were much more likely to report that they joined to help children access high quality preschool, receive funding for quality ratings, and to get coaching support, professional development funds, and help paying for learning materials/equipment. DPS respondents were more likely to report not knowing or remembering why their school was part of DPP, and about 8 percent commented that being part of DPP was a DPS requirement.

Results are shown in Figure 29. The text box accompanying the figure lists the top three reasons non-DPP providers do not participate in DPP.

Figure 28. Top 5 Preschool Challenges (n = 256)

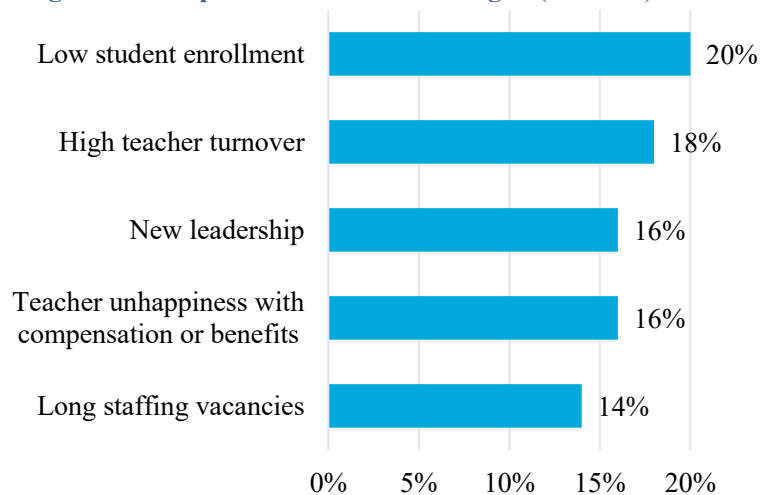
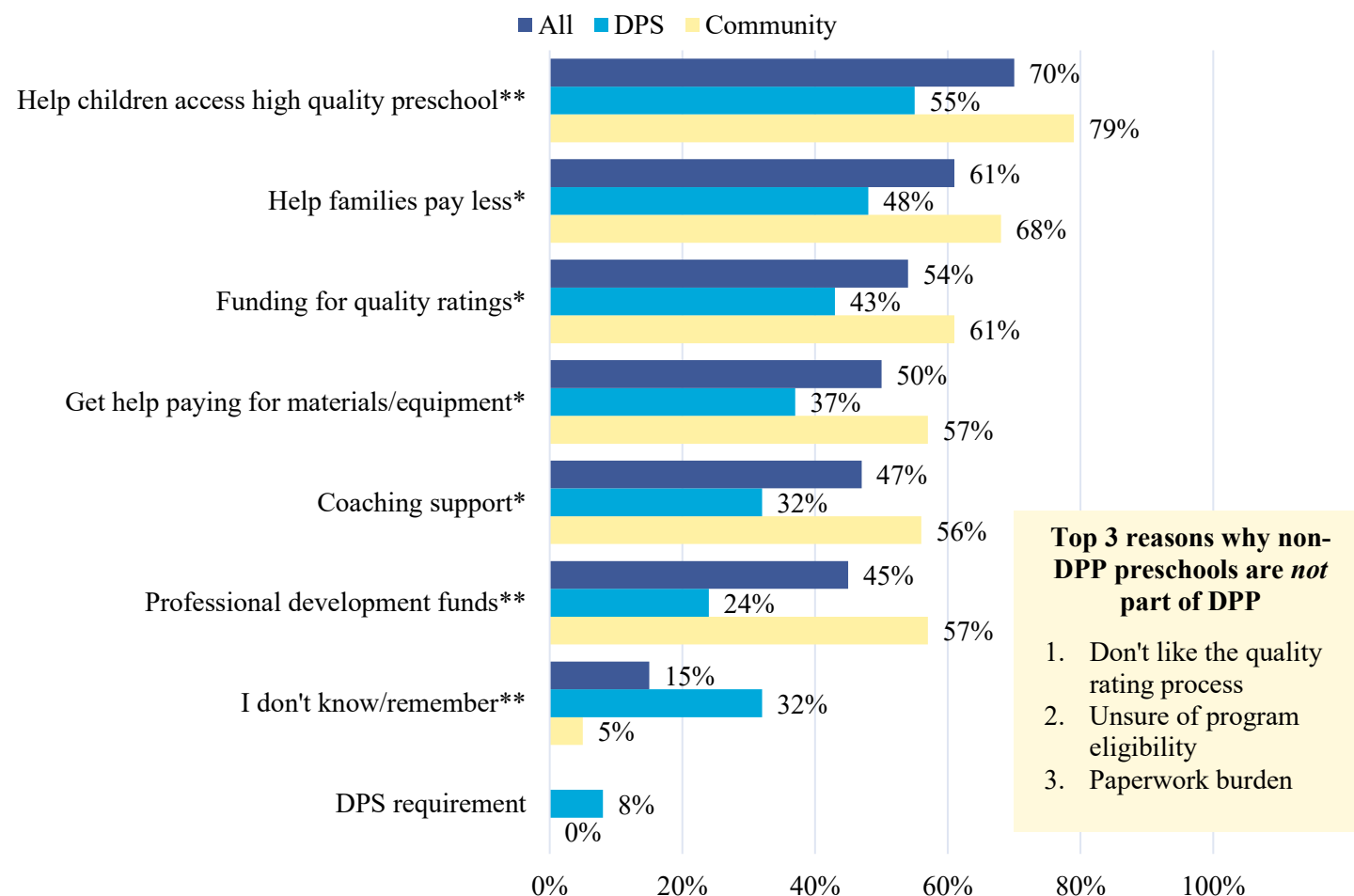


Figure 29. Reasons for Participating in DPP (*n* = 206)



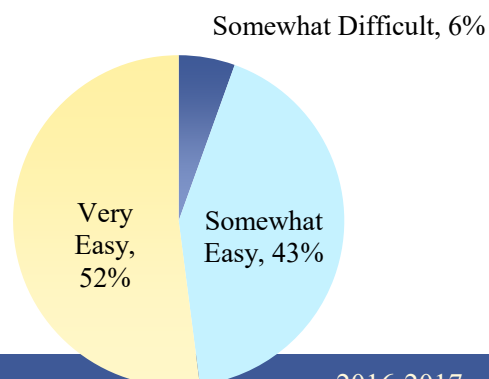
** $p < .001$; * $p < .05$

DPP Administrative Paperwork

Less than half of those surveyed reported personally filling out the application for their preschool to participate in DPP ($n = 74$). Of those, most found the process to be *somewhat* or *very easy* (Figure 30).

Overall estimates of time spent helping parents with paperwork and filling out attendance are provided in Figures 31a and 31b. However, there were some notable differences in time spent on these tasks by preschool type. In terms of helping families with paperwork, many DPS survey participants reported spending *no time* on this (58 percent), while 32 percent spent 1-5 hours, and 10 percent spent 6-10 hours. By contrast, 68 percent of respondents from community preschools spent at least 1-5 hours helping families with paperwork. Similarly, those from DPS schools

Figure 30. Staff Views on Ease of the DPP Application Process ($n = 73$)*



*One respondent who filled out the application did not answer the question about the application process, which is why the sample sizes are different.



generally spent less time on attendance paperwork per month, with just under one-half reporting that they spend *no time* on this (47 percent), versus only 10 percent of community preschools who spent *no time* on attendance paperwork.

