



AGENDA ITEM: 12
DATE OF MEETING: July 23, 2015
ACTION: _____
INFORMATION: X

EVALUATION OF CHILD SIGNATURE PROGRAM 1 AND 3

BACKGROUND

First 5 California (F5CA) launched the Child Signature Program (CSP) in partnership with county commissions as an expansion of its previous early learning program, the Power of Preschool (PoP). In 2012, the Commission approved an investment of up to \$45 million per year for three years for CSP. The purpose of this strategic investment was to increase the quality of early learning programs across the state and improve children's healthy development and school readiness. CSP builds upon F5CA's commitment to early learning, ensuring that children ages 0 to 5 benefit from high-quality early education, early intervention, family engagement, and support to realize optimal potential in school and life (Strategic Plan Goal 1.2).

This item summarizes findings from the report entitled *Evaluation of the Child Signature Program: 2013–14 School Year* for classrooms participating under RFAs (Request for Application) 1 and 3. As in the previous report, this new report demonstrates the usefulness of collaboration for evaluating early care and education programs. Acknowledgments in the attached presentation attest to the extensive collaboration between F5CA staff with First 5 county commissions, local site administrators, classroom teachers, and other Early Childhood Education (ECE) support staff. The full report will be available on the F5CA website at www.cffc.ca.gov/research/research_program_reports.html.

Eight counties (Los Angeles, Merced, San Diego, San Francisco, San Joaquin, Santa Clara, Ventura, and Yolo) participated in CSP under RFA 1 (CSP 1) during the 2012–13 school year.¹ In 2013, classrooms from two additional counties, San Mateo and Orange, (CSP 3) were added.

¹ The evaluation focuses on data collected for CSP 1 and 3 classrooms and sites only—it does not cover classrooms or sites that participated in CSP 2.

SUMMARY OF FINDINGS

This report updates the Child Signature Program (CSP) evaluation with data collected during the 2013–14 school year. Key findings focus on program targeting; characteristics of children served, including dual language learners (DLL), children with special needs, and migrant children; classroom teaching staff characteristics; classroom quality; parent participation, and child development.

Program Targeting

- CSP 1 and 3 serve children from low income households or children living in attendance areas of schools with low Academic Performance Index (API) scores. Low income and low API serve as proxy measures for children who are considered at risk.
- The majority of CSP classrooms serve children of families that meet either state or federal income eligibility standards and are low-income. With regard to low-income households, 79 percent of CSP 1 and 3 classrooms were either State Preschool or Head Start classrooms. Both State Preschool and Head Start programs enroll children based on program-specific income-eligibility requirements.
- Sixty-four percent of Quality Enhanced (QE) classrooms and half of Maintenance of Effort (MOE) classrooms were located in school catchment areas scoring in the bottom three deciles of the API.

Children Served

- A total of 24,955 children were served by CSP 1 and 3 during 2013-14.
- Preschool-age children (3 to 5 years old) accounted for 96 percent of children in CSP. Infants and toddlers accounted for four percent of children served.
- Fifty-two percent of children served were of Hispanic or Latino ethnicity.

Dual Language Learners, Children with Special Needs, and Children of Seasonal Migrants

- Dual Language Learners (DLLs) made up 57 percent of children in CSP 1 and 3 classrooms.
- Spanish speaking DLLs accounted for 82 percent of all DLLs served, followed by Chinese at 7 percent; and Filipino/Tagalog, Vietnamese, Korean, Arabic, Russian, Japanese, Punjabi, Hmong, and Armenian all at under 1 percent.
- Children with special needs made up three percent of all children served.

- Children of seasonal migrants made up less than one percent of all children served.
- CSP 1 and 3 served 1,186 additional children, and 1,014 additional DLLs during the 2013–14 school year compared to the prior school year.

Classroom Teaching Staff

- Classroom teaching staff were well qualified. Nineteen percent held associate’s degrees and 47 percent held at least a bachelor’s degree. Teaching staff include lead teachers, assistant teachers, and teacher aides.
- The percent of teaching staff with Bachelor’s degrees increased 13 percent since the 2012–13 school year.
- During the 2013–14 school year, an estimated 54 percent of teaching staff in QE classrooms held ECE- or Child Development (CD)-related degrees, as opposed to 29 percent in MOE classrooms. This can be compared to data from 2012–13 that show 39 percent of teaching staff in QE classrooms and 35 percent in MOE held ECE or CD degrees.
- During the 2013–14 school year, the average number of pooled ECE or CD units held by teaching staff per classroom was higher for QE classrooms compared to MOE classrooms (77 units versus 55 units).
- CSP 1 and 3 classroom teaching staff were diverse in terms of race and ethnicity but not in terms of gender. Forty-nine percent of CSP teaching staff were Hispanic or Latino, followed by Other at 16 percent; White at 15 percent; Asian at 11 percent; Black or African American at eight percent; Multiracial at one percent; and American Indian or Alaska Native, and Native Hawaiian or Pacific Islander at less than one percent. Ninety-six percent of teachers in CSP 1 and 3 were female.

Classroom Quality

- On average, classroom environments in CSP 1 and 3 were above a “good” level of quality with a global score of 5 or above for Environment Rating Scale (ERS) family of instruments. Eighty-six percent of preschool classrooms and 87 percent of infant/toddler classrooms achieved ERS global scores of 5 or above.
- On average, mean Early Childhood Environment Rating Scale (ECERS) global scores for MOE classrooms were a quarter of a point higher than QE classrooms. However, mean ECERS subscale scores were not statistically different across classroom quality levels.

- The majority of CSP 1 and 3 evaluation classrooms met CSP standards for Classroom Assessment Scoring System[®] (CLASS[®]) of 5 for Emotional Support, 3 for Classroom Organization, and 2.75 for Instructional Support domains. Ninety-six percent of CSP 1 and 3 preschool classrooms met CLASS Emotional Support domain score standards, 100 percent met Classroom Organization standards, and 59 percent met Instructional Support standards.
- Fifty-eight percent of evaluation classrooms met all CSP domain standards for CLASS scores.
- CLASS Instructional Support domain scores were positively associated with the pooled number of ECE or CD units held by classroom teaching staff.

