



Kindergarten Readiness

2017



FINDINGS FROM THE FALL ASSESSMENT IN

Alameda County

In partnership with:



Prepared by:



Acknowledgements

Applied Survey Research (ASR) would like to acknowledge the following individuals for their support and assistance in the planning and implementation of the 2017 kindergarten readiness assessment in Alameda County:

From Alameda County Office of Education

L. Karen Monroe, Superintendent, Alameda County Schools

From Berkeley Unified School District

Debbi D'Angelo, Director of Evaluation and Assessment

Kathryn Mapps, District Teacher on Special Assignment

Josh Reed, District Teacher on Special Assignment

From Hayward Unified School District

Hector Garcia, Academic Director

Gloria Prada, Director, Assessment, Research, and Evaluation Department

From Oakland Promise

Tim Marlowe, Project Director for Data and Evaluation

Mary Padden, Kindergarten to College Project Director

David Silver, Director of Education, City of Oakland, Mayor's Office

From Oakland Unified School District

Christie Anderson, Director of Early Childhood Education

Rinat Fried, Data Analyst

Ray Mondragon, Former Deputy Chief of Early Learning

Curtiss Sarikey, Chief of Staff

Lee Thomas, School Community Manager, Futures

From San Lorenzo Unified School District

Fleurdeliz McJilton, School Readiness Coordinator

ASR would like to especially thank First 5 staff members who helped with designing, implementing, and offering valuable feedback on the 2017 Alameda County kindergarten readiness assessment project, including Chris Hwang, Jane Bernzweig, Janis Burger, Carla Keener, Barrie McClure, Malia Ramler, Kristin Spanos, Page Tomblin, and Jane Wellenkamp.

We are also grateful to the many parents/caregivers who shared with us aspects of their family's experiences in preparing for kindergarten and provided insight into access to community supports and gaps in services available to families.

Of course, this assessment would not be possible without the support of the participating kindergarten teachers who generously gave their time and energy to help us better understand the skills of the children entering their classrooms. These teachers dedicated a great deal of time to training sessions, student observations, and project management. ASR gratefully acknowledges the assistance of the many individuals listed in the following table.

Participating Alameda County Districts, Schools, and Teachers

Alameda Unified	Teachers
Amelia Earhart Elementary	Gwen Brown
	Katy Kelly
	Mariena Kuoch
Henry Haight Elementary	Jo Corpuz
	Kimberley Hare
	Nicole Strom
	Theresa Morrison
William G. Paden Elementary	Christine Schnetz
Albany Unified	Teachers
Marin Elementary	Adele King
Berkeley Unified	Teachers
Washington Elementary	Ashleigh Talbott
	Denisia Wash
Castro Valley Unified	Teachers
Chabot Elementary	Bridgette Emanuele
Dublin Unified	Teachers
Dublin Elementary	Michelle Wigand
Frederiksen Elementary	Brenda Gundell
	Lisa Klein
John Green Elementary	Joanne Palia
Fremont Unified	Teachers
Forest Park Elementary	Aubrie Reeves
	Stephanie Chan
Harvey Green Elementary	Alicia Norling
James Leitch Elementary	Mandi Boni
	Shirley Gunawan
	Ya-Ling (Laura) Wu
John G. Mattos Elementary	Andrea Sanchez
	Melissa Means
	Monique Manjarrez
	Olivia Pickett
Joseph Azevada Elementary	Ceci Temores
Oliveira Elementary	Liloo Kaul

Patterson Elementary	Evelina Chao
	Morgan Foster
Hayward Unified	Teachers
Glassbrook Elementary	Kelly Rien
	Lesly Garcia
	Maria Aguilera
Harder Elementary	Ashley Frey
	Maria Estrada
Palma Ceia Elementary	Jeanne Vidal-Smith
	Marie (Toni) Echaves
Park Elementary	Anna Davie
	Kendra Capen
Russ Elementary	Gloria Sifuentes
	NakMin Houk
Schafer Park Elementary	Donna Nelson
	Monica Bocanegra
Southgate Elementary	Maria Williams
Strobridge Elementary	Cynthia Shay
Tyrrell Elementary	Aracely McKimney
	Desira Rugley
	Martha Jayme
	Torri Bryant
Livermore Valley Joint Unified	Teachers
Jackson Avenue Elementary	Bonnie Sanders
	Carol Voegele
	Donna Andersen
	Katie O'Toole
Joe Michell Elementary	Bobbi Byrnes
	Valerie Talley
Junction Avenue Elementary	Diana Gard
Newark Unified	Teachers
Kennedy Elementary	Elen Martinez
	Elizabeth Chavez
Oakland Unified	Teachers
Bridges Elementary	Beatriz Tello
	Dorota Hrynyszak
	Kevin Arrizon
Carl B. Munck Elementary	Tina Byrd-Linarex
Community United Elementary	Desiree Levrier
	Karla Santillan
	Sara Shepich
East Oakland Leadership Academy	Tammy Enjaian
East Oakland Pride Elementary	Jennifer Carpenter

EnCompass Academy	Steven Valadez
Esperanza Elementary	Dolores Beleche
Fruitvale Elementary	Valerie Otsuka
Garfield Elementary	Huong (Jasmine) Quach
Laurel Elementary	Grace Tse
Lodestar	Courtney Dern
	Lupe Blanco
	Polly Huang
Manzanita Community	Luz Chavez
Montclair Elementary	Natalie Tran
North Oakland Community Charter	Lorin King
Thornhill Elementary	Brittany Watson
Pleasanton Unified	Teachers
Donlon Elementary	Kate Townsend
	Lanni Jones
Hearst Elementary	Kelly Maher
San Leandro Unified	Teachers
Madison Elementary	Kelly Maher
Monroe Elementary	Diane Marasigan
San Lorenzo Unified	Teachers
Colonial Acres Elementary	Yolanda Arredondo
Corvallis Elementary	Kirsten Hynds
	Margie Penaranda
Grant Elementary	Angela Cattin
	Julie Henderson

Table of Contents

Acknowledgements	i
Table of Figures	vii
Snapshot of the 2017 Kindergarten Readiness Assessment	10
Background	10
Key Findings	11
How ready for kindergarten were children assessed in Alameda County?	11
What family factors and child characteristics are associated with higher levels of kindergarten readiness?	11
What types of experiences and family backgrounds were characteristic of the incoming kindergarten students?	12
What will it take to “turn the curve” on kindergarten readiness in Alameda County?	13
Introduction.....	14
What is Kindergarten Readiness?	14
Why Does Kindergarten Readiness Matter?	14
Assessing Kindergarten Readiness in Alameda County	15
Methodology	17
Who Completed the Study?	17
Data Collection Instruments and Administration	20
Implementation	22
Data Preparation	23
A Note about How to Interpret the Data in This Report	24
Section Summary	24
Kindergarten Readiness in Alameda County.....	25
Readiness Levels according to the <i>Kindergarten Observation Form</i>	25
How Many Students Were Ready for Kindergarten?	28
Section Summary	30
Student and Family Factors Associated with Kindergarten Readiness.....	32
Predictors of Overall Readiness	32
Predicted Readiness Gains Associated with Each Predictor	34
Effect of Father’s Use of Community Resources	36
Comparison to 2015 Predictors	37
Cumulative Effect of Malleable Predictors on Children’s Readiness.....	38
Section Summary	39
Kindergarten Students and Families in the 2017 Readiness Study	41

Child and Family Demographics	41
Children’s Health, Development, and Well-Being	44
Family and Neighborhood Stressors.....	50
Family Activities and Routines.....	54
Resources, Programs, and Services to Support Families.....	57
Families’ Preparation for Kindergarten	59
Early Childhood Education Experiences	61
Special Section: Preschool Quality (QRIS)	69
Section Summary.....	77
Special Section: Oakland’s Castlemont Neighborhood.....	79
Kindergarten Readiness.....	79
Child and Family Demographics	79
Health and Well-Being and Attendance	81
Early Childhood Education Experiences	81
Resource and Service Use.....	83
Parenting and Family Stress	84
Section Summary.....	85
Conclusions and Discussion	86
Key Findings	86
How Do We “Turn the Curve”?.....	87
About the Researcher	89
Appendix: KOF and PIF.....	90
Appendix: Kindergarten Readiness Regression Results.....	97
References.....	98

Table of Figures

Figure 1.	<i>The Building Blocks of Readiness and Motor Skills</i> Items.....	10
Figure 2.	Percent Ready Across <i>Building Blocks</i>	11
Figure 3.	Key Predictors of Overall Kindergarten Readiness.....	12
Figure 4.	Map of Participating Schools by District, 2017 Kindergarten Readiness Assessment ...	16
Figure 5.	An Overview of Participation in 2008-2017, by District.....	18
Figure 6.	Schools and Classrooms by District, 2017	18
Figure 7.	2017 Smarter Balanced English Language Arts Third Grade Proficiency Rates, Study Sample Schools and Schools County-wide	19
Figure 8.	Teacher Characteristics	19
Figure 9.	Overview of Data Collection Instruments	20
Figure 10.	How Many Completed the Study?	21
Figure 11.	<i>Basic Building Blocks of Readiness and Motor Skills</i> Items	26
Figure 12.	Students' Proficiency Levels across 20 Kindergarten Readiness Skills.....	27
Figure 13.	Percent Ready Across <i>Building Blocks</i>	28
Figure 14.	Percent Ready by <i>Building Block</i>	29
Figure 15.	Comparison of Percent Ready between 2015 and 2017.....	29
Figure 16.	Average Overall Readiness, by Census Tract.....	30
Figure 17.	Key Predictors of Overall Kindergarten Readiness.....	33
Figure 18.	Adjusted Percent Ready, by Predictors: Early Childhood Education, Health/Well-Being, Special Needs, Family Income, Maternal Education	35
Figure 19.	Readiness, by Predictors: Age, English Learner, Gender, Community Resources, Parenting Stress, and Reading with Child	36
Figure 20.	Percent <i>Fully Ready</i> , by Level of Father Engagement with Community Resources.....	37
Figure 21.	Predictors of Readiness 2015-2017.....	37
Figure 22.	Percent of Boys of Color <i>Fully Ready</i> , by Number of Predictors.....	38
Figure 23.	Cumulative Effect of Malleable Predictors for Children in Low SES Families, Percent Ready by Number of Predictors	39
Figure 24.	Students' Gender, Age, and English Learner Status.....	41
Figure 25.	Percent of Kindergarten Students of Each Race/Ethnicity.....	42
Figure 26.	Maternal Educational Attainment, Family Income, and Single Parenthood	43