Figure 31a. Time Spent on Helping Parents with DPP Paperwork (*n* = 191)

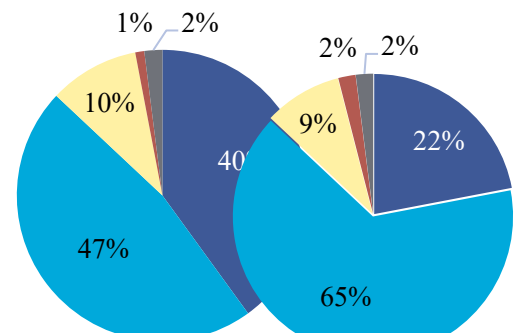
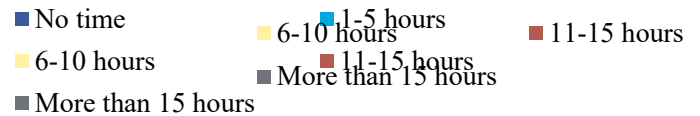


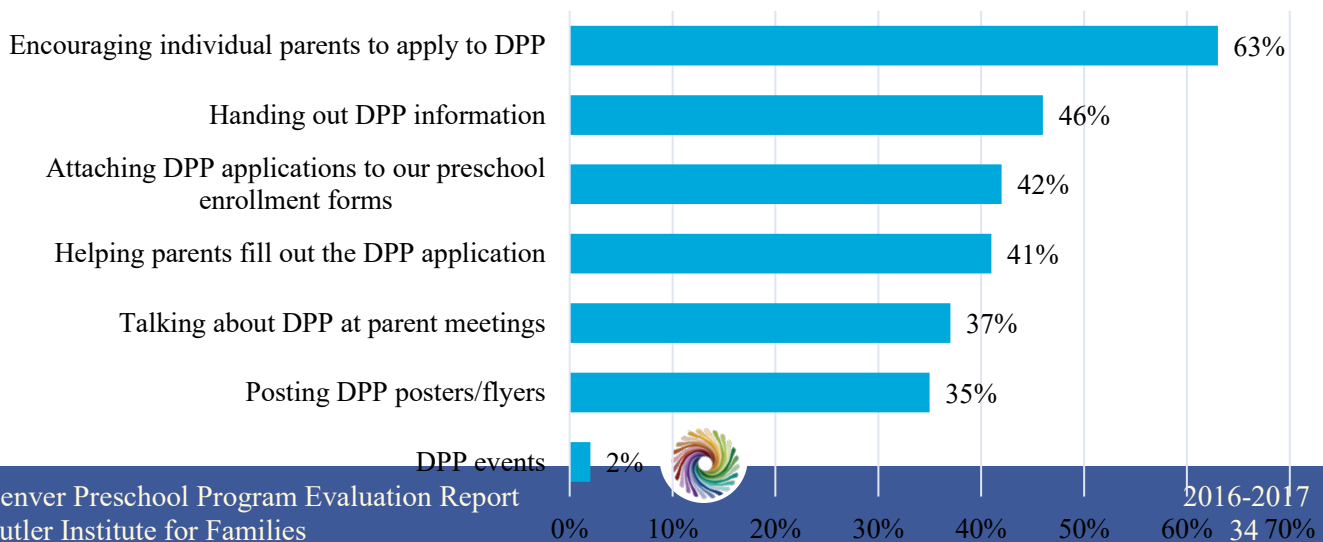
Figure 31b. Time Spent on Filing DPP Attendance Paperwork (*n* = 191)



Family Recruitment

The majority of preschools (80 percent) recruited parents to apply for the DPP tuition credits (Figure 32). Of those, most (63 percent) encourage individual parents to apply and 46 percent hand out DPP information. When asked to identify “other” recruitment strategies, a small percentage of respondents commented that they recruited families via DPP events (2 percent).

Figure 32. DPP Recruitment Activities (*n* = 201)



Requested Recruitment Support

- Print/electronic marketing
- DPP events/parent meetings
- Marketing enrollment in non-DPS programs
- Translation services
- Eligibility requirements information

A large percentage of preschool staff (79 percent) believed it was *somewhat easy* or *very easy* to recruit parents to apply for the DPP tuition credit. Those who struggled to recruit parents suggested a variety of recruitment support strategies. One provider mentioned it was difficult to recruit parents that did not speak English and said, *“My site consists of several languages, and not having the application [in another language] or access to someone to translate it becomes difficult and sometimes a loss.”*

Reasons for not recruiting parents for DPP are shown in Figure 33. Notably, **most survey respondents who did not recruit parents were from DPS preschools**, and among those, top reasons included not understanding the tuition credits (41 percent), recruitment being done by a central office (27 percent), and not seeing this as their role (17 percent). Among the eight community preschools that did not recruit families, reasons included the program being full (25 percent) and not seeing this as their role (12 percent).

“As a classroom teacher, I don't play a role in assisting families in enrolling and seeking funding. Maybe our school secretary assists and directs families in accessing DPP funding, but I don't know this to be a fact...”

-Survey Respondent from
a DPS Preschool



Figure 33. Reasons for Not Recruiting Parents for DPP (*n* = 37)

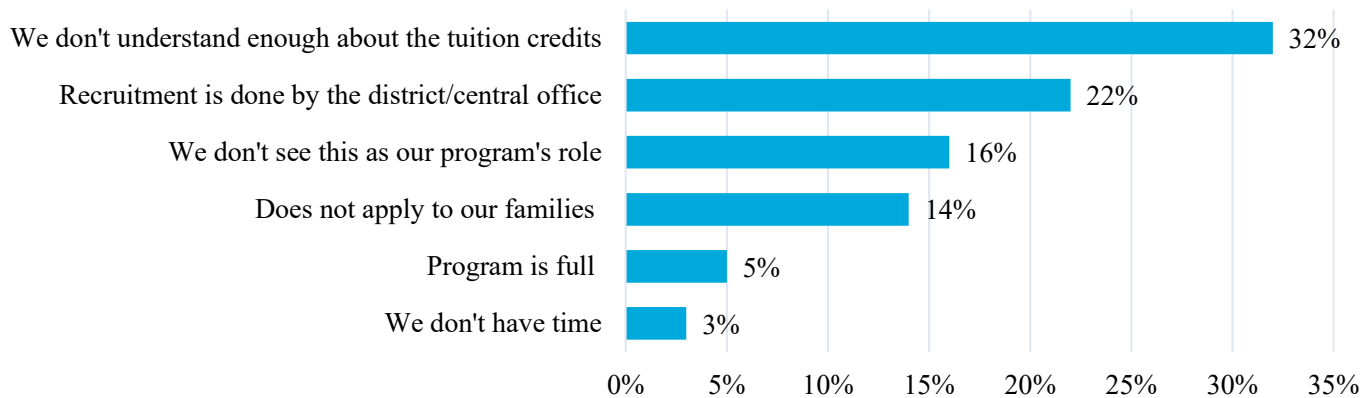
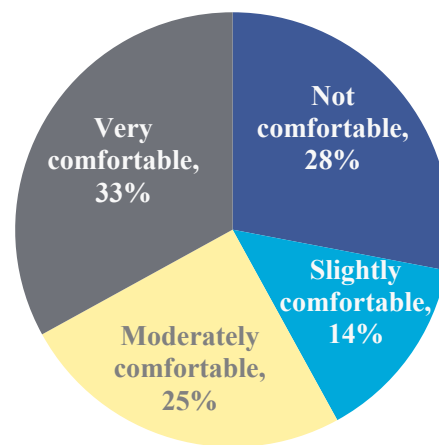


Figure 34. Comfort Explaining DPP Tuition Credits to Parents (*n* = 190)

Tuition Credits

Explaining credits to parents. There was a range of responses regarding providers' comfort level with explaining to parents how DPP tuition credit amounts are decided, with 33 percent reporting that they were *very comfortable* (the highest on the scale), while 28 percent were *not comfortable* (the lowest on the scale). Results are shown in Figure 34. **Of those who were *very comfortable* explaining the tuition credits (*n* = 63), 95 percent were from community preschools,** which is to be expected given that community preschools are more likely to recruit parents for the DPP tuition credits.



Reimbursement process. The majority of survey respondents believed the DPP tuition reimbursement process was *somewhat* or *very easy* for their preschool (90 percent). Most indicated they *often* or *always* received the DPP tuition credits soon after requesting them (79 percent). Even so, 21 percent *sometimes* or *rarely* receive them soon after.

About one-half of survey respondents said their preschool subtracts the tuition credit before invoicing families (49 percent), while a small percentage (7 percent) collect the tuition in full from families up front and reimburse them after receiving funds from DPP.

Most survey participants from community preschools (73 percent) reported that their invoices show the DPP tuition credit, while 80 percent of DPS respondents said this was not the case or that they were unsure. (In fact, DPS invoices do not show the tuition credit.)

Many respondents (44%) were unsure how their preschool processed the tuition credit, the majority of whom were from DPS preschools.