Child Development

- Teachers assess children's development using an observational assessment tool, the Desired Results Developmental Profile (DRDP).
- In QE classrooms, teachers report more ratings in the highest two developmental levels of DRDP at the end of the year as compared to MOE classrooms.

Parent Involvement

- The total number of participating parents (active parents) increased from 21,303 to 31,823 during the 2013–14 school year—a 49 percent increase in parent participation compared to the prior year.
- Participation rates per classroom (active parents per classroom) for educational opportunities, classroom volunteer activities, and social support activities all increased during the 2013–14 school year, but participation rates for advisory boards and parent teacher conferences decreased slightly.
- Overall, parents participated more on site and in classroom activities.

ATTACHMENT

Presentation: *Evaluation of the Child Signature Program: 2013–14 School Year*

Evaluation of the Child Signature Program: 2013–14 School Year

David Dodds, PhD, MPH
Deputy Director
Evaluation Division

California Children and Families Commission Meeting
July 23, 2015



Introductory Remarks

- CSP evaluation builds from one year to the next (2012-13 through 2014-15)
- CSP 1 and 3 evaluation final data submission on July 31, 2015
- CSP 1 and 3 extension for 2015-16 will collect aggregate site data (RTT–ELC common data file format)
- Final CSP evaluation report in 2016

Outline

- Program Overview
- Evaluation Overview
- Program Targeting
- Classrooms and Children
- Classroom Teaching Staff
- Classroom Quality
- Child Development
- Parent Involvement

Program Overview

Three Essential Program Elements

- Instructional strategies and teacher-child interactions
- Social-emotional development
- Parent involvement and support

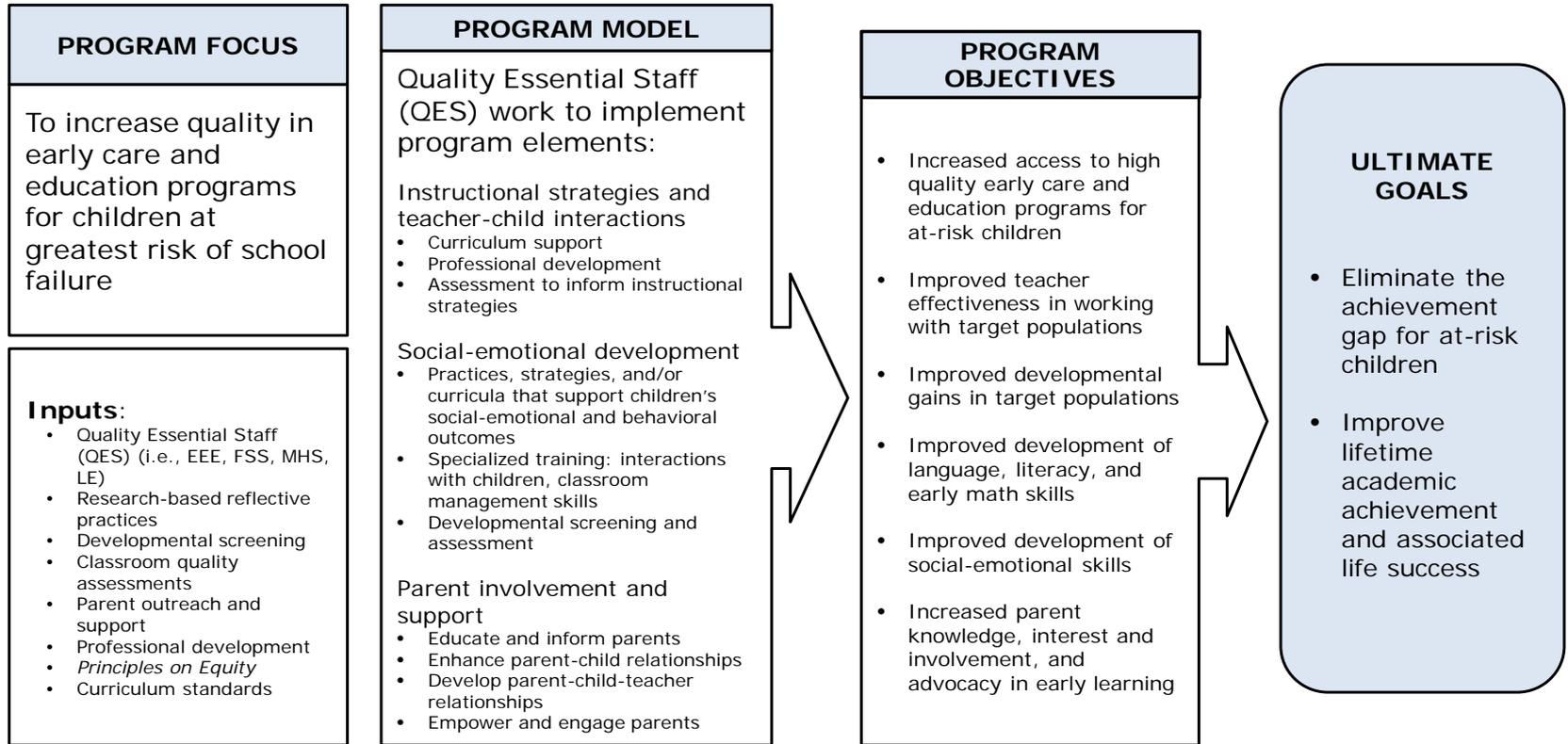
Program Overview

Quality Essential Staff (QES)

- Program Coordinator (PC)
- Early Education Expert (EEE)
- Family Support Specialist (FSS)
- Mental Health Specialist (MHS)
- Local Evaluator (LE)

Child Signature Program (CSP)