Figure 27.	Special Needs Status, Overall.....	44
Figure 28.	Children’s Access to Health Care.....	45
Figure 29.	Children’s Oral Health	46
Figure 30.	Children’s Health Screenings.....	46
Figure 31.	Health and Well-Being	47
Figure 32.	Percent with Well-Being Concerns, by Child/Family Characteristics	48
Figure 33.	Parenting Stress	50
Figure 34.	Parent Reports of Family and Domestic Concerns.....	51
Figure 35.	Parenting Beliefs and Neighborhood Safety	52
Figure 36.	Family Mobility and Homelessness	52
Figure 37.	Frequency of Family Activities per Week.....	54
Figure 38.	Family Activities	55
Figure 39.	Weeknight Bedtimes	55
Figure 40.	Percent Exposed to Over One Hour per Day of Screen Time.....	56
Figure 41.	Use of Community Resources	57
Figure 42.	Use of Parenting Programs, Services, and Supports	58
Figure 43.	Engagement in Child’s Child Care/Preschool Setting.....	59
Figure 44.	Receipt of Kindergarten Readiness Information	59
Figure 45.	Kindergarten Readiness Activities.....	60
Figure 46.	Children’s Preschool/Child Care Experience	61
Figure 47.	Children’s Formal ECE Experience 2013-2017	62
Figure 48.	Percent Attending TK, Preschool, or Licensed Family Care, by Race/Ethnicity	63
Figure 49.	Percent Attending TK, Preschool, or Licensed Family Care, by English Learner, Single Parenthood, and Maternal Education.....	63
Figure 50.	Child Care Arrangements By Income	64
Figure 51.	Preschool/Child Care Experiences, By Number of Settings and Hours Per Week	64
Figure 52.	Preschool/Child Care Experiences, By Reasons Not in Care	65
Figure 53.	Percent <i>Fully Ready</i> , by TK and Child/Family Factors	66
Figure 54.	Percent <i>Fully Ready</i> , by Pattern of ECE Experiences.....	66
Figure 55.	Percent <i>Fully Ready</i> , by Hours per Week in Care.....	67
Figure 56.	Number of Children and Sites in Study Sample, by Overall QRIS Rating	69
Figure 57.	Number of Children in QRIS Sites, by Elementary School.....	70

Figure 58. English Learner and Special Needs Status, by Child Care Arrangement 71

Figure 59. Race/Ethnicity, by Child Care Arrangement..... 72

Figure 60. Family Income, by Child Care Arrangement..... 72

Figure 61. Maternal Education, by Child Care Arrangement 73

Figure 62. Child Health & Well-Being & Attendance, by Child Care Arrangement 73

Figure 63. Kindergarten Preparation and Child Care Engagement, by Child Care Arrangement ... 74

Figure 64. Community and Parenting Resource Use, by Child Care Arrangement..... 75

Figure 65. Kindergarten Readiness Scores, by Child Care Arrangement 76

Figure 66. Kindergarten Readiness Scores, by QRIS Tier Rating 76

Figure 67. Overall Kindergarten Readiness Scores, by ECERS Subscale Score 77

Figure 68. Kindergarten Readiness of Children in Castlemont 79

Figure 69. Demographic Characteristics of Children in Castlemont 80

Figure 70. Demographic Characteristics of Families in Castlemont..... 80

Figure 71. Health and Well-Being and Attendance of Children in Castlemont..... 81

Figure 72. Early Childhood Education Experiences of Children in Castlemont..... 82

Figure 73. Child Care Preferences Reported by Families in Castlemont..... 82

Figure 74. Community Resources Used by Families in Castlemont 83

Figure 75. Parenting Resources Used by Families in Castlemont 84

Figure 76. Parenting Stress Reported by Families in Castlemont 84

Figure 77. Safety, Housing, and Basic Needs in Castlemont 85

Figure 78. Predictors of Overall Kindergarten Readiness 97

Snapshot of the 2017 Kindergarten Readiness Assessment

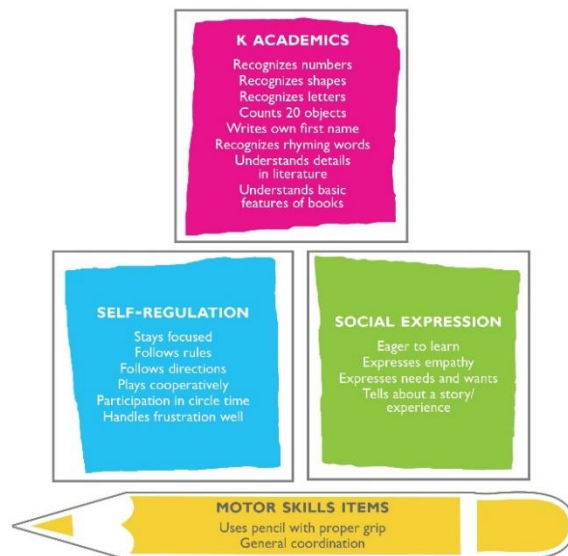
Background

This report describes the state of kindergarten readiness and related findings for kindergarten students across Alameda County who started school in Fall 2017. This is the third such assessment, following 2013 and 2015 studies of similar size and scope. The study was funded by First 5 Alameda County.

The report is based on data collected about children and families at 51 schools, spanning 13 school districts. The sample in the current year reached a sufficient size and scope to be representative of the full county. The sample also included large subsamples of students from Hayward and Fremont Unified School Districts, which allowed us to draw inferences regarding the characteristics and readiness levels of children in these districts.

Teachers participating in the study rated their students' proficiency levels on 20 kindergarten readiness skills on a scale from 1 (*Not Yet* demonstrating the skill) to 4 (*Fully Proficient* on the skill). These readiness skills sorted into three *Building Blocks* – *Self-Regulation*, *Social Expression*, and *Kindergarten Academics*. A fourth area includes two items related to fine and gross motor skills, which serve as a foundation for these *Building Blocks*. The graphic below illustrates the theoretical progression of readiness skills, with foundational motor skills preceding the more advanced self-regulation and socio-emotional skills. The top of the graphic contains early academic skills, like counting and number, shape, and letter recognition.

Figure 1. **The Building Blocks of Readiness and Motor Skills Items**



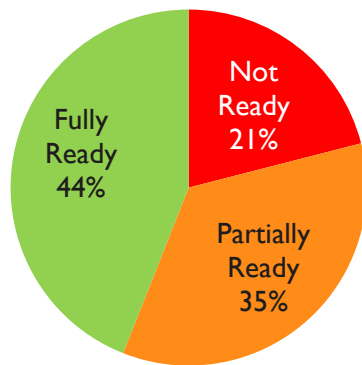
In addition to the teacher ratings on student proficiency, the study involved a survey of parents/caregivers about their child's demographics, family background, and child care experiences.

Key Findings

How ready for kindergarten were children assessed in Alameda County?

Students were considered *Fully Ready* for kindergarten in all areas if they scored at or above 3.25 out of 4 on the three *Building Blocks* – that is, if they were *Proficient* or nearing proficiency in *Self-Regulation*, *Social Expression*, and *Kindergarten Academics*. Students were considered *Partially Ready* if they were *Proficient* or nearly proficient in one or two *Building Blocks*, and considered *Not Ready* if they were still progressing in all three areas. Using these criteria, **44%** of the sample was *Fully Ready* for kindergarten.

Figure 2. **Percent Ready Across Building Blocks**

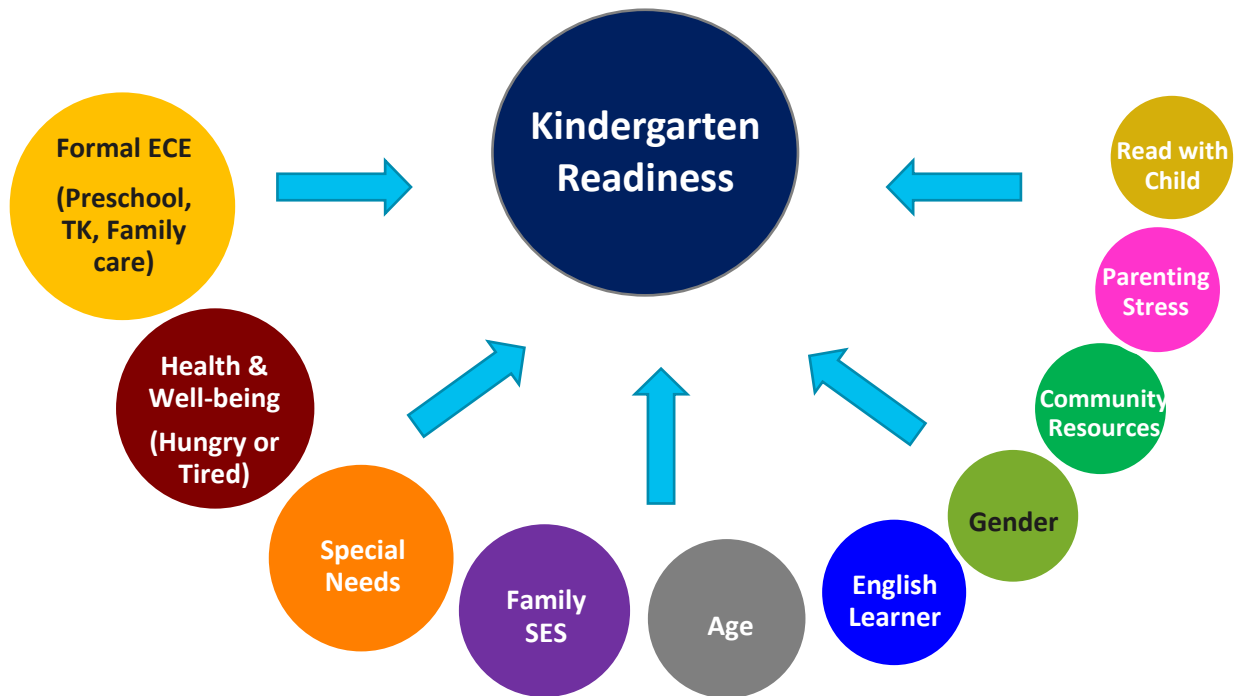


Source: Kindergarten Observation Form (2017)
Note: N=1,367-1,444.

What family factors and child characteristics are associated with higher levels of kindergarten readiness?




The factors that were strongly and independently associated with readiness are illustrated in the following graphic. Although many of these predictors are related to one another, each factor in the diagram contributes to readiness even after taking into account the contributions of other factors. For example, the effect of early care and education (ECE) on readiness is significant, regardless of the child's age, race/ethnicity, or gender. Likewise, the impact of child well-being on readiness is significant for children in both high and low socioeconomic status (SES) families. The size of the circle corresponds to the strength of the relationship between the factor and readiness, after holding constant all other child and family characteristics. The strongest predictors of higher readiness were participation in formal ECE, such as Transitional Kindergarten (TK) or licensed preschool or family care, followed by coming to school well-rested and well-fed. Children who did not have special needs, were not from low SES families, were older, were not English Learners, and were female also had higher readiness levels. In addition, children whose families reported higher use of community resources, lower levels of parenting stress, and more frequent reading with their children also had higher levels of kindergarten readiness.

Figure 3. Key Predictors of Overall Kindergarten Readiness



What types of experiences and family backgrounds were characteristic of the incoming kindergarten students?

- 85%** of children attended licensed preschool or family child care or TK in the prior year; these experiences predicted higher readiness.
- 19%** of children came to school hungry or tired on at least some days, and these children experienced lower levels of readiness than their healthy peers.
- 9%** of students had a diagnosed special need. Having a special need was associated with lower readiness.
- 27%** of children came from families with incomes under \$35,000 per year and 30% of mothers had no more than a high school education. Lower family SES was related to lower readiness.
- 5.5** years old: children's average age when they entered school. Older children also had higher readiness levels.
- 38%** of students were English Learners. English Learners had lower readiness than those who were proficient in English.
- 53%** of children were male, and boys had lower readiness than girls.