Overall views. The tuition credit is clearly important for both preschool programs and families, as preschool staff noted, “*Tuition*

“DPP is providing tuition help for families that would not otherwise afford preschool for their children.”



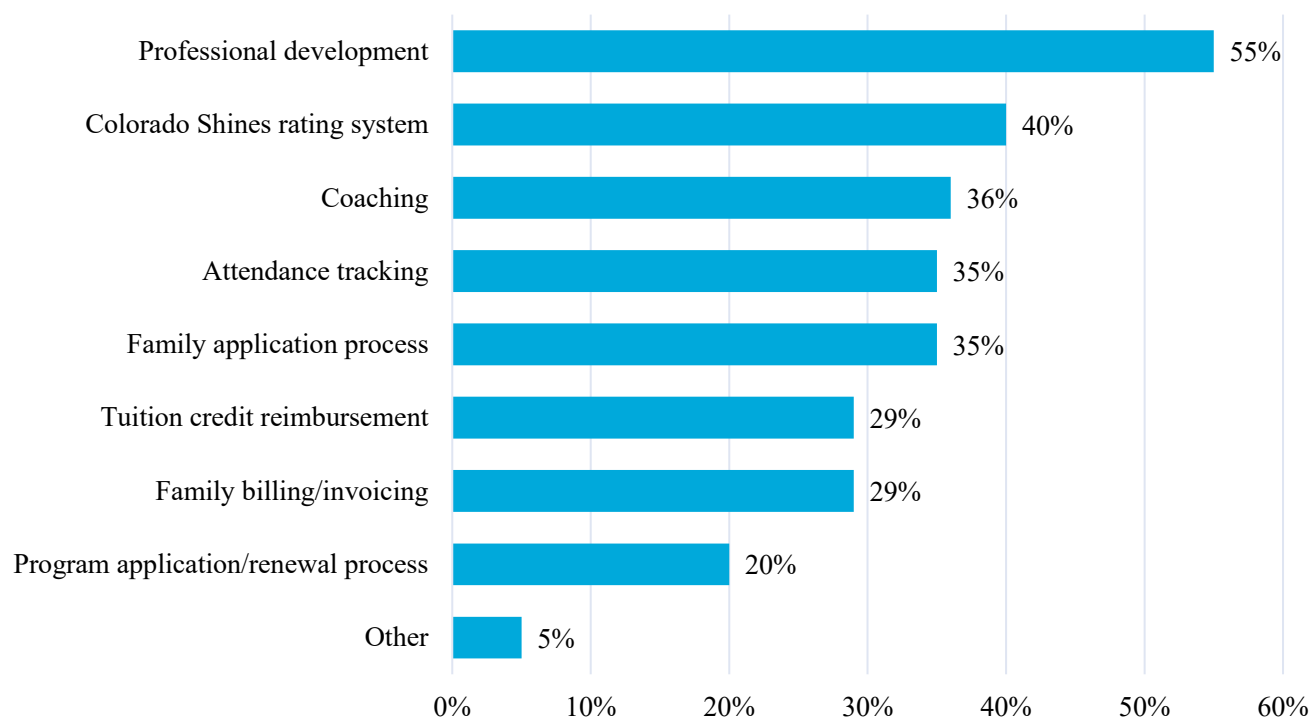
support opens the doors for families who have to make tough money choices about their child's education and care.”

However, another survey participant believed the tuition credit leaves gaps in coverage for middle income families, “Middle income families often struggle to find quality care because they make too much money to attend highly subsidized programs and not enough to pay for minimally subsidized ones.”

DPP Support

Administrative Help. About one-third of preschools asked DPP for administrative help during the last year. Almost all of those were community preschools (95 percent), and they found the help *moderately useful* or *very useful* (96 percent). Figure 35 shows the types of help received by DPP preschools over the 2016-2017 school year.

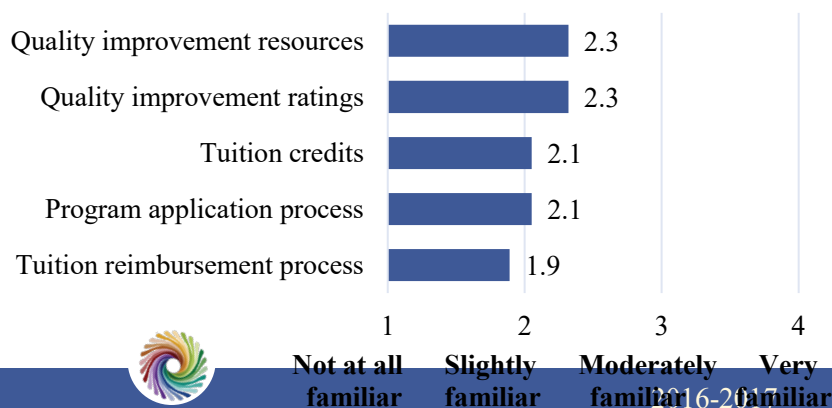
Figure 28. Types of Administrative Help Preschools Received (n = 55)



Communication. Preschools felt that the help from DPP was important, but also reported a lack of understanding of services provided by DPP and felt that communication could be improved.

Many DPP preschool staff believed a meeting, event, and/or more ongoing communication with DPP would be helpful. One person commented, “As a classroom teacher, I don't know much about it. A quick debrief about its role would be helpful at a meeting,” and another said, “I have missed the meeting we used to have available to keep us connected in a more personal way.”

Figure 36. Non-DPP Provider Familiarity with DPP Activities (n = 19)



Non-DPP providers, on average, were slightly-to-moderately familiar with DPP's processes and resources (Figure 36).

Quality improvement resources. Preschool staff were asked about 12 resources DPP offers to preschools (shown below in Figure 37). On average, they reported using 5 quality improvement resources and found the QI resources helpful, with an overall mean score of 3.3, indicating that they were “moderately” or “very” helpful.

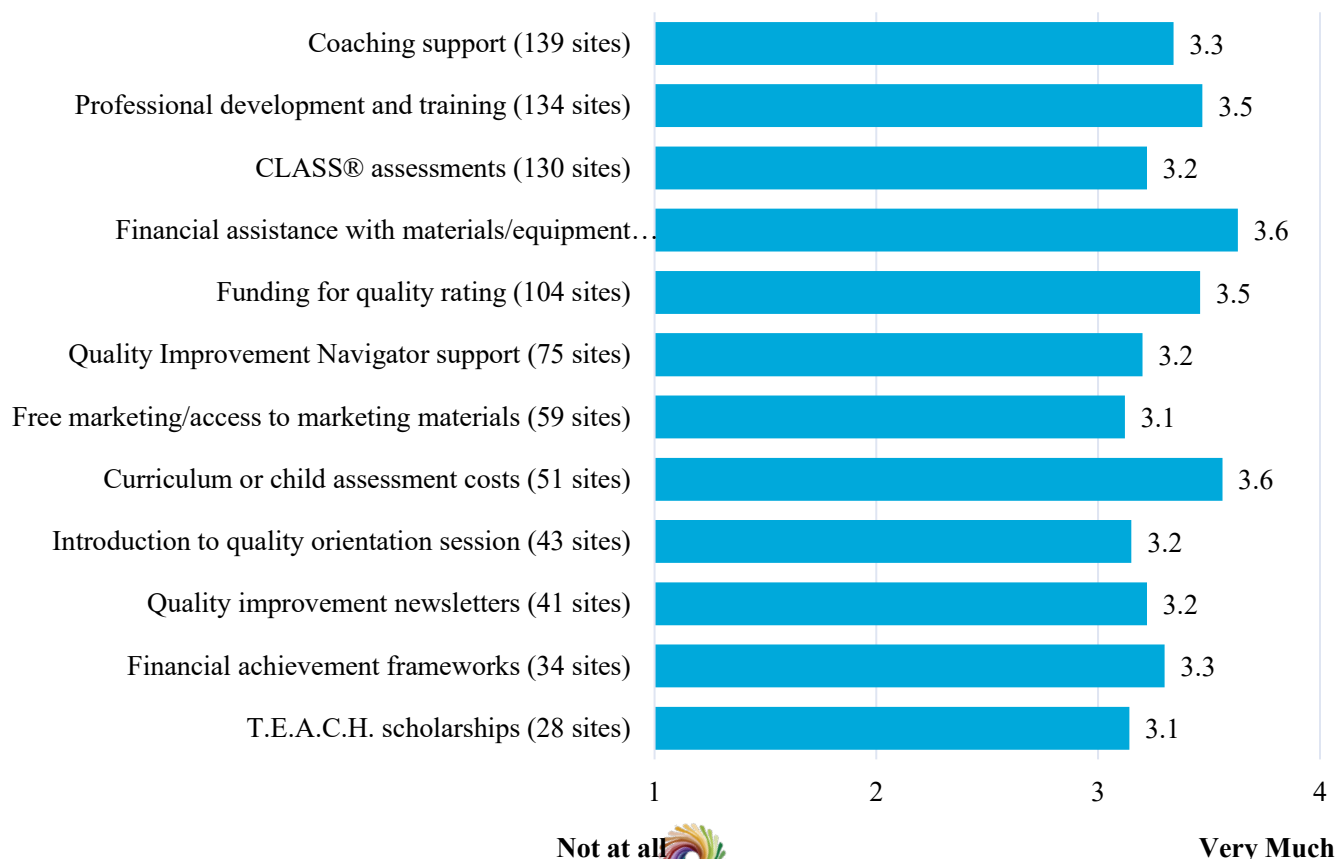
A small number of DPP survey participants ($n = 7$) reported not using any of the quality improvement resources, and six of those were from DPS schools. Most indicated that they did not understand what resources were available.