Enhancing quality in early care and education programs for at-risk children



OVERARCHING DESIGN PRINCIPLES

- Interventions based on research and scientific theory (developmental psychology, neuropsychology, economics): *The Productivity Argument for Investing in Young Children (Heckman and Masterov, 2004)*
- Alignment with California Department of Education documents: *California Infant/Toddler Learning & Development Foundations, Preschool Learning Foundations, California Preschool Curriculum Framework, California Infant/Toddler Curriculum Framework, and California Code of Regulations, Title 5*
- First 5 California's *Principles on Equity*: Inclusive governance and participation, access to services, legislative and regulatory mandates, results-based accountability
- First 5 California vision that all children in California enter school ready to achieve their greatest potential
- At-risk children are defined as "children at greatest risk of school failure." This includes children living in catchment areas with an API ranking at or below the 3rd decile, Dual Language Learners (DLLs), children with special needs, and children of seasonal migrants

Evaluation Overview

- How well does CSP reduce the achievement gap for at-risk young children?
- Evaluation themes focus on program processes and outcomes
- Evaluation design: sampling by classroom quality level

Evaluation Themes

- **Program Targeting**
 - Did CSP serve its target population of at-risk children?
- **Classrooms and Children**
 - What are the demographic characteristics of children who participated in CSP?
 - Are CSP classrooms diverse by race/ethnicity and language?
- **Classroom Teaching Staff**
 - What are the demographic characteristics of teachers in CSP?
 - Are teachers in CSP diverse by race/ethnicity and language?
 - Are teachers in CSP well qualified?
- **Classroom Quality**
 - Do classrooms provide high quality environments and interactions?
 - Did Quality Enhanced (QE) classrooms show higher levels of quality than Maintenance of Efforts (MOE) classrooms?
- **Child Development**
 - Did classroom quality level affect child development?
- **Parent Involvement**
 - How did parents participate?

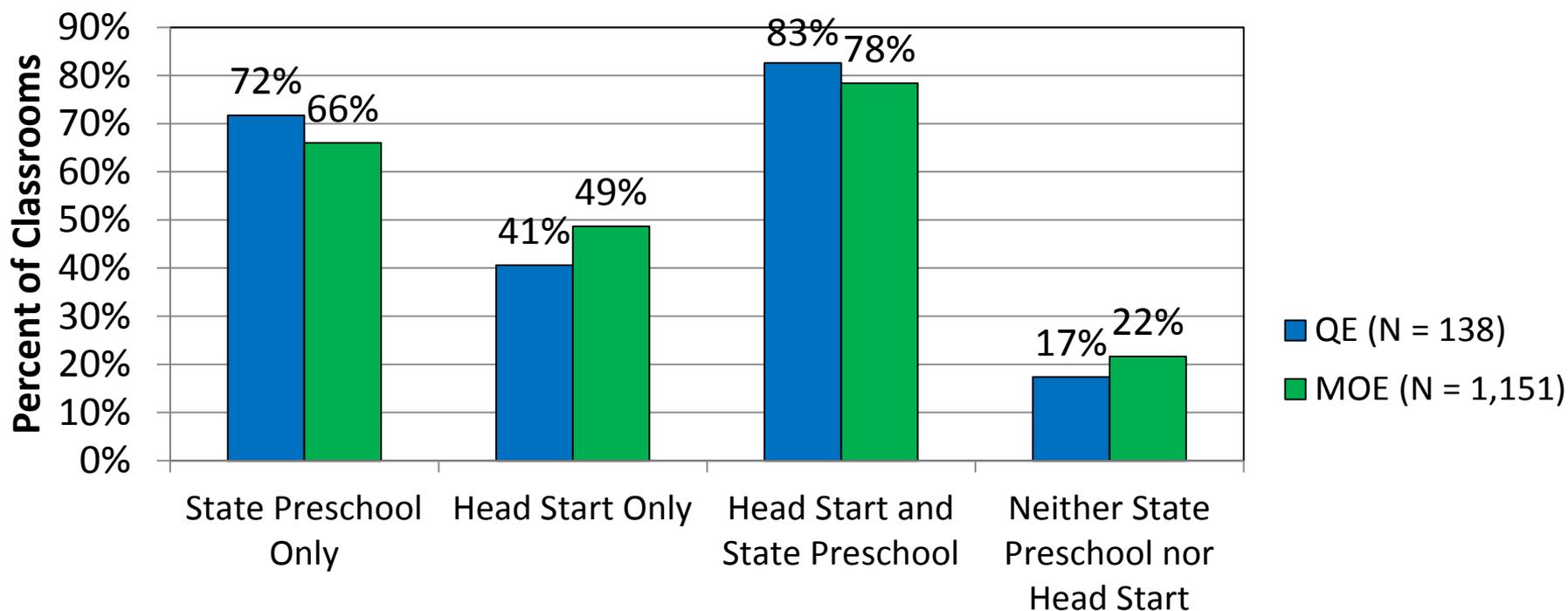
Sampling by Classroom Quality Level

- Classroom Quality Levels
 - Quality Enhanced (QE) and Maintenance of Effort (MOE)
 - All CSP 3 classrooms are Quality Enhanced
- Evaluation and Non-Evaluation Classrooms
 - Evaluation Classrooms = all QE + MOE random sample
 - Non-Evaluation Classrooms = MOE classrooms not sampled
- CSP 1 and 3 Counties:
 - Los Angeles, Merced, San Diego, San Francisco, San Joaquin, Santa Clara, Ventura, Yolo, Orange, San Mateo

| Classroom Quality Level | Evaluation Classrooms | Non-Evaluation Classrooms | Total |
|--------------------------------|------------------------------|----------------------------------|--------------|
| QE | 138 | 0 | 138 |
| MOE | 124 | 1,027 | 1,151 |
| Total | 262 | 1,027 | 1,289 |

Program Targeting: Income Eligibility

- CSP serves children at-risk of school failure as evidenced by participation of children from low income households.
- Seventy-nine percent of classrooms met either Head Start or State Preschool eligibility requirements (i.e., household income is below poverty line or is less than 70 percent of State Median Income [SMI]).