- 
 37% of parents/caregivers used at least 5 community resources with their children in the past year, including libraries, museums, and parks; higher use of community resources predicted higher readiness, particularly when both fathers and mothers used these resources.
- 
 23% of parents/caregivers experienced high levels of parenting stress in the prior month (e.g., they felt their child was harder to care for than other children or had difficulty managing the child's behavior); higher levels of parenting stress predicted lower levels of readiness.
- 
 27% of parents/caregivers reported reading with their children daily; more frequent reading with children also predicted higher readiness.

What will it take to “turn the curve” on kindergarten readiness in Alameda County?

The findings can inform approaches partners in the community can take to help address gaps in readiness in the county, including – but not limited to – the following:

- Licensed early childhood education experiences for all children;
- Interventions that promote child health and well-being, such as expanded food subsidies, free meal programs, and quality medical care;
- Support for families' basic needs, such as income and housing support, so that children from low SES families achieve optimal development;
- Early identification and intervention for children at risk for special needs, such as universal developmental screening and referral systems, like Help Me Grow; and
- Family education and support programs to reduce parenting stress and encourage engagement in community resources and enriching activities.

These approaches are aligned with current First 5 Alameda County investment strategies, but improving the readiness of children county-wide will require the contribution of partners throughout the community.

Introduction

What is Kindergarten Readiness?

According to many scholars and educators, *kindergarten readiness* (also commonly referred to as *school readiness*) is multifaceted and means that children are ready for kindergarten, families and communities are ready to support children’s growth and development, and schools are ready to accept children into their classrooms. In one of the early large-scale efforts to establish a common framework for understanding and addressing kindergarten readiness, the National Education Goals Panel (NEGP, 1995) organized children’s readiness for school into five domains: *Physical Well-Being & Motor Development*, *Social & Emotional Development*, *Approaches Toward Learning*, *Communication & Language Usage*, and *Cognition & General Knowledge*. This framework marked a shift in conceptions of kindergarten readiness away from a focus on academic skills alone and towards a holistic view of children’s preparation for school. More recent research conducted by Applied Survey Research (ASR) found that readiness skills measured by the *Kindergarten Observation Form (KOF)* reliably sort into three primary domains, termed the *Basic Building Blocks of Readiness (Building Blocks)*. These *Building Blocks* overlap with, but are distinct from the *NEGP* dimensions: *Self-Regulation*, *Social Expression*, and *Kindergarten Academics*. Additionally, motor skills are included on the *KOF* as a foundational element of readiness.

NATIONAL EDUCATION GOALS PANEL Readiness Dimensions:

- Physical Well-Being & Motor Development
- Social & Emotional Development
- Approaches Toward Learning
- Communication & Language Usage
- Cognition & General Knowledge

APPLIED SURVEY RESEARCH Building Blocks of Readiness:

- Self-Regulation
- Social Expression
- Kindergarten Academics

The NEGP framework also expanded the definition of kindergarten readiness beyond the child to include the preparation of families and communities to support children’s kindergarten readiness. As stated in a widely cited study of readiness:

Children are not innately “ready” or “not ready” for school. Their skills and development are strongly influenced by their families and through their interactions with other people and environments before coming to school (Maxwell & Clifford, 2004).

These interactions and experiences can have an impact on various domains or dimensions of kindergarten readiness.

Why Does Kindergarten Readiness Matter?

A large body of research connects kindergarten readiness to an array of long-term outcomes. Research shows that cognitive and social-emotional readiness skills predict children’s ability to smoothly transition into and through elementary school (Pianta, Cox, & Snow, 2007). Children who demonstrate proficiency across multiple readiness dimensions are more likely to succeed academically in first grade than are those who are competent in only one or two dimensions (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006), and children’s patterns of readiness just prior to

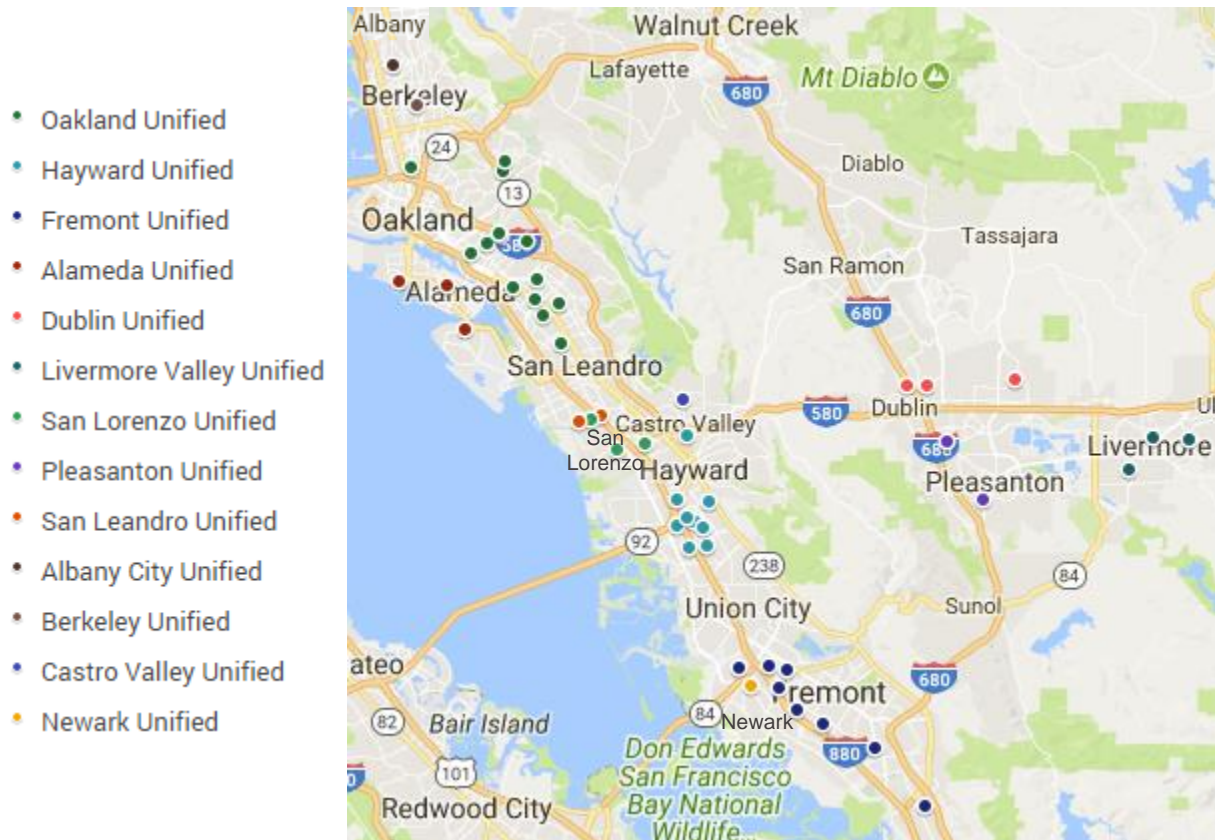
kindergarten, particularly possessing social competence or advanced memory skills, predict fifth grade achievement (Sabol & Pianta, 2012).

Longitudinal studies have demonstrated that kindergarten readiness has an impact beyond elementary school as well. For example, kindergarten readiness skills have been shown to predict academic achievement in early adolescence (Duncan et al., 2007). Furthermore, children who demonstrate poor achievement early in their school careers are more likely to be held back in a grade, which puts them at greater risk for school dropout, even if the retention occurs during elementary school (Alexander, Entwisle, & Kabani, 2001; Roderick, 1994). Additionally, kindergartners with prosocial skills at school entry are significantly more likely to have positive outcomes as a young adult on a range of indicators (Jones, Greenberg, & Crowley, 2015). Jones and colleagues (2015) gathered teachers' assessments of children's social interactions at kindergarten and then measured educational attainment, employment status, receipt of public assistance, criminal activity, substance use, and mental health outcomes when the study participants were teenagers and young adults. Higher social competence skills in kindergarten significantly predicted positive outcomes across all of these measured domains later in life. The research conducted to date clearly demonstrates that kindergarten readiness has wide-ranging implications for a child's long-term outcomes.

Assessing Kindergarten Readiness in Alameda County

ASR has conducted seven readiness assessments in Alameda County since 2008, the last three of which were aimed to reach children from across the entire county. The map below illustrates the locations of participating schools in the 2017 study.

Figure 4. **Map of Participating Schools by District, 2017 Kindergarten Readiness Assessment**



The key research questions examined in this year's study and addressed in this report are the following:

1. How ready for kindergarten were children assessed in Alameda County?
2. What family factors and child characteristics are associated with higher levels of kindergarten readiness?
3. What types of experiences and family backgrounds were characteristic of the incoming kindergarten students?
4. What will it take to "turn the curve" on kindergarten readiness in Alameda County? That is, what do the findings suggest is needed to improve readiness in the county and reduce disparities?

Methodology

This section first describes the sample, instruments, and procedures used for data collection in the Alameda County 2017 readiness assessment. It also includes information on how the data presented in this report were prepared and analyzed, and how they can be interpreted.

Who Completed the Study?

Participation by District

In all, 1,444 kindergarten students from 89 classrooms were included in the study. In addition, 35 students were enrolled in these classrooms as Transitional Kindergarten (TK) students. However, TK students are not included in the overall sample described in this report, as they are significantly younger and tend to have had different early education experiences compared to their peers in kindergarten.

The table below shows the percent of study participants representing each district in each study year, as well as a breakdown of kindergarten students enrolled in the county, by district. As in many previous assessments, the 2017 sample was overwhelmingly comprised of kindergarteners from Hayward, Oakland, and Fremont Unified School Districts. Compared to the overall population of kindergarten students in the county, children in Hayward, Alameda, and Livermore were *overrepresented* in the current study, while children in Oakland were *underrepresented*. Statistical techniques¹ were used to adjust the disproportionality of students in these districts, and to make the sample representative in terms of student demographics (race/ethnicity and English Learner status). Four of the school districts did not participate in 2017: Emery, New Haven, the Alameda County Office of Education (ACOE), and Piedmont (not shown below, as it has never participated in the assessment). However, the districts participating in the study enroll over 90% of the kindergarten population in Alameda County. The representation of most school districts in the county allowed the sample to reach a sufficient size and scope to be representative of the full county. The sample also included subsamples of students from Hayward and Fremont that were large and representative enough to allow us to draw inferences regarding the characteristics and readiness levels of children in these districts.

In addition to the studies depicted in the table below, readiness assessments were conducted in Hayward Unified in 2014 and 2016.

¹ Statistical weights based on the Alameda County kindergarten population were applied in analyses of readiness.

Figure 5. An Overview of Participation in 2008-2017, by District

District	Readiness Study Participants							Pct of K Students in County 2016-17
	2008 (n=577)	2009 (n=521)	2010 (n=1,394)	2011 (n=1,597)	2013 (n=1,696)	2015 (n=1,530)	2017 (n=1,444)	
San Lorenzo	81%	56%	19%	21%	17%	10%	4%	4%
Livermore	16%	18%	14%	13%	2%	3%	10%	6%
Oakland	3%	4%	14%	17%	21%	25%	17%	25%
Hayward	--	17%	21%	12%	20%	29%	22%	10%
Emery	--	5%	2%	--	1%	2%	--	<1%
Berkeley	--	--	18%	--	--	--	2%	4%
Pleasanton	--	--	7%	6%	2%	--	4%	5%
Castro Valley	--	--	5%	4%	4%	3%	2%	4%
Fremont	--	--	--	10%	20%	19%	17%	16%
New Haven	--	--	--	7%	1%	--	--	5%
San Leandro	--	--	--	11%	7%	--	2%	4%
Dublin	--	--	--	--	1%	--	4%	6%
Newark	--	--	--	--	1%	--	3%	3%
Alameda	--	--	--	--	1%	8%	11%	5%
ACOE	--	--	--	--	1%	--	--	2%
Albany	--	--	--	--	--	2%	1%	1%

Source: Kindergarten Observation Form (2008, 2009, 2010, 2011, 2013, 2015, 2017), California Department of Education (2017)

Note: Small districts not participating in readiness studies are not listed. Percentages in far-right column reflect proportion of kindergartners in each district. Percentages may not sum to 100 due to rounding.