Only five non-DPP programs participated in any type of quality improvement activities, which included: professional development and training, materials and equipment, college coursework funding, and coaching support. Non-DPP preschools rated coaching and materials and equipment as the most helpful quality improvement resources. On average, non-DPP providers believed that the presence of DPP does *very little* to drive their quality improvement activities.

“All of the things that they have done have made a difference. This is a child care home, so it certainly has taken us to an all-time high. The professional development helps. What we do with materials and things for the classroom helps. What they’ve done to help me get my professionalism and be able to pull my business plan and business stuff together.”

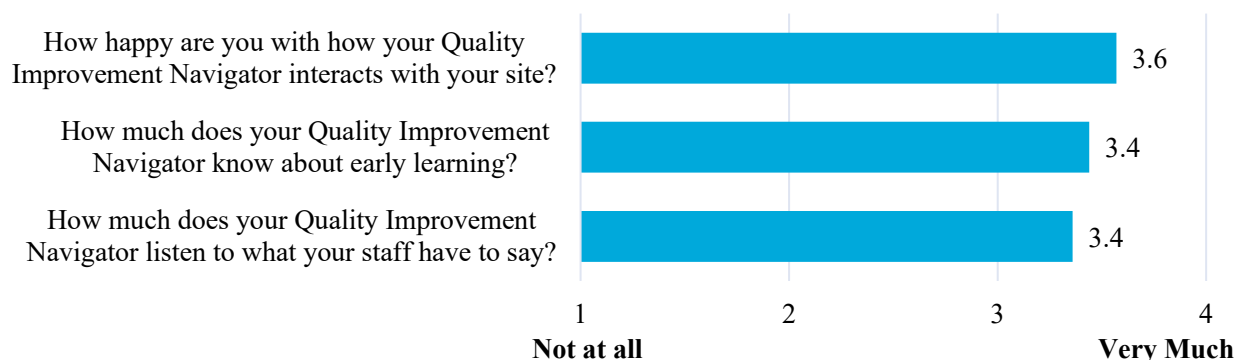
Figure 36 provides average DPP provider ratings of QI resources for the question, “How much did these resources help your preschool improve its quality?” and also shows the number of preschool programs that reported using each resource. The most highly rated QI resources were **financial assistance with materials and equipment** and assistance with **curriculum or child assessment costs** ($M = 3.6$ for both). The most utilized resources – based on the perceptions of survey respondents – were **coaching, professional development and training, and CLASS® assessments**.

Figure 37. Mean Scores for How Much Each QI Resource Helped Improve Preschool Quality ($n = 192$)



QI Navigation. Most respondents from community preschools reported that they were matched with a quality improvement navigator (78 percent). Please note that for DPS, QI navigation occurs at the district level rather than at the school level. The majority of community preschools estimated that they had monthly contact with their navigator (61 percent) and said this frequency of contact was *just about right* (87 percent). Figure 38 gives an overview of providers' thoughts on their quality navigator services.

Figure 38. Providers' Views on their Quality Improvement Navigator (n = 99-100)



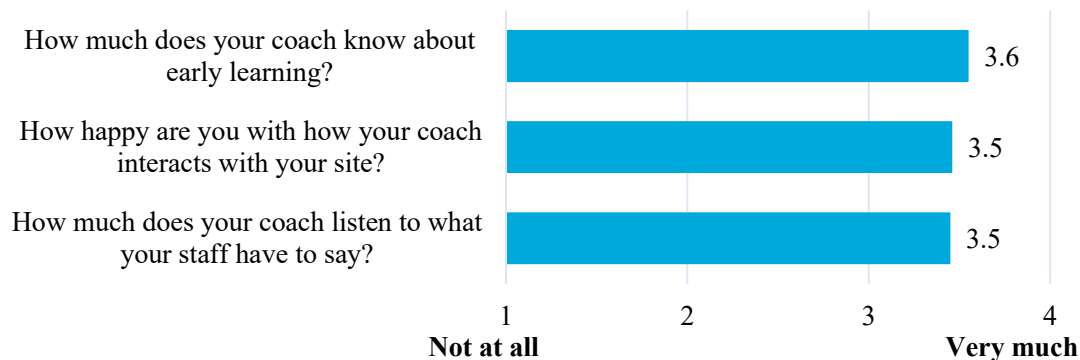
One person commented about his or her QI navigator, *“She’s really good. She emails me on a regular basis, she calls me on a regular basis, sees if I need anything. She makes sure that the funding they do give me, I don’t let it expire. She communicates very well. [She] makes sure I have all my paperwork in line and everything turned in and just checking up to see how my preschool is going, if it’s good quality.”* A couple of participants mentioned the importance of the navigator-site relationship, noting, *“I have not met her in the 2 years that I’ve been here, so there could be more personal contact,”* and *“Staff is more inclined to feel comfortable with and take advice from someone they are able to build rapport with.”*

“It’s like having an umbrella and everyone keeps in touch and can work together and help you get to where you need to go. The coach and navigator work well together.”

Coaching. Most preschool programs reported their DPP coach was from Clayton Early Learning (62 percent), or Denver’s Early Childhood Council (24 percent). A small percentage of respondents (6 percent) did not think they had a DPP coach. Preschools mostly indicated they had contact with their DPP coach monthly (37 percent) or twice a year (30 percent), and believed the amount of DPP coaching was *just about right* (75 percent). Figure 39 shows participants’ views on working with their coach.

Figure 39. DPP Preschools’ Views of Coaching (n = 168-173)





One person highlighted how helpful coaches can be after CLASS® observations, “Once they do the CLASS®, I like that they come back and give you feedback; they let you know how you did and what you can improve on. When they give you the results, with the funding and stuff, they say, ‘you can do this and you can do that.’ The coach has been a big help with the CLASS®.” Another said, “I have an excellent coach. She has helped us with Colorado Shines...she’s done coaching with staff that has been very valuable.” But there was also a sense that coaches need to follow up more: “More follow-up, not just ideas presented and not followed-up on.”

Professional Development. On average, DPP preschool staff attended about four trainings each last year. A large percentage (88 percent) believed the number of trainings offered by DPP was *just about right*. Most found the training location to be *moderately convenient* or *very convenient* (65 percent). For those who did not find the location convenient, they offered alternative options like near or at the provider’s school or in central Denver. Most providers found the training days and times *moderately convenient* or *very convenient* (68 percent). For those who found the training days/times less convenient, they reported the following as more convenient alternatives: weekday afternoons or evenings, weekends, and DPS professional development days.