Funding Sources: State Preschool and Head Start

Classrooms and Children: Age Groups

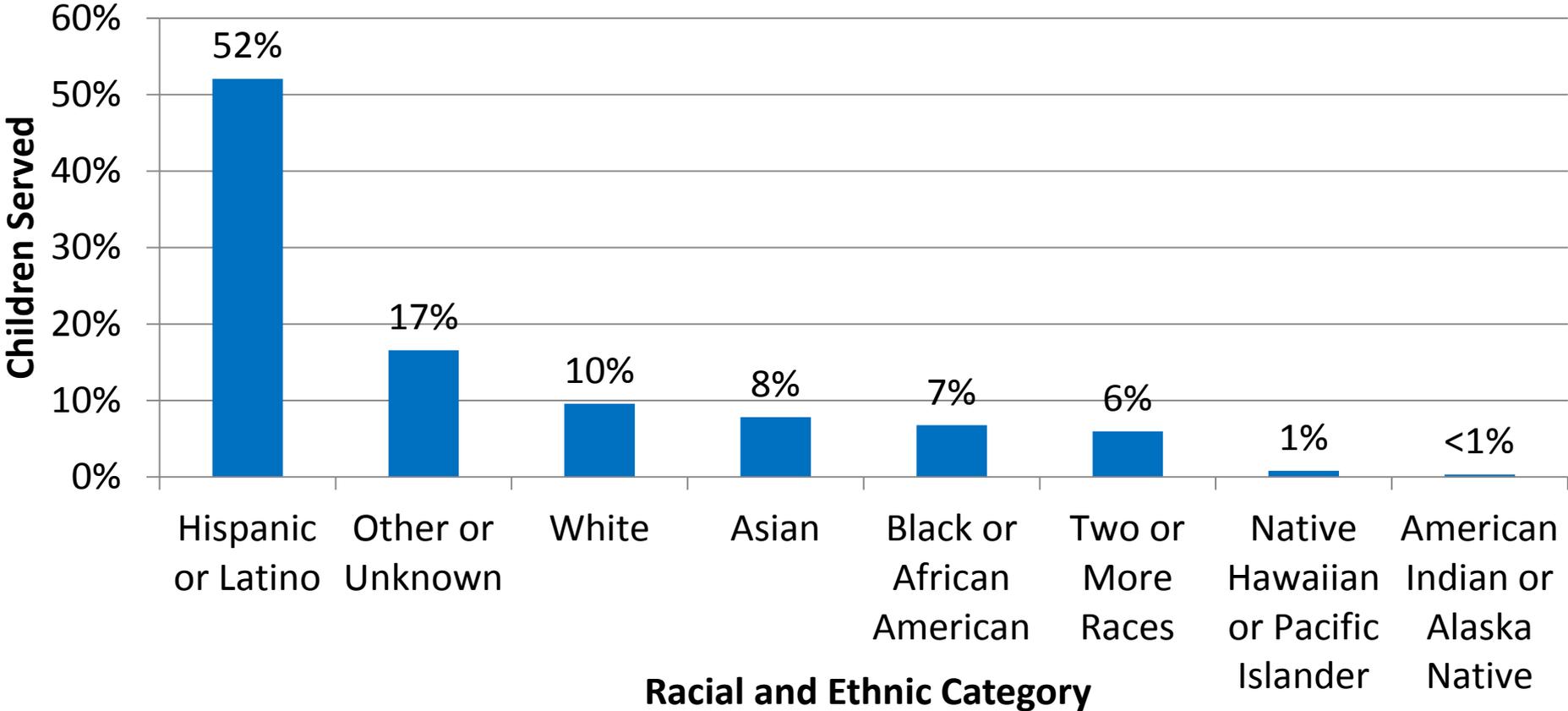
- Ninety-six percent of CSP 1 children are of preschool age (3-5 years old).
- Eighty-seven percent of CSP 1 children are concentrated in the MOE preschool classrooms.
- Four percent are infants or toddlers.

| Age | Preschoolers | | Infants/Toddlers | | Total Children Served | |
|-------------------------|--------------|---------|------------------|---------|-----------------------|---------|
| Classroom Quality Level | Count | Percent | Count | Percent | Count | Percent |
| QE | 2,382 | 10% | 239 | 1% | 2,621 | 11% |
| MOE | 21,572 | 87% | 713 | 3% | 22,285 | 89% |
| All | 23,954 | 96% | 952 | 4% | 24,906 | |

Note: Percents are for N = 24,906 children reported by age group and N = 24,955 total children served.

Classrooms and Children: Racial/Ethnic Diversity

- Fifty-two percent of CSP 1 and 3 children are of Hispanic or Latino ethnicity (the largest ethnic group).



Note: Percents are for N = 20,718 race and ethnicity records for N = 24,955 total children served.



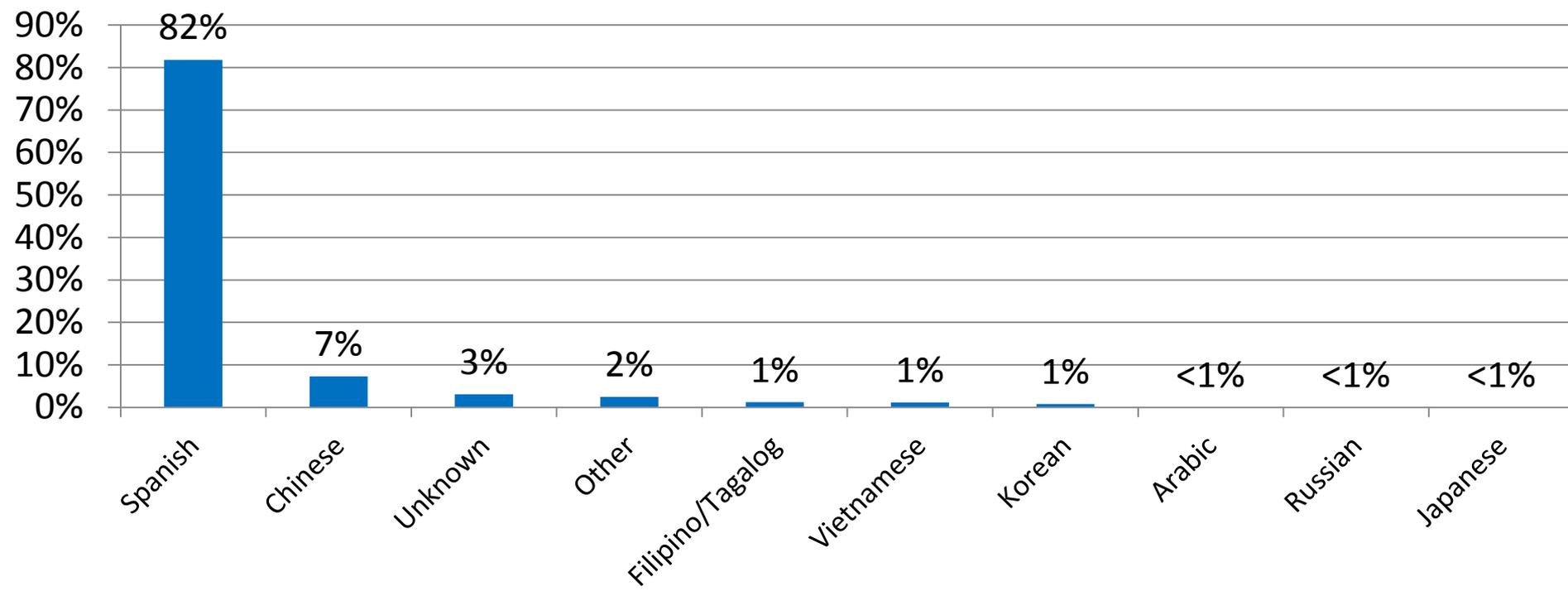
Classrooms and Children: Special Target Populations