Schools and Classrooms

Teachers from 51 schools across Alameda County participated in the assessment. The number of participating schools within each of the 13 participating districts ranged from 1 to 15, with the greatest number of participating schools coming from Oakland, Hayward, and Fremont Unified School Districts.

Figure 6. Schools and Classrooms by District, 2017

District	Number of schools in sample	Number of classrooms in sample	Number of students assessed
Alameda Unified	3	8	155
Albany Unified	1	1	17
Berkeley Unified	1	2	36
Castro Valley Unified	1	1	25
Dublin Elementary	3	4	59
Fremont Unified	7	14	250
Hayward Unified	9	19	311
Livermore Valley Unified	3	7	142
Newark Unified	1	2	39
Oakland Unified	15	21	248
Pleasanton Unified	2	3	63
San Leandro Unified	2	2	36
San Lorenzo Unified	3	5	63
Total	51	89	1444

Source: Kindergarten Observation Form (2017)

In addition, the schools participating in the study were representative of the county overall in terms of performance on California’s Smarter Balanced standardized reading assessments. As shown below, when we weight the participating schools by the number of students in the Kindergarten Readiness Assessment sample, the proficiency rate of participating schools on the third grade Smarter Balanced English Language Arts assessment in 2017 was similar to the rate in the county overall.

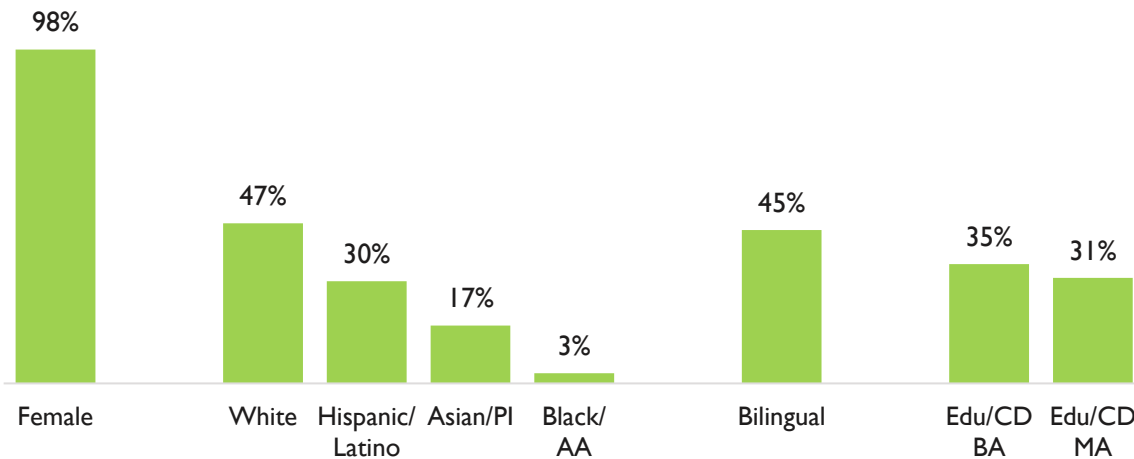
Figure 7. **2017 Smarter Balanced English Language Arts Third Grade Proficiency Rates, Study Sample Schools and Schools County-wide**

District	Percent Meeting or Exceeding Standards
Weighted Study Sample	47%
Alameda County	49%

Source: California Department of Education; Kindergarten Observation Form (2017)

The following chart summarizes the characteristics of teachers who participated in the 2017 assessment. Of note, 35% of teachers had a bachelor’s degree in child development or education, and 31% of participating teachers had a graduate degree in child development or education. Fifty-nine percent of teachers had only a bachelor’s degree (in any field) and 41% had a graduate degree (in any field). Nearly half of teachers were bilingual; 67% of those were bilingual in Spanish, 18% in Chinese, and 5% in Vietnamese. On average, teachers have been teaching for 15.5 years with 11 of those years spent teaching kindergarten. These teacher characteristics were entered into our analyses as control variables, but were not found to be significantly associated with kindergarten readiness ratings.

Figure 8. **Teacher Characteristics**



Source: Kindergarten Readiness Assessment Teacher Survey (2017)
 Note: N=86.

Data Collection Instruments and Administration

Two instruments were used to collect data for this assessment. Kindergarten teachers completed the *Kindergarten Observation Form (KOF)*, while parents/caregivers provided information about their child and family circumstances on the *Parent Information Form (PIF)*. The figure that follows provides a summary of each of the instruments, their content, and who completed each one.

Figure 9. **Overview of Data Collection Instruments**

Instrument	What Key Data Are Assessed?	Who Completes It?
<i>Kindergarten Observation Form (KOF)</i>	20 kindergarten readiness skills; basic well-being; demographics.	Participating kindergarten teachers
<i>Parent Information Form (PIF)</i>	Preschool experiences; kindergarten transition activities; activities and routines in the home; parental supports, attitudes, stressors; demographics.	Consenting parents/caregivers of children in the assessment

Kindergarten Observation Form (KOF)

The *Kindergarten Observation Form* was originally developed in 2001 using guidelines from the *National Education Goals Panel (NEGP)* framework of readiness. The *KOF* uses teacher observation as the method of assessment across 20 readiness skills. This is a valid and reliable method of assessment for the following reasons:

Kindergarten teachers assessed their students using a valid, reliable instrument: the Kindergarten Observation Form.

- Because student behavior can change from day to day, teachers are in a better position than outside observers to assess their students, as teachers can draw on the knowledge gained through four weeks of daily interactions.
- Teacher observation is less obtrusive and less intimidating for students than assessment by outside observers.
- Teachers are entrusted by the school system to be children’s “assessors” in other respects, such as grading, and, therefore, it is presumed that they are aware of the need for assessments to be carried out in a fair manner.

Although teacher observation is valid and reliable, there is some risk of natural variability between teacher observers. To minimize variability, the assessment tool includes measurable indicators (items), clear assessment instructions, a clearly defined response scale, a comprehensive scoring guide describing appropriate proficiency levels for each of the 20 readiness skills, and a thorough teacher training (see “Implementation” below for details on the trainings conducted).

Teachers are asked to observe and score each child according to his or her level of proficiency in each skill, using the following response options: *Not Yet* (1), *Beginning* (2), *In Progress* (3), and *Proficient* (4). An option of *Don't Know / Not Observed* is provided as well. If teachers feel they cannot provide an accurate assessment on items that require oral communication due to language barriers, they are instructed not to assess students on these items and instead mark *Don't Know / Not Observed* or leave those items blank.

Teachers are able to complete most of the items on the *KOF* through simple, passive observation of the children in their classrooms. A few items, however, require one-on-one, teacher-child interaction.

The *KOF* also includes fields to capture students' basic demographic information to understand who took part in the study and to examine what characteristics are associated with children's skill development (e.g., experience in curriculum-based early education settings, child age, child gender, child's presence of special needs).

Parent Information Form (PIF)

To better understand how family factors are related to children's levels of readiness, a *Parent Information Form* survey is completed by parents/caregivers. The *PIF* collects a wide variety of information, including: types of child care arrangements for children during the year before kindergarten entry; ways in which families and children prepared for the transition to kindergarten; engagement in family activities and daily routines; use of parenting supports and family resources; parenting social support, attitudes, and stressors; health and health care measures; and several demographic and socioeconomic measures. Care was taken to ensure that the questions could be read at a sixth grade reading level. Versions of the form are offered in English, Spanish, Arabic, Tagalog, Chinese, and Vietnamese. Parents/caregivers are given a children's book (in their preferred language) as an incentive to complete the *PIF*. To enhance their privacy, parents/caregivers are provided with an envelope in which they seal their completed survey prior to returning them to their child's teacher.

KOF and *PIF* Completion

Overall, the 1,444 student sample reflects a parental consent rate of 71%. Ninety-five percent of parents/caregivers who agreed to have their child take part in the study also completed and returned the *PIF*. Readiness data on all 1,444 students are included in this report, however, even if their parent/caregiver did not complete a *PIF*.

Figure 10. **How Many Completed the Study?**

Data	Alameda County Sample (13 districts)
Number of children in the classrooms of participating teachers*	2,025
Number of <i>KOFs</i> returned*	1,444
Parent consent rate	71%
Number of <i>PIFs</i> that were matched to a <i>KOF</i>	1,376
Parent <i>PIF</i> response rate (# <i>PIFs</i> received/# consents)	95%

*Excluding all known TK students (N=35).

Implementation

Obtaining Participation Agreement

ASR and First 5 Alameda County contacted district and school administrators in all Alameda County school districts. Eight of the 13 participating districts in 2017 had participated in the previous (Fall 2015) readiness assessment. School and district administrators were provided with information about the assessment, including its purpose, what participation would involve on the part of the kindergarten teachers, the timeline for completion of the study tasks, and how the data might benefit participating teachers, schools, and districts.

Teacher Trainings

ASR staff led a series of required teacher trainings at the First 5 office, selected school sites, and via phone/online. All teachers participated in a training prior to conducting the assessment. Teachers who had not previously participated in a kindergarten readiness assessment study were asked to attend an in-person training. Each training lasted approximately 75 minutes. Repeat teachers had the option to participate in a phone/online training refresher, which lasted 30-60 minutes. At these trainings, ASR staff reviewed the scoring rubric and detailed scoring guide, and allowed teachers to practice assigning ratings based on pictures and scenarios. These trainings and the specific skill descriptions provided in the scoring guide were designed to minimize the possibility of teacher bias. After the trainings, kindergarten teachers were given all project materials, including: (1) written instructions on how to complete the assessment; (2) consent letters for parents/caregivers that explained the study purpose and asked parents/caregivers to indicate whether or not their child would participate in the study; (3) *PIFs*; (4) *KOFs* and the accompanying *Scoring Guide*; (5) a sheet to track teachers' progress during the assessment; (6) return envelopes to facilitate the collection of parental consent forms and surveys; and (7) an envelope for the return of study materials to ASR. All of these materials were reviewed with teachers so that they were familiar with both the teacher-completed instruments and the parent/caregiver-completed instruments. Forms for parents/caregivers were printed in six languages.

Obtaining Parent Consent

At the beginning of the school year, teachers distributed and then monitored collection of the parent consent letters and *PIFs*. Consent from a parent/caregiver was required for a student to be able to participate in the study. As an incentive to encourage participation by families, First 5 provided a children's book to every child in each participating classroom.

Conducting Student Assessments

Teachers were asked to conduct their student assessments approximately three to five weeks after the start of the school year, drawing upon their knowledge and observations of children during the first few weeks of school. The average length of time that elapsed between the start of school and teachers' observations was 23 days after their classes had started. Teachers then returned all completed forms to ASR for processing. Each teacher was provided with an incentive of \$250 for their participation.