Suggested Future Training Topics

- Evidence-based practices
- Family engagement
- Professional development systems
- CLASS® or other rating systems
- Curriculum/assessments
- Interventions, behavior management
- Child health and development
- Culture and language

Quality Improvement Plans. Most preschool programs reported that their quality improvement plan was developed recently, either *during the previous school year* (52 percent) or *during the current school year* (35 percent). Many indicated their quality improvement plan *moderately* drives their quality improvement activities (48 percent). Most reported that their preschool program will be able to address *most* (49 percent) or *some* (36 percent) of their quality improvement needs.

However, some were unable to meet all their quality improvement needs, citing, “Some quality improvement needs require substantial money and planning to implement, some require long-term planning to continue and support change in the structure and/or organization of the staff/program/philosophy.” They commented on the need for funds to improve infrastructure like buildings and playgrounds. However, many reported being able to address all quality improvement needs or being on track to meet those needs.

46% of respondents reported that the hardest part of being a DPP preschool is the time and effort to get ready for the rating process.

Ratings and assessments. DPP preschool staff were asked about the rating and assessment process. Many reported that the rating system is challenging and time consuming. One person commented, “The Quality Rating system is too time consuming for teachers and takes away from our time working with and planning for our students. Because DPS has its own



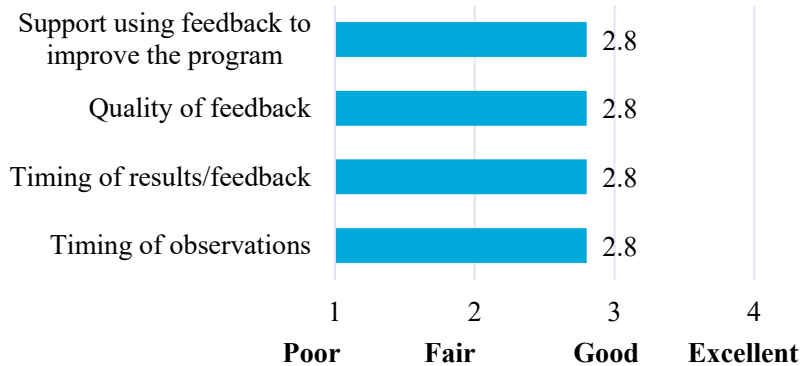
oversights, being rated again is too much.”

CLASS®. The majority of providers indicated their last CLASS® observation was conducted *during the current school year* (53 percent), or *during the previous school year* (35 percent).

Figure 40 displays preschool programs’ views on the CLASS® assessment process. As shown, providers, on average, rated the quality, timing, and support associated with the CLASS® as *fair to good*.

Some commented that the CLASS® tool was useful for improving quality: *“I think the whole school improved because of it, because then we kept on with it. Just small things that we might have done just in passing, but now we concentrate on it.”*

Figure 40. Mean Ratings of the CLASS® Assessment Process (n = 122)

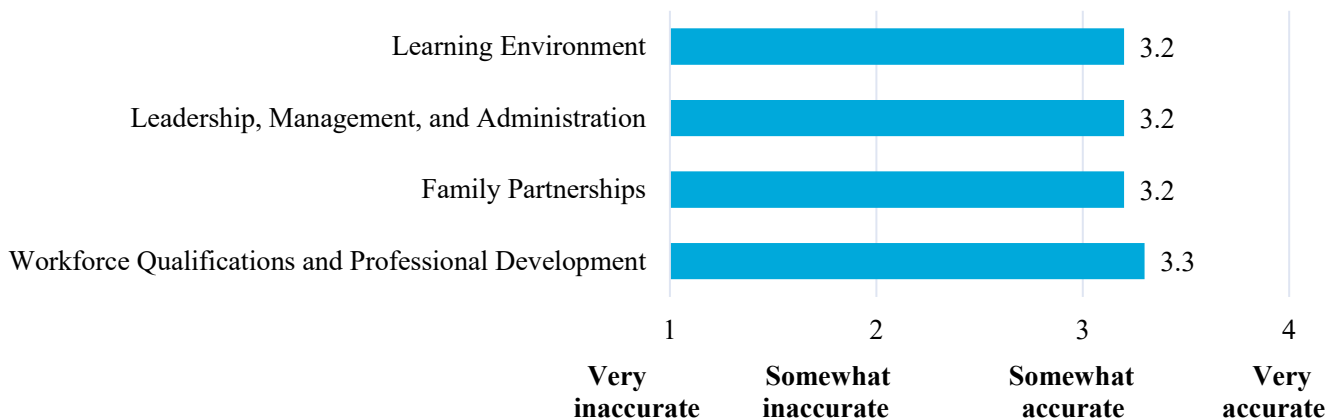


“The CLASS® component really gets to the heart of teaching where real difference can be made.”

Another mentioned that although the assessment was helpful, *“if we don’t have the funds to implement those recommendations, then that puts us in a bad way.”* Another thought the CLASS® assessment is helpful, but believes that some preschools or staff may be in more need of it than others, *“If you score higher, you’re talking to the children, and we know what we’re doing. If they need it, then they should get it.”*

Colorado Shines. Almost 90 percent of DPP preschools indicated that their preschool’s most recent quality rating was under Colorado Shines (rather than the older Qualistar Rating™). Overall, survey respondents believed the most recent Colorado Shines ratings were somewhat to very accurate for each subcategory, $M = 3.2$, on a scale of 1-4. Most non-DPP programs have not had a quality rating ($n = 9$), but those who have had one completed their most recent quality rating through Colorado Shines ($n = 7$).

Figure 41. Perceived Accuracy of Colorado Shines Ratings (n = 123)



Survey participants offered a variety of suggestions to improve the quality rating process. Some preferred a more streamlined process and noted a lack of communication between the quality rating agencies, *“The ratings process was very, very confusing. I was reached out to by about six different people from different organizations.”* Another believed it should be adapted to the type of program or curriculum (i.e. Montessori), home child care center versus a public school, and commented, *“the assessment tools are not flexible enough.”* A few reported how repetitive and

“The incentive for programs to remain at a high quality level is not there as much because the majority of the funding is given to those [programs] who are deemed insufficient. It is difficult to maintain a high quality without the funding for coaching, materials and professional development, and most preschools don’t have budgets to sustain all of the quality improvements required by Colorado Shines.”

time consuming the rating process can be, with one provider commenting, “*Being part of Denver Public Schools, we are rated already, so this type of quality rating is redundant. [My time] always would be better spent in the classroom.*”

Quality Assurance Program. The Quality Assurance Program (QAP) involves an independent review of preschools’ compliance with DPP policies. Overall, preschool programs were not very familiar with the QAP review, with many feeling *not at all familiar* (36 percent) or *slightly familiar* (30 percent). Just over one-half of preschools were unaware if their program had even been selected to participate (51 percent). Of the 18 providers who recalled participating in a QAP review, the majority believed the process was easy. A few described the review as “*easy to participate*” and a “*very simple, straight-forward process.*” Sixteen people rated the helpfulness of the QAP review results, with the majority (56 percent) indicating it was *somewhat helpful*. Some mentioned the process required information and documents that were difficult to acquire (e.g. from families who had moved onto the next school or documents that were already filed away).

Impact

In this section, we summarize views on how DPP support is impacting preschools and which subgroups of programs are benefitting most from being part of DPP.

Overall Perceptions of Impact

Survey participants from nearly all DPP sites (93 percent) believed DPP helps Denver 4-year-olds access quality preschool *moderately* or *very well*. Meanwhile, 69 percent felt that DPP *moderately* or *very much* drives their preschool to improve the quality of its program; about one-third of preschools are less certain that DPP drives their quality improvement, suggesting that other factors may drive quality improvement activities.

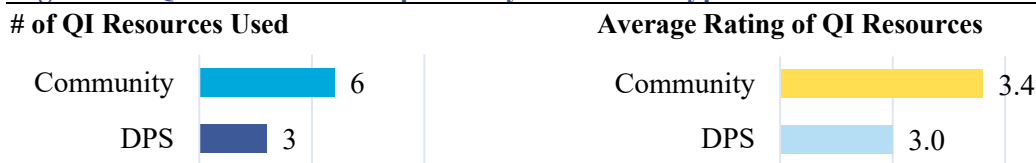
QI Resources

Who benefits most from QI resources? To better understand the patterns of use and perceptions of the effectiveness of DPP’s QI resources, we conducted exploratory analyses to see if there are differences in quality improvement benefit by organizational characteristics, including provider type (DPS/Community), number of students in their last year of preschool before kindergarten, and number of adults (teachers, assistants, and paraprofessionals). We also conducted analyses by the survey respondents’ position, to see if those in different roles within their organization have different views of QI resources. Analyses included correlations, *t*-tests, and ANOVAs, and results of statistical tests are included in Appendix B.