- 14,179 dual language learners (DLL) (57%)
- 859 children with special needs (3%)
- 100 children of seasonal migrants (less than 1% of all children served)

| Classroom Quality Level | DLLs | SN Children | Children of Seasonal Migrants | Among Total Children Served |
|-------------------------|--------------|-------------|-------------------------------|-----------------------------|
| QE | 1,660 (63%) | 160 (6%) | 3 (<1%) | 2,639 |
| MOE | 12,519 (56%) | 699 (3%) | 97 (<1 %) | 22,316 |
| All | 14,179 (57%) | 859 (3%) | 100 (<1%) | 24,955 |

Classrooms and Children: Dual Language Learners

- Fifty-seven percent of children in CSP 1 and 3 were DLL.
- Spanish-speaking DLL accounted for 82 percent of DLL children.



Note: Percents are for N = 14,607 DLL records for N = 14,179 total DLL.

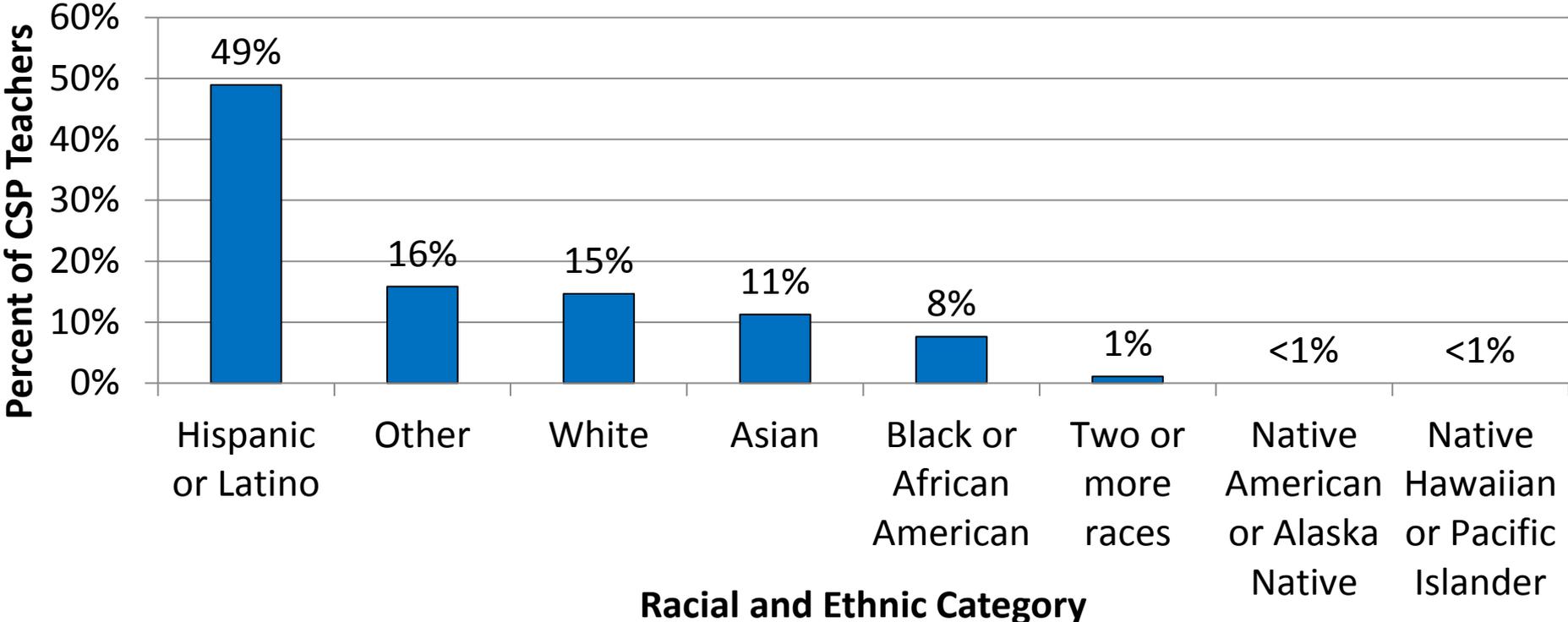
Classroom Teaching Staff

- Teachers
- Assistant Teachers
- Teacher Aides

Note: Classroom Teaching Staff does not include Quality Essential Staff.

Classroom Teaching Staff: Diversity

- CSP classroom teaching staff are diverse in terms of race and ethnicity.
- Teaching staff are not diverse in terms of gender—97 percent of teaching staff are female.