Upon completion of their assessments, teachers were asked to provide their feedback on the assessment process. Teachers generally found the assessment easy to administer and said that it

provided valuable information to inform their teaching. The following are direct quotes from teachers who participated in the 2017 assessment:

- *The strengths of the readiness assessment are that it gives a sense of skills the students come to kindergarten with and teachers can better group the students based on their reading level and informs teachers what areas the students need to work on.*
- *Everything was very organized and set up in such [a] way that [it] required little or no prep on the teacher part. The assessment questions were clear to the students.*
- *The strength lies in the results. It will guide my teaching.*

Data Preparation

Calculating and Adding Weights

Sampling weights were applied to make the sample distribution more proportional to the true population of kindergarten students across the county. The sample was weighted to be representative of the county-wide rate of English Learners in kindergarten and the racial/ethnic makeup of county kindergartners. These weights were applied to the sample in the analysis of readiness skills.

An Overview of Statistical Analyses Conducted

After data were cleaned, numerous statistical analyses were conducted to answer the research questions, including the following:

- Percentages were calculated and chi-square tests were run to test whether differences in percentages reached statistical significance. Chi-square tests determine whether the differences in percentages for two or more groups are likely real differences or are instead due to chance.
- Average scores were calculated for all continuous measures and scaled items. For example, an average score was generated for the readiness items, excluding blank responses or responses of *Don't Know / Not Observed*.
- Independent t-tests were used to test whether differences in average scores were statistically significant between two groups.
- Regression analysis was used to estimate the strength of relations between readiness items and various student and family characteristics. This regression method helps determine the independent contribution of each of the factors to readiness scores.

Statistical Notation

Throughout this report, ASR uses the following standard abbreviations:

- *N* is used when noting the sample size for a chart or an analysis.

- *P*-values (e.g., $p < .01$) are used to note whether certain analyses are statistically significant. *P*-values that are less than .05 are statistically significant. All significance tests were two-tailed tests (more conservative) rather than one-tailed tests (less conservative).

A Note about How to Interpret the Data in This Report

Teachers and parents/caregivers participated in the readiness study voluntarily. This means that the information presented in this report describes only the students and families assessed, who may differ in important ways from students and families who did not participate. Furthermore, as mentioned above, there were a few districts not represented at all in the sample. However, participation from a broad, representative, and diverse range of schools and districts in 2017 makes it possible to draw conclusions about the readiness levels of children county-wide.

It is important that readers observing trends over time keep in mind that the number of students and schools assessed each year has changed, the schools participating in each district have varied from year to year, and the assessment instrument (*Kindergarten Observation Form*) has been slightly modified over time to remove items that were redundant with other items and/or had low correlations with established readiness constructs. There is no evidence this streamlined *KOF* substantially affected readiness scores. However, given the variations in sample size and location, as well as changes to the assessment instrument, comparisons in overall county-level readiness scores across years should be made with caution.

Section Summary

In the months leading up to the start of the 2016-2017 school year, district and school administrators were approached by First 5 and invited to have schools in their districts take part in an assessment of the kindergarten readiness of their students entering kindergarten. Teachers from the participating schools attended a training session in the summer or very beginning of the school year. They then secured consent from the parents/caregivers of their students and distributed surveys that parents/caregivers completed and returned in sealed envelopes. Shortly after obtaining parental consent and within the first four weeks of school on average (when children were fairly comfortable in their new surroundings, but their skills had not yet grown significantly since kindergarten entry), teachers assessed the proficiency of participating students across 20 readiness skills and recorded their observations. Teachers returned all of their forms and received participation incentives from First 5, and families in their classrooms received a children's book.

Kindergarten Readiness in Alameda County

This section presents the following information on the readiness levels of students entering kindergarten in Fall 2017:

- An item-by-item summary of all 20 readiness skills measured by the *Kindergarten Observation Form*
- Percentage of students *Fully Ready*, *Partially Ready*, and *Not Ready* for kindergarten
- Percentage of students *Proficient* or nearly proficient on the three *Basic Building Blocks of Readiness*

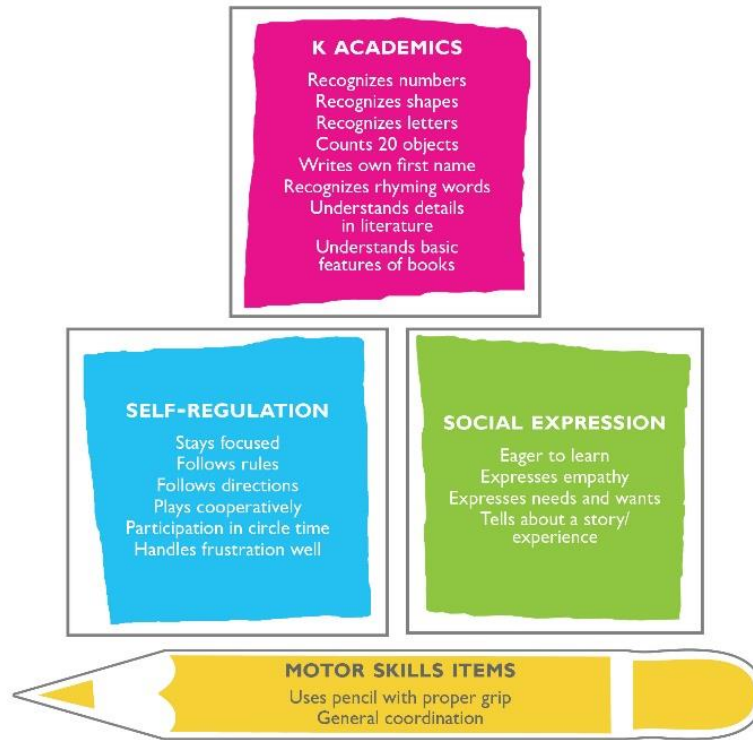
The data presented in this section were adjusted so that the assessment sample reflected the county population in terms of race/ethnicity and the proportion of English Learners among county kindergartners.

Readiness Levels according to the *Kindergarten Observation Form*

Previous analysis of readiness data has shown that the underlying dimensions of readiness on the *KOF* are best represented by three main skill groups that have been labeled the *Basic Building Blocks of Readiness*. ASR utilizes this categorization of readiness skills because it is informed by the data gathered from teachers and corresponds to the categorization of skills used by many kindergarten readiness experts and practitioners.

The 20 readiness skills sort into three domains that can be organized according to expected skill progression.

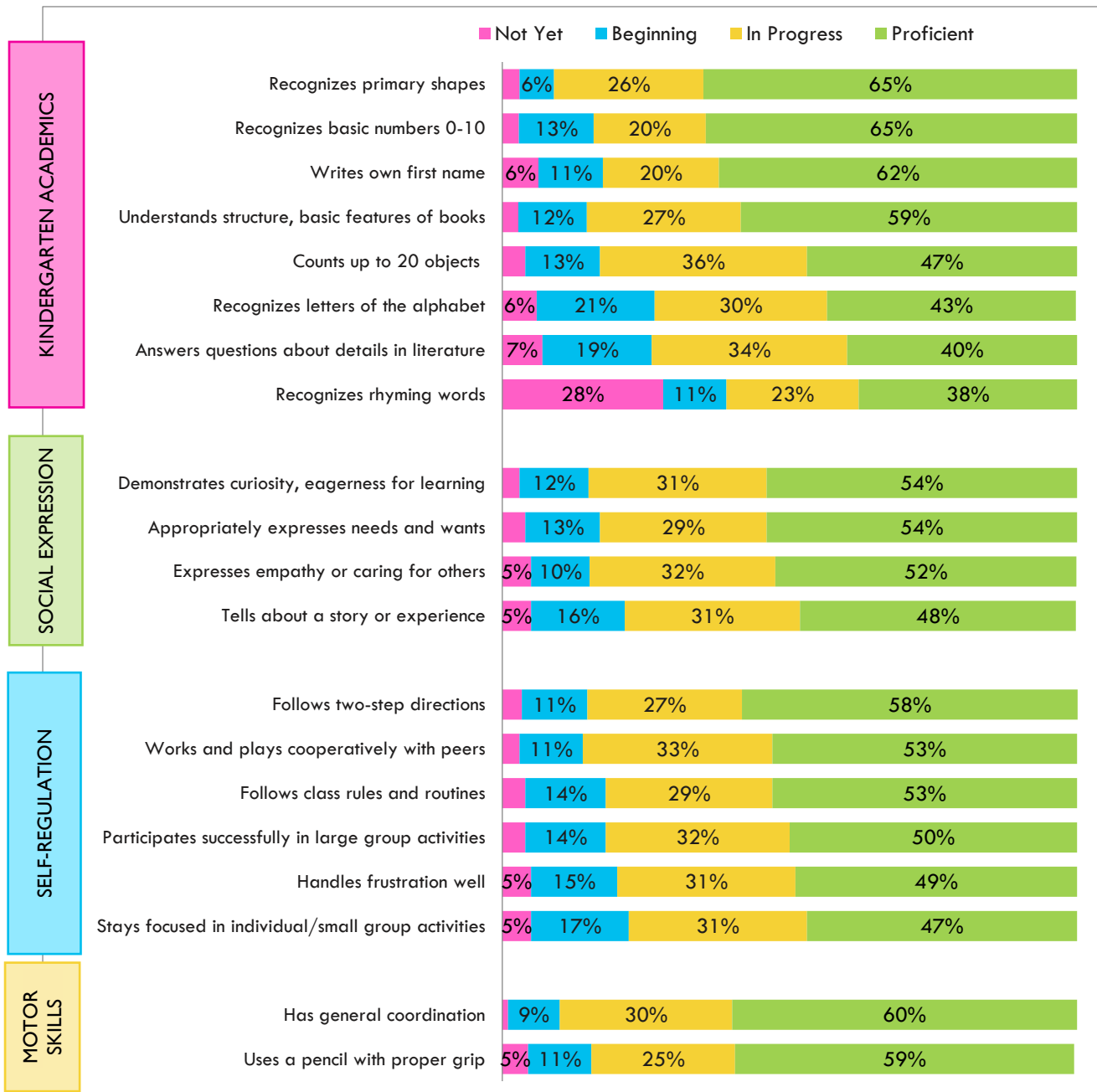
The sorting of the 20 readiness skills into the three primary *Basic Building Blocks* – *Self-Regulation*, *Social Expression*, and *Kindergarten Academics* – are depicted in the figure on the following page. A fourth area includes two items related to fine and gross motor skills, but internal research conducted by ASR found they are not correlated as strongly with long-term outcomes (i.e., third grade English and math achievement) as the other domains. Low scores on these two items are also highly correlated with the presence of special needs. They are considered important foundational skills for the primary readiness domains and included in the calculation of overall average readiness scores, but not measured as a separate *Building Block*. Although all of the skill dimensions are important, the pyramid representation in the figure reflects a skill progression framework. That is, basic motor skills are at the base because they are likely to precede the more advanced self-regulation and socio-emotional skills. The top of the pyramid contains the early academic skills that are a foundation for academic content covered in kindergarten and beyond.

Figure 11. **Basic Building Blocks of Readiness and Motor Skills Items**

Note: Internal research conducted by ASR in 2015 found the motor skills items are not strongly correlated with long-term academic outcomes; they are instead correlated with the presence of special needs. They are included in the overall average readiness score, but not measured as a separate *Building Block*.