Community preschools reported using more QI resources than did DPS preschools (6 vs. 3 respectively), and they rated the resources as being more helpful to improving quality than did DPS preschools (Figure 42). These differences by preschool type were statistically significant.

“The support and resources that DPP provides private providers like myself make us comparable in the preschool market.”

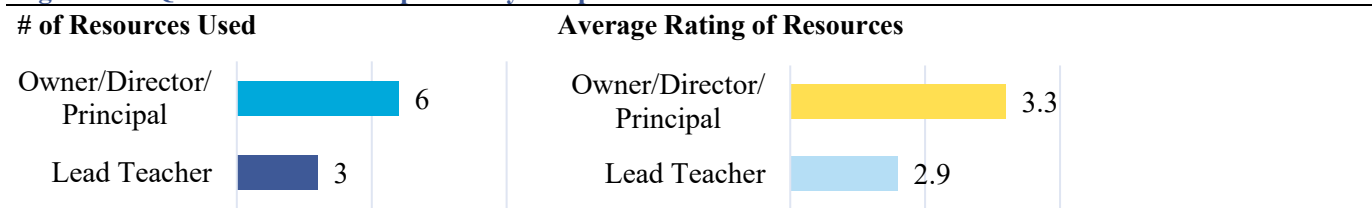
Figure 42. QI Resource Perceptions by Preschool Type



Survey respondents in leadership positions (e.g., preschool directors, principals, or owners) reported using statistically significantly more QI resources and rated the resources as being significantly more helpful to improving quality than did those who were lead teachers (Figure 43).



Figure 43. QI Resource Perceptions by Respondent Position



Finally, number of pre-K students was significantly negatively correlated with use of QI resources and ratings of the resources in improving quality (Figure 44). That is, the fewer students, the more resources used and more highly rated the resources were.

Figure 44. QI Resource Perceptions by Number of Students

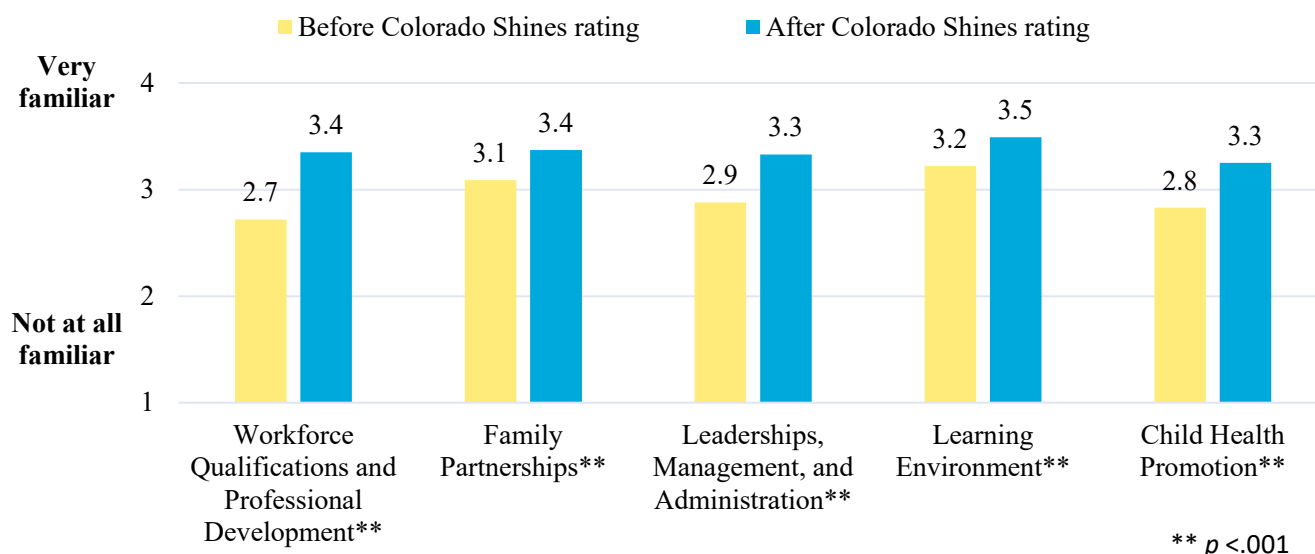


Colorado Shines and CLASS® Ratings

How well do preschools understand the Colorado Shines quality indicators? DPP preschool survey participants rated their familiarity with quality indicators before and after their Colorado Shines rating. For each, there was a statistically significant increase ($p < .001$), suggesting that the rating process was helpful at increasing providers' understanding of these areas (Figure 45). The seven non-DPP providers who indicated Colorado Shines completed their most recent quality rating, on average, reported no significant change in knowledge of the five domains after the rating.

Figure 45. Pre-Post Colorado Shines Knowledge of DPP Preschools ($n = 159-162$)











What factors are related to preschools' quality ratings? We analyzed preschools' most recent Colorado Shines and CLASS® ratings to explore whether characteristics of the preschool and preschools' experiences with QI resources were related to the quality ratings. Results showed that, on average, DPS preschools have higher Colorado Shines and CLASS® scores than do community preschools. Colorado Shines ratings were also associated with the number of the preschool's pre-K students and adults (teachers, assistants, and paraprofessionals) – the more students and adults, the higher the rating.

Scores for the CLASS® Instructional Support and Classroom Organization domains also varied as a function of how many types of QI resources the survey respondent reported receiving – preschools that used more types of QI resources had lower scores. This is to be expected because preschool programs with lower ratings are eligible for more QI support through DPP.


Preschools with higher quality ratings tend to be larger, DPS preschools who report using use fewer of the available QI resources.

Table 9. Factors related to quality ratings



Colorado Shines		
✓ Preschool type		- On average, DPS preschools have higher Colorado Shines ratings than do Community preschools (4.1 vs. 3.2, respectively)
✓ # of Pre-K students		- The more pre-K students served, the higher the Colorado Shines rating
✓ # of Professionals		- The more professionals a preschool has (teachers + teacher assistants/paraprofessionals), the higher the Colorado Shines rating.
CLASS®		
Classroom Organization domain		
✓ Preschool type		- On average, DPS preschools have higher Classroom Organization scores than do Community preschools (6.0 vs. 5.8, respectively)
✓ Use of QI resources		- Preschool programs that used a wider variety of QI resources during the current school year (e.g., coaching, QI navigation, and professional development) had lower Classroom Organization scores.
✓ # of Pre-K students		- The more pre-K students served, the higher the Classroom Organization score.



Emotional Support domain

- ✓ **Preschool type**  - On average, DPS preschools have higher Emotional Support scores than do Community preschools (6.5 vs. 6.3, respectively)

Instructional Support domain

- ✓ **Preschool type**  - On average, DPS preschools have higher Instructional Support scores than do Community preschools (2.9 vs. 2.4 respectively)
- ✓ **Use of QI resources**  - Preschool programs that used a wider variety of QI resources during the current school year had lower Instructional Support scores.

Overall, survey participants' ratings of organizational stress, and their views of DPP's QI navigation, coaching, and professional development were **not** related a preschool's quality rating. Furthermore, ratings were not associated with time spent on quality rating paperwork in the last year. Overall, it appears ratings across preschools are differentiated most by structural aspects of the preschool (e.g. type and size).