Note: N = 1,949 classroom teaching staff



Classroom Teaching Staff: Qualifications

- Classroom teaching staff are well qualified: forty-seven percent held Bachelor's degrees.
- Fifty-four percent of teaching staff in QE classrooms and 29 percent of teachers in MOE classrooms held early childhood education (ECE) or child development (CD) related degrees.

| Early Childhood Education/Child Development Units or Degrees Held | QE | MOE |
|---|-----|-----|
| Average ECE or CD Units Per Classroom ^a | 77 | 55 |
| ECE or CD Associate's degrees ^b | 38% | 52% |
| ECE or CD Bachelor's degrees | 53% | 45% |
| ECE or CD Master's degrees | 8% | 4% |
| Teaching Staff with ECE or CD degrees ^c | 54% | 29% |

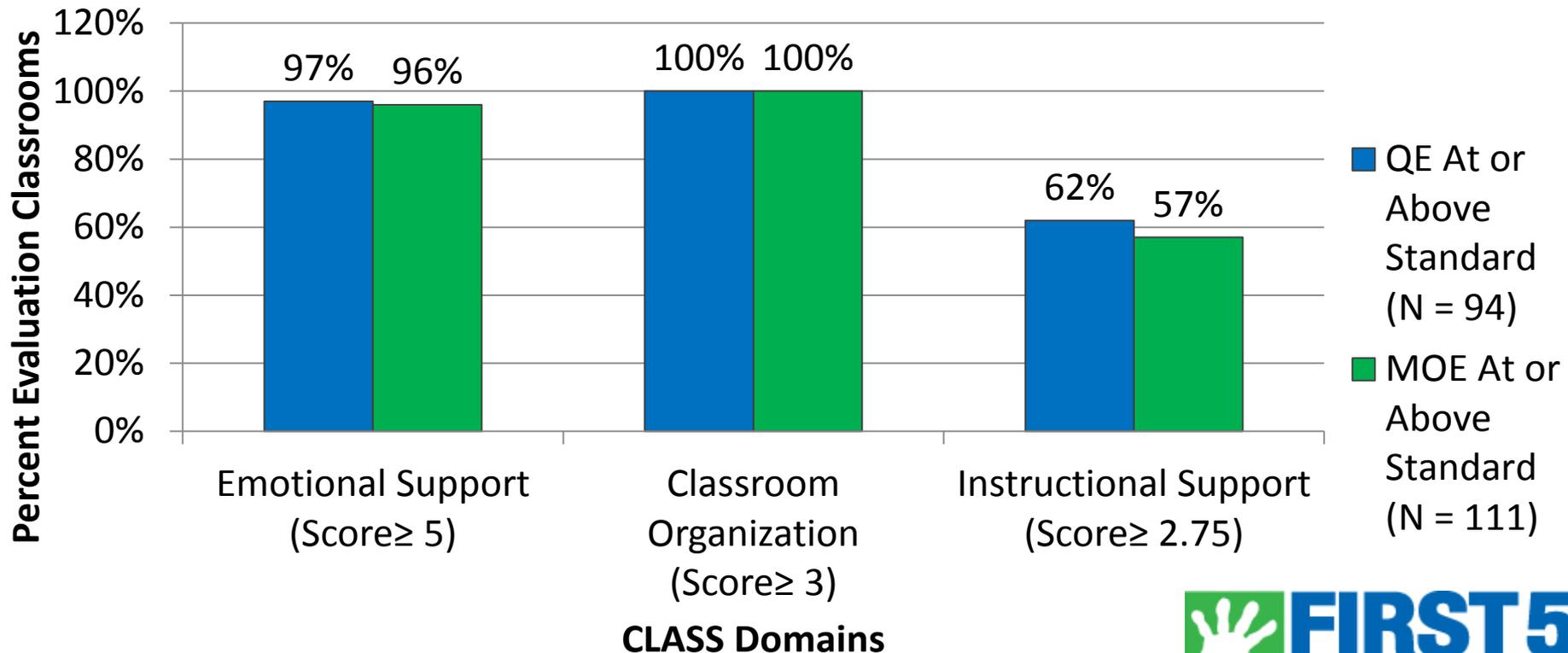
a. N = 1,149 classrooms (MOE = 1,023, QE = 126) with data on ECE units held by teaching staff. Difference in mean ECE or CD units between QE and MOE is statistically significant at the $p < .0001$ level.

b. For data on ECE or CD degree levels, N = 2,901 teaching staff records (MOE = 2,582, QE = 319). Teachers may be duplicated across classroom quality levels.

c. Percents based on N = 2,901 teaching staff records for approximate N = 1,949 teaching staff working across CSP classroom quality levels.

Classroom Quality: CLASS®

- The majority of classrooms met CLASS domain standards of 5 for Emotional Support, 3 for Classroom Organization, and 2.75 for Instructional Support.
- However, just 62 percent of QE and 57 percent of MOE classrooms met Pre-K domain score standards for Instructional Support.
- Fifty-eight percent of evaluation classrooms met all CSP domain score standards.



What might explain variation in CLASS® Instructional Support scores?

- CLASS Instructional Support domain scores were positively associated with the pooled number of ECE or CD units held by teaching staff in the classroom. This pattern was also found in data from the 2012–13 school year.
- Number of pooled ECE units explains about 12 percent of the variation in CLASS Instructional Support domain scores.