The figure on the following page illustrates the distribution of scores for each of the 20 items on the *KOF*. Alameda County students entered kindergarten strongest on the following specific readiness skills: recognizing numbers and primary shapes (*Kindergarten Academics*), general coordination (*Motor Skills*), and writing their own name (*Kindergarten Academics*). The skills they were still developing included recognizing rhyming words and letters of the alphabet (*Kindergarten Academics*), and answering questions about a story (*Kindergarten Academics*).

Figure 12. **Students' Proficiency Levels across 20 Kindergarten Readiness Skills**



Source: Kindergarten Observation Form (2017). N=1,309-1,438. Note: Scores range from 1 (Not Yet) to 4 (Proficient). Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled. Scores were omitted for students for whom language barriers were a concern.

How Many Students Were Ready for Kindergarten?



Students' average scores overall and on each of the *Basic Building Blocks* dimensions were calculated (scores could range from 1.00=*Not Yet* to 4.00=*Proficient*). Students were considered *Fully Ready* for kindergarten in all areas if they scored at or above 3.25 out of 4 on the three *Building Blocks* – that is, if they were *Proficient* or nearing proficiency on *Self-Regulation*, *Social Expression*, and *Kindergarten Academics*. Students were considered *Partially Ready* if they were *Proficient* or nearly proficient on one or two *Building Blocks*, and considered *Not Ready* if they were still progressing in all three areas. Full

descriptions of each profile are below:

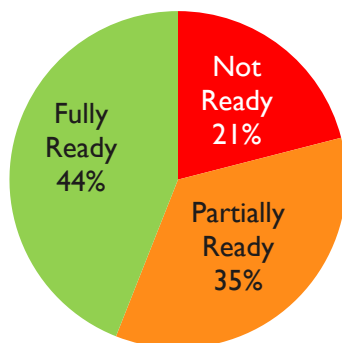
FULLY READY: Students who are socially and academically well-prepared for school. Their average scores within three *Building Blocks* – *Self-Regulation*, *Social Expression*, and *Kindergarten Academics* – were between 3.25 and 4.00 (on a scale of 1-4).

PARTIALLY READY: Students who had an average *Building Block* score of 3.25 or higher in one or two blocks, but not all three. Students in this group tend to have a variety of skill combinations. For example, a student may be proficient in academics and self-regulation, but lack social expression skills.

NOT READY: Students who are not well-prepared for school in any of the three areas. Their average scores within each of the *Self-Regulation*, *Social Expression*, and *Kindergarten Academics* domains were all below 3.25.

Using these criteria, **44%** of students were *Fully Ready* for kindergarten, while another 35% were *Partially Ready*, having scored at or above 3.25 on some but not all of the *Building Blocks*. The remaining 21% were *Not Ready*, having scored below 3.25 on all three *Building Blocks*.

Figure 13. **Percent Ready Across Building Blocks**

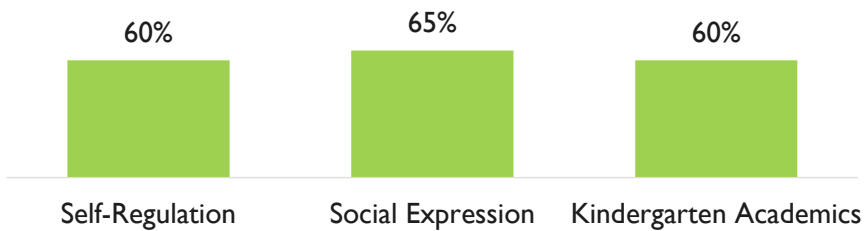


Source: Kindergarten Observation Form (2017)

Note: N=1,367-1,444.

When each *Building Block* is considered separately, we find that the highest percentage of children were *Proficient* or nearing proficiency on the *Social Expression* domain (65% scored at least 3.25 out of 4 on this domain). Sixty percent of the children were *Proficient* or nearly proficient on *Self-Regulation* and 60% also met this benchmark on *Kindergarten Academics*. Although these overall percentages are similar, the children who were *Proficient* or nearly proficient in one domain were not always the same children who met the 3.25-point benchmark in the other two domains. For example, of the 821 children who were *Proficient* or nearly proficient in *Kindergarten Academics*, just 679 (83%) scored at least 3.25 in *Social Expression* and 639 (78%) scored at least 3.25 in *Self-Regulation*. As described above, only 44% of the sample was *Fully Ready* in all three domains.

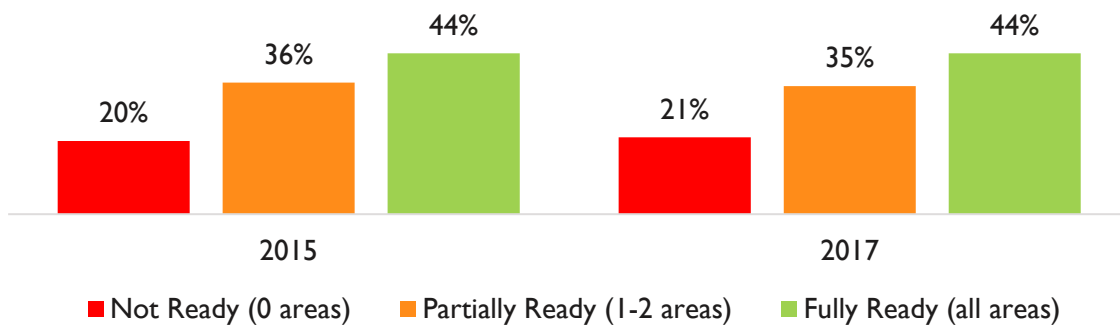
Figure 14. **Percent Ready by Building Block**



Source: Kindergarten Observation Form (2017)
 Note: N=1,367-1,444.

This year’s readiness levels were very similar to those of kindergartners participating in the last assessment in 2015, adding validity to the 2015 study findings and support for the intervention recommendations made as a result of that study. The stability of readiness ratings over time was at least partly due to minimal changes since 2015 in sample demographics (with the exception of income, see *Child and Family Demographics* section) and early childhood education experience (see *Early Childhood Education Experiences* section).

Figure 15. **Comparison of Percent Ready between 2015 and 2017**

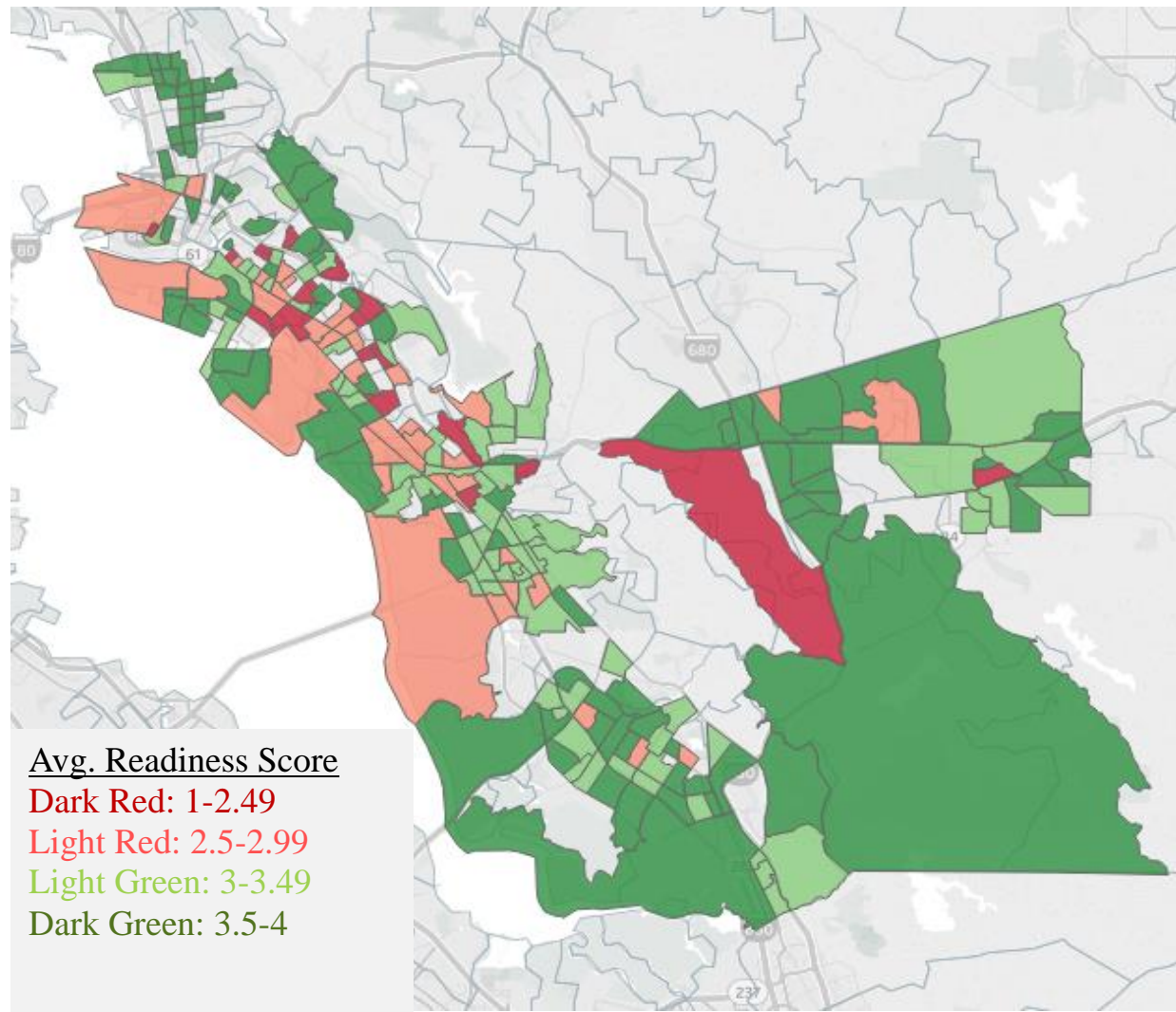


Source: Kindergarten Observation Form (2015, 2017)
 Note: N=1,460 (2015); 1,303 (2017).

In 2017, families were asked on the parent survey for the closest major intersection to their home. Using these data, the following map was created illustrating the distribution of readiness across the county. Clusters of neighborhoods with lower readiness were found in Oakland (e.g., neighborhoods near Fruitvale and the Coliseum) and Hayward (e.g., near Harder-Tennyson). In contrast, higher

readiness levels were generally found among children living in Berkeley, Albany, and Fremont, and most of Pleasanton and Livermore (although there were a few census tracts in Pleasanton and Livermore where readiness levels were lower than average).

Figure 16. **Average Overall Readiness, by Census Tract**



Section Summary

- The greatest number of students were **proficient in recognizing shapes and numbers 0-10, writing their own name, and general coordination**. The skills most students were still developing included recognizing rhyming words and letters of the alphabet, and answering questions about key details in literature.
- **Just under half of students (44%) had readiness profiles showing they were Fully Ready** across all three *Building Blocks* (i.e., scoring at least 3.25 in the *Self-Regulation, Social Expression, and Kindergarten Academics* domains). These results were very similar to the results in the 2015 assessment.