Table 10. Factors *not* related to a preschool's quality ratings

- | | |
|---|--|
| <input checked="" type="checkbox"/> Organizational stress (e.g., high turnover, new leadership, teacher unhappiness with schedule) | <input checked="" type="checkbox"/> Professional development (number attended, satisfaction with frequency offered, convenience of location/times offered) |
| <input checked="" type="checkbox"/> Views of the QI navigator (satisfaction with frequency of contact, knowledge of ECE, listening) | <input checked="" type="checkbox"/> Time spent on quality rating paperwork in the last year |
| <input checked="" type="checkbox"/> Views of coaching (satisfaction with frequency of contact, knowledge of ECE, listening) | <input checked="" type="checkbox"/> Having a quality improvement plan in place (yes/no) |
| | <input checked="" type="checkbox"/> Number of Professionals (for CLASS® only) |



CONCLUSION AND RECOMMENDATIONS

The current evaluation was designed to assess the extent to which DPP improved the access of Denver 4-year-olds to quality preschool. Findings suggest that DPP is improving families' access to preschool, with 89 percent reporting that their 4-year-old child was attending their first choice preschool. Additionally, results indicate that DPP has increased access to preschool for some families who wouldn't otherwise be able to afford it, while allowing others to increase the number of hours their child can attend.

Additionally, DPP seems to be having a positive impact on the quality of participating preschools, with 83 percent of all DPP preschools achieving a 3, 4 or 5 on their most recent Colorado Shines rating and 65 percent of DPP children attending a preschool with a 4 or 5 rating. While it is not possible to compare these ratings with those of previous years because the rating system has changed, it is a positive finding that ratings for DPP preschools are generally quite high. This evaluation did note a difference in ratings between DPS and community preschools, with the former being higher for both Colorado Shines and CLASS®. Differences in the infrastructure and administrative capacity between DPS and community preschools may complicate some community preschools' efforts to improve quality at the same pace as their DPS peers.

Given the results presented in this report, the evaluation team identified several potential recommended actions that might support continued growth in efforts to provide Denver 4-year-olds with access to quality preschool. The next page summarizes these recommendations and categorizes them by the entity that would need to take action to see them through.



Denver Preschool Program

- ☐ Target outreach to Southwest Denver, low- income, Hispanic/Latino, and non-English speaking families
- ☐ Build in additional administrative support to community preschools
- ☐ Continue outreach to non-DPP preschools to increase awareness of benefits of participation

Coaches/Navigators

- ☐ Increase consistency of coaching and quality navigator contacts across preschools
- ☐ Increase coaching follow-up and feedback based on CLASS[®] ratings

Community Preschools

- ☐ Bundle DPP application with preschool enrollment forms

Denver Public Schools

- ☐ Print DPP tuition credit on families' ECE invoices
- ☐ Share information with ECE teachers about DPP processes and QI resources

Evaluation

- ☐ Explore discrepancy between most valued vs. most utilized QI resources
- ☐ Research distribution of preschool quality by neighborhood
- ☐ Examine disparity in quality based on family income level

Recommendations for Action



Denver Preschool Program

Based on results indicating that some families in Denver are less aware of the opportunities provided by DPP, we recommend that DPP increase targeted outreach to low income, Hispanic/Latino, and non-English speaking families, especially those who reside in Southwest Denver. Additionally, given the reported disparity in community and DPS preschools' administrative capacity, DPP may want to consider opportunities to build added administrative mentoring or supportive resources into QI menus for community preschools, in particular. Finally, based on reports from non-DPP preschools about their limited knowledge and awareness of DPP resources, DPP may want to further increase outreach to these programs to help them understand the benefits of participation.

Coaches and Navigators

DPP contracts coaching and quality improvement navigation responsibilities out to two Denver entities (Denver's Early Childhood Council and Clayton Early Learning). Survey results from DPP providers suggest that, while the majority of preschools receive regular coaching and navigation services that they are satisfied with, approximately one-fourth of preschools have infrequent contact with their coaches and navigators and would like to have more.

Additionally, based on survey responses indicating a need for more in-depth feedback and support after CLASS® assessments, we recommend exploring options for increasing support in this area, in particular.



Denver Public Schools

Two of the findings related to DPS preschools were that many families are unaware of the tuition support that DPP provides and many ECE teachers are unaware of the DPP's quality improvement opportunities or the structure of the program overall. As a result, the evaluators recommend that DPS begin to print the DPP tuition credit amount on each parent's ECE invoice so they understand where this funding support comes from. Additionally, we recommend that DPS consider ways they can more deeply engage ECE teachers in selecting quality improvement supports and explaining DPP tuition credits to parents.

Community Preschools

Denver Public Schools requires parents applying to ECE to submit a DPP application at the time they apply for ECE. As a result, 73 percent of DPS parents applied to participate in DPP through their child's preschool. By comparison, 32 percent of community preschool parents applied to DPP through their child's preschool. The evaluation team recommends that community preschools adopt DPS' practice of bundling the DPP application with their preschool applications to increase families' use of DPP within community preschools.

Evaluation

The current evaluation provided rich information about DPP operations, program and family perceptions, and the extent to which DPP increases access to quality preschools. At the same time, it also highlighted several areas where more information is needed to understand family and preschool needs and to continue to improve preschool access and quality throughout Denver. In particular, additional research is needed to explore the discrepancy between what preschools noted between the QI resources they most value versus those that they most utilize. Additionally, future evaluation efforts should examine the disparity in preschool quality based on family income level. In particular, we need to understand why higher income families seem more likely to attend lower quality preschools than their lower income peers. Finally, because families indicate that the number one factor that drives their preschool selection is location, the next evaluation should research the distribution of preschool quality by neighborhood to confirm whether all regions of the city have sufficient access to high quality preschool options.



The recommendations in this report are those of the researchers conducting this evaluation, and do not necessarily reflect the views or priorities of the Denver Preschool Program staff or board.

For any questions about the research conducted to support this evaluation, please contact Meg Franko, PhD, at meg.franko@du.edu.



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APPENDIX A. PARENT SURVEY SAMPLING

We selected the sample using family application information from MetrixIQ, DPP's data management partner. The population of DPP families included 5,301 families that applied to the Denver Preschool Program for the 2016-2017 school year as of February 2017. Those who were classified as "denied," "pending," or "approved – inactive," indicating they did not attend DPP for the school year, were excluded from the sample. Families who did not identify their home language as English or Spanish (Arabic, "Other," Russian, Vietnamese) or did not identify their home language at all, were excluded, as well. Only English and Spanish-speaking families were selected due to Butler's ability to provide translated materials.

The population was then stratified by the following categories: family's residing region, the type of preschool (community or Denver Public Schools), and classified income tier. For example, strata 1 included families living in the northeast region, were from community preschools, and were classified as tier 1 income. If any of these fields were blank due to missing or incorrect information, the family was excluded from the sample. We then calculated the proportion of families that each strata represented in the overall population and used that to include the same proportions in our sample of 650 families (e.g., if one of the strata represented 10 percent of all DPP families, we randomly selected $.10 \times 650 = 65$ families for the sample).

To ensure that the sample was representative of the overall population of DPP families, we sent the survey to an additional sample of families in May ($n = 119$) who were from strata with lower response rates (Denver Public Schools, Tuition Tiers 1 and 2, and Northwest and Southwest regions of the city) via postal mail and email. The sample was selected from the original sample population ($N = 3,501$), but also excluded families who did not provide an email address.

Representativeness of DPP Parent Sample

	Number of Responses	Representativeness of the Sample	
		% in Sample	% in Population
Region			
Northeast	139	48%	53%
Northwest	44	15%	14%
Southeast	32	11%	9%
Southwest	75	26%	24%
Type			
Community	89	31%	32%
DPS	198	68%	68%
Both	3	1%	n/a
Income Tier			
1	82	28%	37%
2	59	20%	21%
3	20	7%	6%
4	18	6%	6%
5	74	26%	20%
6	37	13%	10%



APPENDIX B. BIVARIATE ANALYSES OF PRESCHOOLS' VIEWS OF QUALITY IMPROVEMENT RESOURCES

Use of QI resources (sum of types of QI resources used, based on survey respondent report)