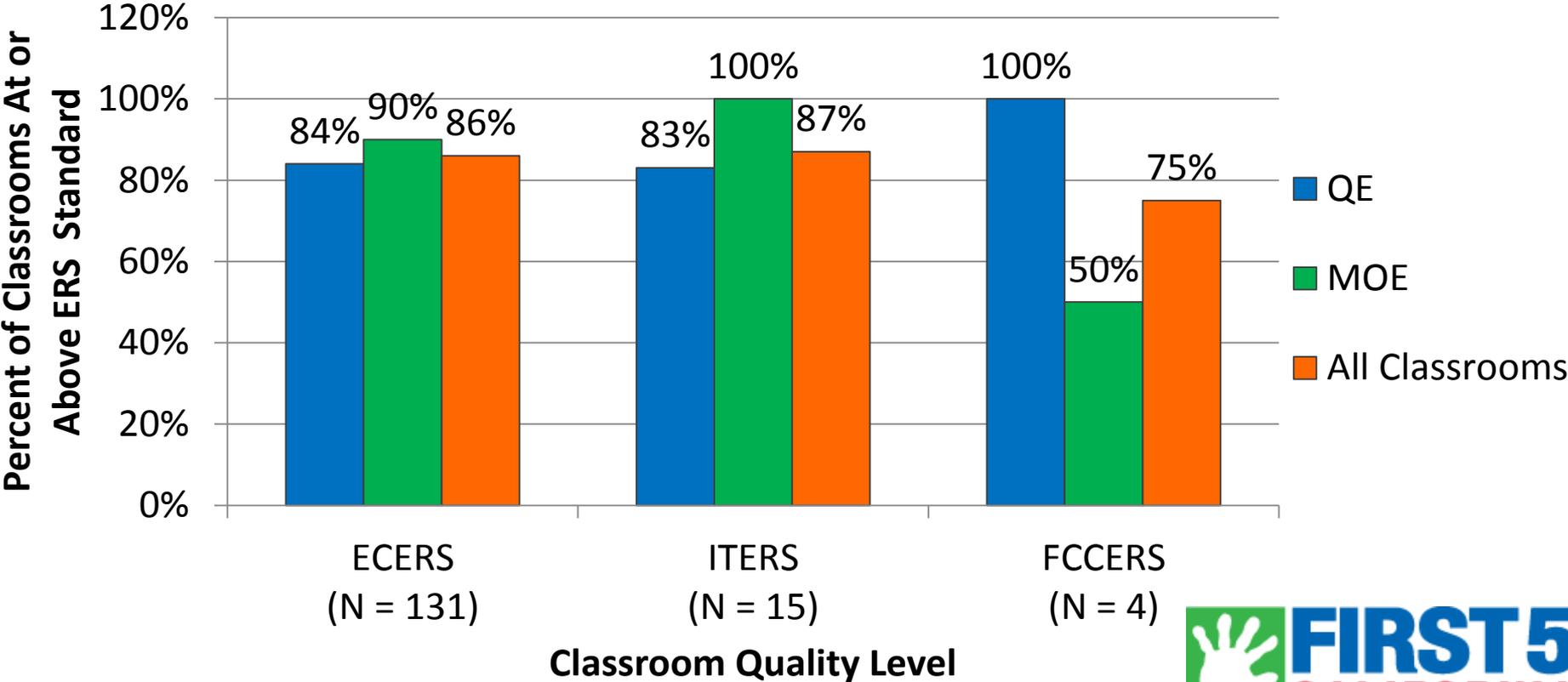
| | CLASS Pre-K Domain | R^{2a} | p-Value |
|--|---------------------------|-----------------------|-------------------|
| QE (N = 86) | Emotional Support | 0.001 | 0.750 |
| | Classroom Organization | 0.061 | 0.821 |
| | Instructional support | 0.123 | <0.001* |
| MOE (N = 99) | Emotional Support | 0.100 | 0.321 |
| | Classroom Organization | <0.001 | 0.778 |
| | Instructional support | 0.122 | <0.001* |
| All Evaluation Classrooms (N = 185) | Emotional Support | <0.001 | 0.879 |
| | Classroom Organization | <0.001 | 0.801 |
| | Instructional support | 0.108 | <0.001* |

Note: Results for evaluation classrooms reporting CLASS and ECE/CD Units.

a. R² expresses the proportion of variance explained in the bivariate regression.

Classroom Quality: ECERS

- The majority of classrooms met ERS global score standards for ECERS, ITERS, and FCCERS
- A higher percent of MOE classrooms met ECERS and ITERS global score standards



Child Development: DRDP

- DRDP assessments are used in all CSP 1 and 3 classrooms, but data are collected only for evaluation classrooms.
- As assessed by teachers, children experienced healthy development in CSP across all developmental domains of DRDP in both QE and MOE classrooms.
- In QE classrooms, teachers report more ratings in the highest two developmental levels of DRDP at the end of the year as compared to MOE classrooms.