- Readiness levels varied across the county with higher readiness found in Albany, Berkeley, and Fremont, and most of Pleasanton and Livermore, and **lower readiness found in neighborhoods in Oakland and Hayward and small portions of Pleasanton and Livermore.**

Student and Family Factors Associated with Kindergarten Readiness

As part of the comprehensive readiness study, an additional analysis called *multiple regression* was conducted to examine the possible child and family characteristics and experiences that contribute to children’s preparedness for school. The techniques used allowed us to look at how selected variables are uniquely related to readiness levels, holding constant any other factors. For example, it allowed us to examine how preschool experience is related to readiness levels above and beyond the contribution to readiness from other factors, like family income and maternal education level. In addition, the analysis helped account for similarities that exist among students within a classroom and for the fact that classrooms differ from one another in a variety of ways that aren’t always measured (e.g., different teachers, different classroom environments, and different groups of peers).

Factors associated with readiness were examined using techniques that control for (hold constant) a range of child and family characteristics.

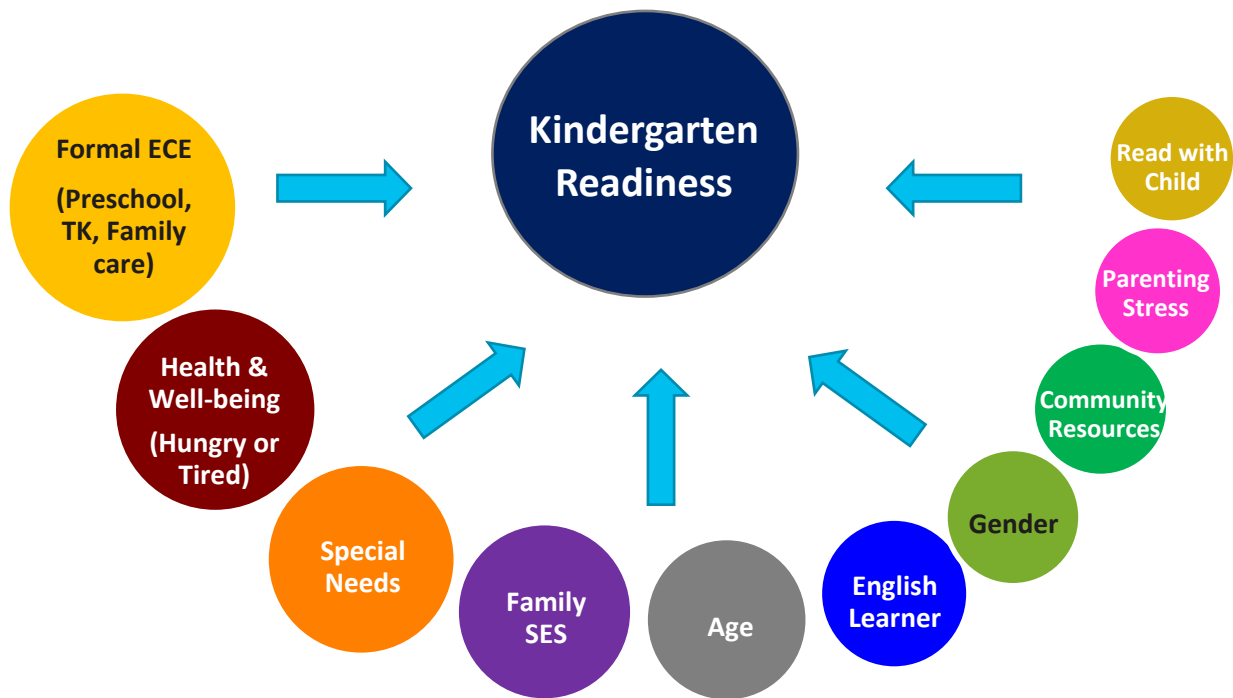
It is important to keep in mind that the analyses conducted here can help us better understand why children vary, but these are ultimately correlational – *not causal* – analyses. The only way to truly determine what causes increased readiness is by conducting a well-controlled experiment. It is also important to note that there are likely many other variables that could affect readiness that are beyond the scope of this assessment. Variables like temperament, intelligence, exposure to trauma, and style of attachment to parents/caregivers, for example, were not measured in this study, but may play an important role in children’s readiness for school. As is typical with kindergarten readiness studies, the final model of kindergarten readiness in the current year explained 37% of the variance in readiness among Alameda County children. The remaining unexplained variability in readiness is due to other factors we were not able to measure.

Predictors of Overall Readiness

The figure below shows the factors that have a unique and significant contribution to readiness county-wide even after holding constant various other important child and family factors.² This means that, although the predictors are related to one another, they each contribute to readiness even after taking into account other predictors. For example, children who attend preschool or who come to school healthy have significantly higher readiness regardless of their demographic background. The sizes of the circles below represent the relative strength of the association between the factor and readiness.

² The following variables were examined in this analysis: age at enrollment; gender; special needs status; race/ethnicity; English Learner status; child well-being (being hungry, tired, or sick); family income; maternal education; single parent household; hours of screen time on weekdays; preschool, licensed family child care, or TK attendance; child absences or tardies; low birth weight; parents’ attitudes about caring for their child; information parents received about readiness (e.g., how to help prepare their child for kindergarten); school readiness and family activities parents engaged in; housing and basic needs challenges.






Figure 17. Key Predictors of Overall Kindergarten Readiness



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: All variables in the chart are statistically significant ($p < .05$). The overall regression model was significant ($p < .001$), explaining 37% of the variance in kindergarten readiness ($R^2 = .37$).

- The strongest predictor of readiness was attendance at **licensed preschool or family child care or Transitional Kindergarten (TK)**. Children whose parents/caregivers or teachers said they had at least some formal early childhood education experience (ECE) in the prior year had higher readiness than children without any experience, after holding constant other factors.
- The next strongest predictor was **child health and well-being**. Although there were relatively few children who had such issues, those who were perceived by their teachers to be frequently hungry or tired had readiness levels that were much lower than their peers without well-being concerns, controlling for other child and family factors.
- As might be expected, children with **special needs** scored lower than children without any developmental concerns, after taking into account other child and family factors.
- Children whose **mothers had higher education** or whose **family income was higher** had higher readiness than children from families of lower socioeconomic status (SES), after holding constant other factors.
- **Age** was also a strong predictor of readiness. Older students were more likely to be prepared for school than their younger peers, after controlling for other child and family characteristics.

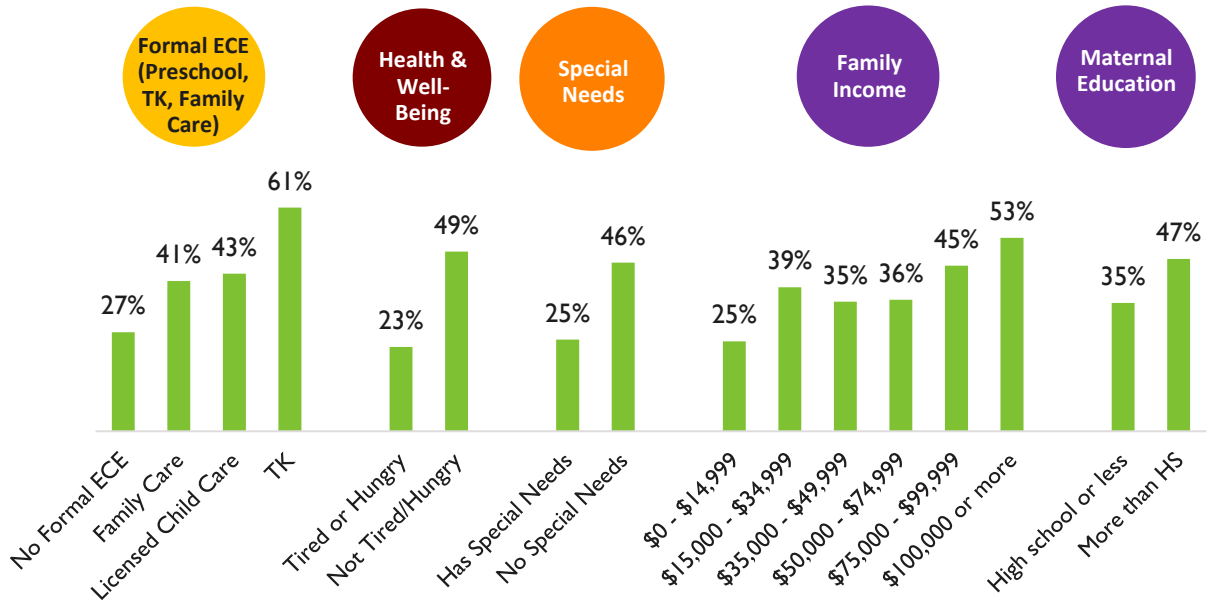
-  Likewise, children entering school as **English Learners** were behind their non-English Learner peers in readiness, controlling for other child and family characteristics. It should be noted that this is not due to the language of the assessment – the assessment is conducted in the child’s preferred language when possible; children are not assessed on language-dependent items when language barriers are concerned.
-  **Girls** tended to be more ready for school than boys, after accounting for other factors.
-  Readiness scores were slightly higher among children whose families had used **more community resources** in the past year, including libraries, museums, and parks, after accounting for other factors. It was particularly beneficial to children when both the child’s father and mother used these resources.
-  Scores were also higher among children whose parents/caregivers experienced **lower levels of parenting stress**, meaning they did not feel bothered by their child’s behavior, they did not believe that their child was harder to care for than other children, or they did not have difficulty managing their child’s behavior.
-  Children who **read with a parent/caregiver daily** also had higher readiness scores compared with their peers.

Predicted Readiness Gains Associated with Each Predictor

Using multivariate regression, one can estimate students’ readiness levels as predicted by individual factors, while holding other associated factors constant. Below, a series of charts highlights the extent to which the above factors were independently associated with likelihood of being *Fully Ready*, after controlling for the other predictors of readiness.

Forty-one percent of children who attended family child care, 43% who attended licensed center-based care or preschool, and 61% who attended Transitional Kindergarten were *Fully Ready*, after controlling for other significant factors. In contrast, only 27% of children without ECE were ready, holding constant other predictors of readiness. Similarly, 49% of children who came to school well-rested and well-fed, 46% of children who were typically developing, 53% of children whose family income was more than \$100,000 per year, and 47% of children whose mothers had more than a high school education were *Fully Ready* when they enter kindergarten, controlling for other factors. Conversely, 23% of children who were tired or hungry, 25% of children with special needs, 25% of children from families earning less than \$15,000 per year, and 35% of children whose mothers had no more than a high school education were *Fully Ready*.