Independent/ Second Variable	Test Results	Descriptive Statistics				
Type of provider	$t(157.81)= 7.86, p < .001$ (equal variance not assumed)		Community or DPS	N	Mean	Std. Deviation
		Use of QI resources - Sum	Community	129	5.92	2.82
			DPS	63	3.05	2.13
Number of pre-K children	$r = -.25, p = .001$		N	Mean	Std. Deviation	
		Use of QI resources – sum	189	4.94	2.94	
		Number of pre-K children	189	29.76	33.20	
Number of adults	$r = -.08, p = .24$		N	Mean	Std. Deviation	
		Use of QI resources – sum	191	4.95	2.92	
		Number of adults	191	5.63	4.50	
Job title	$F(2, 53.82) = 27.88, p < .001$ (Welch’s test) Games-Howell post hocs: mean differences between owner/principal/director and lead teachers, and between lead teachers and other positions, were statistically significant ($p < .001$).		N	Mean	Std. Deviation	
		Use of QI resources - Sum	Owner/ principal/ director	128	5.60	3.00
			Lead Teacher	41	2.85	1.77
			Other	21	5.52	2.40
Organizational stress	$r = .12, p = .17$		N	Mean	Std. Deviation	
		Use of QI resources – sum	136	5.01	2.92	
		Organizational stress	136	1.91	1.23	



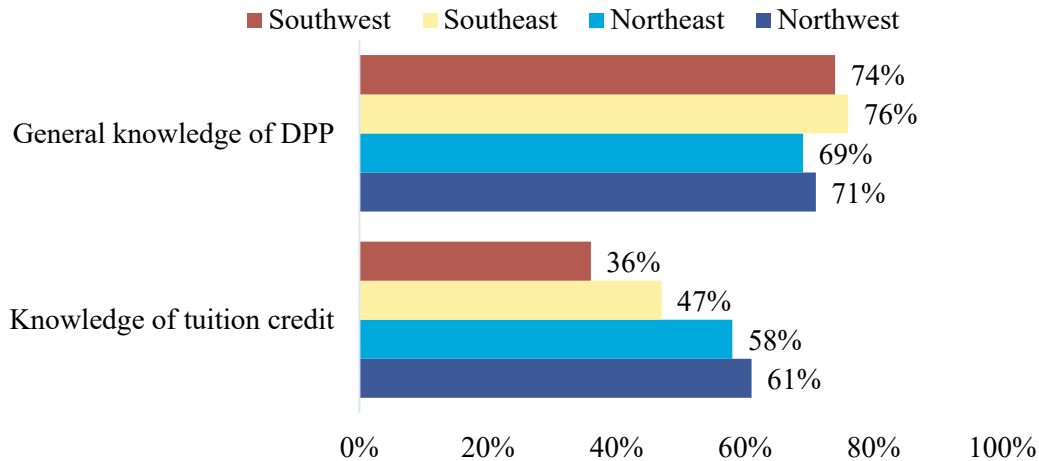
Rating of how useful QI resources utilized are at improving quality (mean score across items)

Independent/ Second Variable	Test Results	Descriptive Statistics				
Type of provider	$t(180)= 3.09, p = .002$		Preschool type	N	Mean	Std. Deviation
		Average rating of how helpful the selected QI resources were	Community	128	3.37	0.58
			DPS	54	3.05	0.74
Number of children	$r = -.15\ p = .04$		N	Mean	Std. Deviation	
		Average rating of how helpful the selected QI resources were	179	3.28	0.65	
		Number of pre-K children	179	29.20	33.91	
Number of professionals	$r = -.14\ p = .06$		N	Mean	Std. Deviation	
		Average rating of how helpful the selected QI resources were	181	3.28	0.65	
		Number of adults	181	5.57	4.52	
Job title	$F(2, 53.82) = 27.88, p < .001$ (Welch’s test) Games-Howell post hocs: mean differences between owner/principal/director and lead teachers, and between lead teachers and other positions, were statistically significant ($p < .001$).		Position	N	Mean	Std. Deviation
		Average rating of how helpful the selected QI resources were	Owner/principal/director	124	3.32	0.60
			Lead Teacher	36	2.89	0.78
			Other	21	3.62	0.40
Organizational stress	$r = .04\ p = .66$		N	Mean	Std. Deviation	
		Average rating of how helpful the selected QI resources were	131	3.23	0.65	
		Organizational stress	131	1.91	1.24	

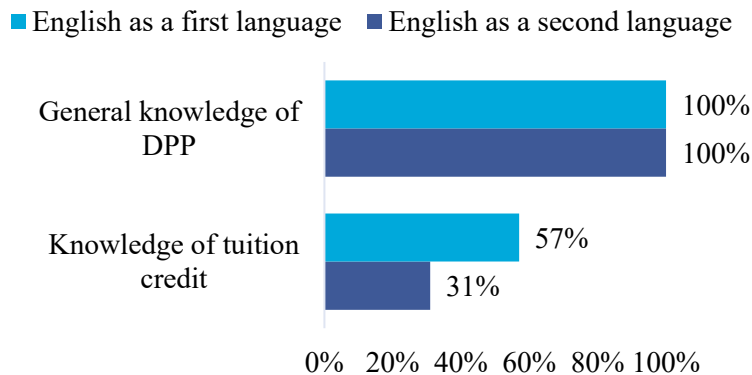


APPENDIX C. BIVARIATE ANALYSES OF PARENTS' SURVEY RESPONSES

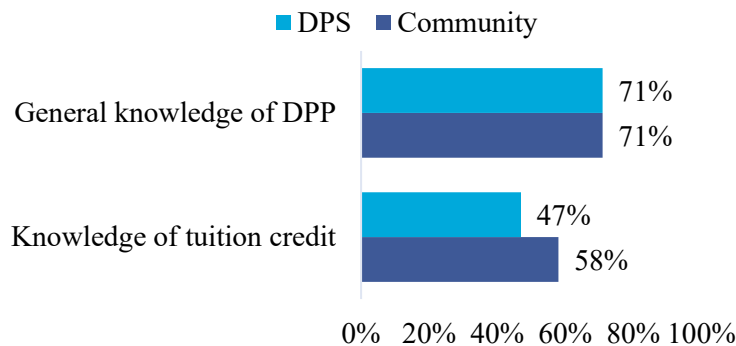
Parents' Knowledge of DPP by region of Denver where family lives (*n* = 201-282)



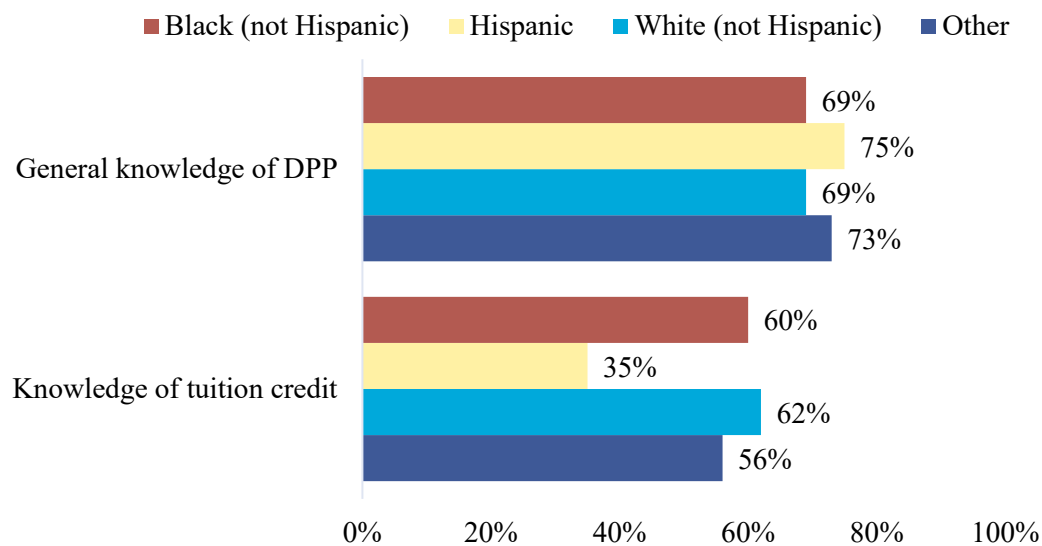
Parents' Knowledge of DPP by language (*n* = 208-209)



Parents' Knowledge of DPP by preschool type (*n* = 199-282)



Parents' Knowledge of DPP by race/ethnicity (*n* = 208-291)



Parents' Knowledge of DPP by Reported income (*n* = 183)

	Average Income	Range
General knowledge of DPP		
Nothing or very little	--	--
Some or a lot	\$54,408	\$0 - \$280,000
Knowledge of tuition credit		
Nothing or very little	\$39,597	\$0 – \$260,000
Some or a lot	\$70,397	\$0 – \$280,000