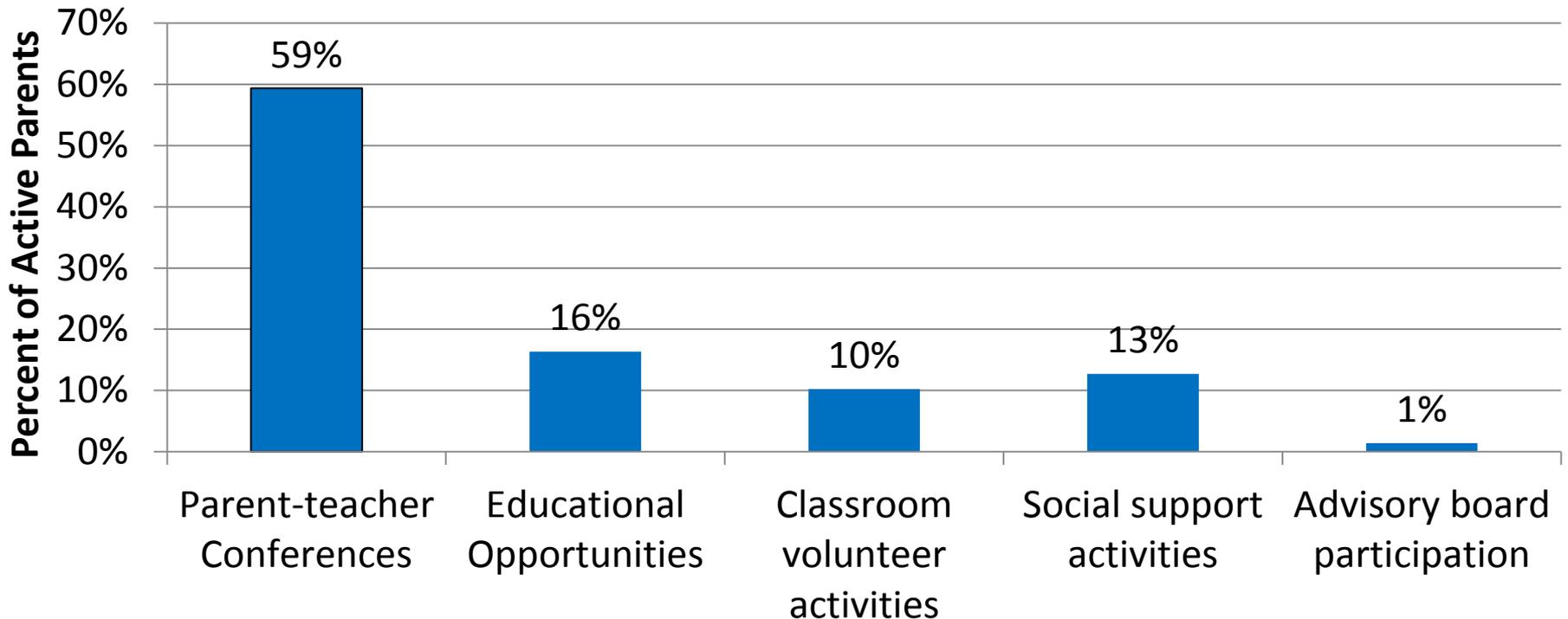
Child Development: DRDP

| Desired Results (DR) Domain | Quality Level | Percent child ratings at top two developmental levels | | Percent Difference (QE – MOE) | | N Ratings | |
|-----------------------------------|---------------|---|--------|-------------------------------|---------|-----------|--------|
| | | Fall | Spring | Fall | Spring | Fall | Spring |
| Self and Social Development | QE | 29% | 79% | -1% *** | 1% | 24,313 | 17,127 |
| | MOE | 30% | 78% | | | 24,073 | 21,827 |
| Language and Literacy Development | QE | 24% | 72% | -1% | -1% * | 20,052 | 14,231 |
| | MOE | 25% | 73% | | | 20,007 | 18,118 |
| English Language Development | QE | 34% | 71% | 6%*** | 10% *** | 6,532 | 4,371 |
| | MOE | 28% | 61% | | | 5,855 | 5,334 |
| Cognitive Development | QE | 29% | 79% | <-1% | 3% *** | 10,010 | 7,125 |
| | MOE | 29% | 76% | | | 10,043 | 9,085 |
| Mathematical Development | QE | 25% | 73% | 1% | 2% *** | 12,176 | 8,499 |
| | MOE | 25% | 71% | | | 11,957 | 10,886 |
| Physical Development | QE | 53% | 92% | 1% | 5% *** | 6,123 | 4,242 |
| | MOE | 52% | 86% | | | 6,013 | 5,440 |
| Health | QE | 35% | 85% | -2% *** | 3% *** | 6,063 | 4,224 |
| | MOE | 37% | 82% | | | 5,907 | 5,462 |

Note: Results for evaluation classrooms only. Percentages are expressed with rounding. Difference of proportions test significance levels: *p<.05, **p<.01, ***p<.001

Parent Involvement: Participation

- Fifty-nine percent of active parents attended parent-teacher conferences.
- Participation rates per classroom for educational opportunities, classroom volunteer activities, and social support activities all increased during the 2013–14 school year.
- There was a 49 percent increase in overall parent participation from the prior year.



Participation Opportunities

Note: N = 21,303 participating parents



Challenges and Limitations

- Quality Essential Staff: Need better measures for work of ECE support staff in support of program processes.
- Parent involvement: Difficult to measure meaningfully with DR Survey instrument.
- Infants and toddlers account for just four percent of CSP 1 and 3 children served, disproportionately low if compared to the general child population.

Successes

- CSP served almost 25,000 at-risk children during the 2013–14 school year.
- Well over half (57%) of children served were DLLs, and CSP served 1,000 more DLLs in 2013–14.
- Classroom environments are high quality as measured by ERS.
- Teaching staff interactions with children are high quality as measured by CLASS[®].
- CSP teachers are well-qualified in terms of education and ECE or CD degrees.
- Teaching staff education in ECE or CD matters. A higher number of ECE or CD course units in classrooms is associated with higher CLASS scores for instructional support.
- As assessed by teachers, children experience healthy development in CSP classrooms, regardless of classroom quality level.

Acknowledgments: CSP 1 and 3 Counties

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- Claire Crandall, SDCOE
- Lucia Garay, SCDOE
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Yolo

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Acknowledgments: First 5 California

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Program Management Division

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Information Technology Office

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- Riley Henderson, Staff Information System Analyst
- Randall Ortiz, Senior Programmer Analyst

Appendix

Classroom Quality Assessment Instruments

- **Classroom Assessment Scoring System® (CLASS®)**
 - Pre-K CLASS instrument
 - Domains for quality of interaction: Emotional Support, Classroom Organization, and Instructional Support
 - Focus is classroom interaction (social environment)
 - CSP program standards, all classrooms: 5 for Emotional Support, 3 for Classroom Organization, and 2.75 for Instructional Support
- **Environment Rating Scales (ERS)**
 - Early Childhood Environment Rating Scale (ECERS)
 - Infant/Toddler Environment Rating Scale (ITERS)
 - Family Child Care Environment Rating Scale (FCCERS)
 - Focus is on the classroom environment (physical environment)
 - All participating classrooms are to maintain global ERS scores of 5 or better (i.e., a “good” level of quality)

DRDP Assessment

- Desired Results Developmental Profile (DRDP) Assessment Tools
 - DRDP 2010
 - DRDP Infant/Toddler (IT)
 - DRDP *access*, DRDP School Age, DRDP School Readiness
- DRDP developmental domains include:
 - Self and social development
 - Language and literacy development
 - English language development
 - Cognitive development
 - Mathematical development
 - Health
- DRDP developmental levels include:
 - Exploring
 - Developing
 - Building
 - Integrating
- For each developmental domain, teachers observe individual children and rate development according to four developmental levels.
- Teachers provide evidence (i.e., student work, narrative, etc.) to support their assessment of the child's development.