Figure 18. **Adjusted Percent Ready, by Predictors: Early Childhood Education, Health/Well-Being, Special Needs, Family Income, Maternal Education**

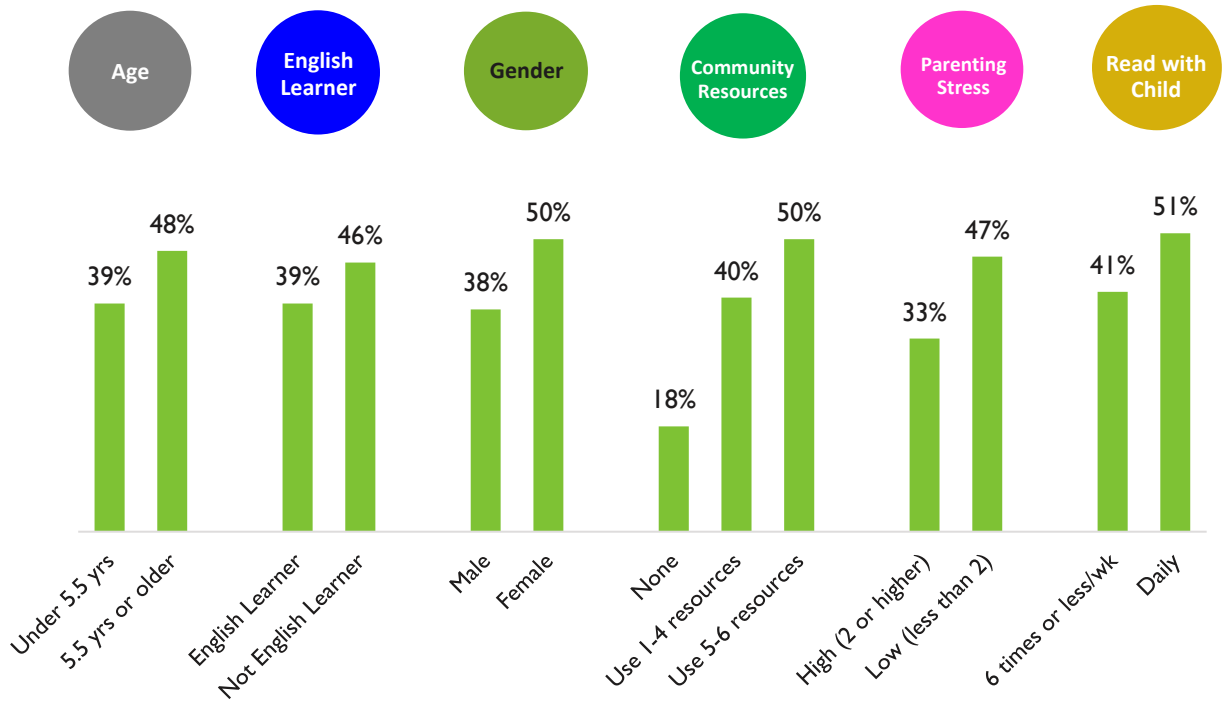


Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=1,083. All differences are statistically significant (p<.05). Adjusted for all other significant predictors in the regression model.

Controlling for other significant predictors of readiness, 48% of children who were at least 5.5 years old, 46% of children who were proficient in English, and 50% of girls were *Fully Ready* for school (compared to 39% of younger children, 39% of English Learners, and 38% of boys). Half of children whose families had used five or more community resources in the past year, 47% of children whose parents/caregivers experienced lower levels of parenting stress, and 51% of children who were read to daily were *Fully Ready* for kindergarten. Just 18% of children were ready for kindergarten if their family did not use any community resources, 33% were ready if their parents/caregivers experienced high levels of parenting stress, and 41% were ready if their parents/caregivers did not read to them on a daily basis.

Figure 19. **Readiness, by Predictors: Age, English Learner, Gender, Community Resources, Parenting Stress, and Reading with Child**



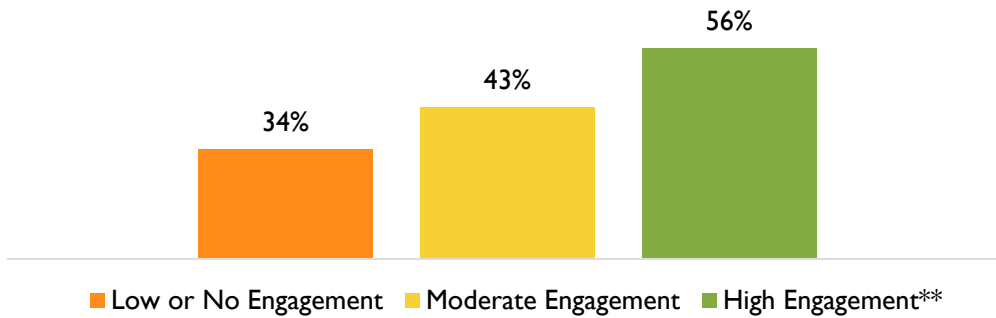
Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=1,083. All differences are statistically significant (p<.05). Adjusted for all other significant predictors in the regression model.

Effect of Father’s Use of Community Resources

Although the use of community resources, including parks, libraries, and museums, by any parent/caregiver was associated with higher readiness, children particularly benefited when their fathers used these resources. As shown in the following chart, only 34% of children with fathers who had low or no engagement with community resources (i.e., used 0-1 resource) were *Fully Ready* for kindergarten. In contrast, 43% of children with fathers who had moderate engagement (i.e., used 2-4 resources) were *Fully Ready* and 56% of children with fathers who had high engagement (i.e., used 5-6 resources) were *Fully Ready*.

Figure 20. **Percent Fully Ready, by Level of Father Engagement with Community Resources**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=1,178. **Statistically significant $p < .01$. Resources included parks, zoos, libraries, museums, recreational activities, and arts and music programs. Adjusted for age, gender, race/ethnicity, special needs, English Learner, family SES, preschool attendance, and well-being.

Comparison to 2015 Predictors

The following table compares the predictors of readiness that emerged in 2015 to those in the 2017 assessment. The rankings provided in the columns for each year represent the relative strength of the factor’s association with readiness in each study. Although most of the predictors of readiness were constant across years, several factors rose up as predictors in 2017, including use of community resources, parenting stress, and reading frequently with the child. It should be noted that parenting stress was not measured in 2015. Also, some factors that predicted readiness in 2015 were not significant in 2017, including race/ethnicity, screen time, and single parenthood. In 2017, SES, which is correlated with these predictors, was a more powerful predictor; once we controlled for SES in the current year, these factors were no longer significantly associated with readiness. However, this highlights the benefits of addressing all malleable factors associated with readiness, as changes in one can lead to changes in other correlated factors.

Figure 21. **Predictors of Readiness 2015-2017**

	2015 Rank	2017 Rank
Child attended formal early childhood education	2	1
Child did not come to school tired or hungry ³	1	2
Child does not have special needs	4	3
Family is higher SES	7	4
Child is older	3	5
Child is not an English Learner	5	6
Child is a girl	6	7

³ In 2015, appearing ill or sick was also a component of the well-being index that significantly predicted readiness. In 2017, this component was not as strongly associated with the other two well-being indicators (tiredness and hunger); therefore the well-being index in the regression model in 2017 was composed only of teacher reports of tiredness and hunger. Nevertheless, it should be noted that appearing sick was significantly correlated with readiness in both years.

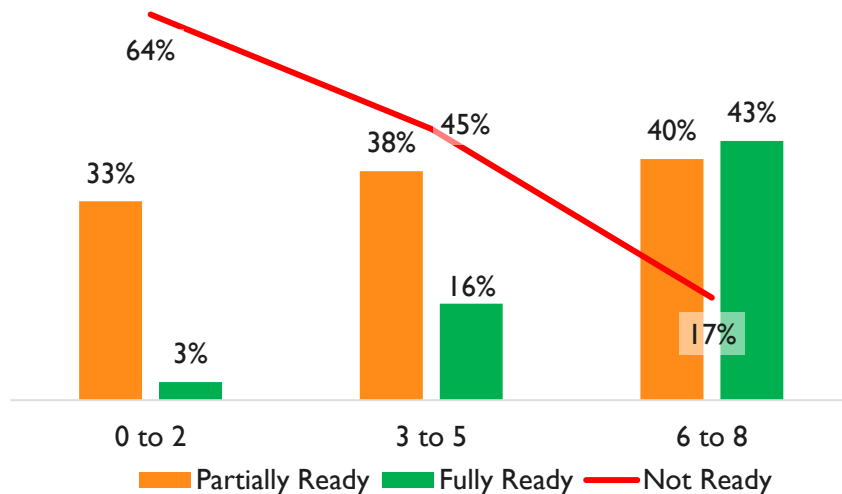
	2015 Rank	2017 Rank
Family used more community resources	N/A	8
Parent/caregiver reported less parenting stress	N/A	9
Family read more frequently with child	N/A	10
Child race/ethnicity (not black/AA)	8	N/A
Child exposed to less screen time	9	N/A
Parent/caregiver is not a single parent	10	N/A

Cumulative Effect of Malleable Predictors on Children’s Readiness

To illustrate how the readiness levels of children at risk for lower readiness may be improved with intervention, the charts in this section show the readiness of boys of color and children in low SES families relative to the number of positive malleable predictors of readiness that are present (only factors correlated with readiness that can be changed were included).

Although boys of color tend to have lower than average readiness scores, their readiness improves substantially when they are exposed to formal ECE, their health and well-being needs are cared for, their families read to them regularly, and their families use resources and supports in the community. Only 3% of boys of color were ready when 0-2 predictors were present, but 43% were ready when 6-8 predictors were present.

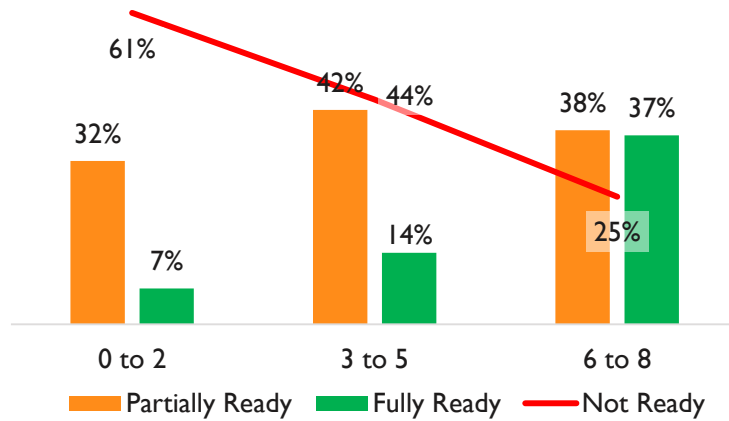
Figure 22. Percent of Boys of Color Fully Ready, by Number of Predictors



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=590. Boy of color was defined as any boy who is not white. Positive malleable predictors of readiness include being well-rested and well-fed, attending ECE, high use of community resources, engagement in kindergarten readiness activities, engagement in family activities, receipt of kindergarten readiness information, and low parenting stress.

Similarly, the chart below shows that the more positive predictors a child from a low SES family has, the more likely it is that he or she is ready for kindergarten. Thirty-seven percent of children from low SES families who had 6-8 predictors were *Fully Ready* for school, compared to just 7% of children in low SES families who had fewer than three predictors.

Figure 23. **Cumulative Effect of Malleable Predictors for Children in Low SES Families, Percent Ready by Number of Predictors**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=476. Low SES was defined as family income under \$35,000 and/or maternal education high school or less. Positive malleable predictors of readiness include being well-rested and well-fed, attending ECE, high use of community resources, engagement in kindergarten readiness activities, engagement in family activities, receipt of kindergarten readiness information, and low parenting stress.

Section Summary

- The following factors were most predictive of children's readiness for school:
 - Preschool, licensed family child care, or Transitional Kindergarten (TK).
 - Health and well-being (not being hungry or tired).
 - Not being diagnosed with special needs.
 - Higher family income and higher maternal education.
 - Age (being older).
 - Fluent in English (not an English Learner).
 - Gender (girls more ready for school than boys).
 - Use of community resources in past year (e.g., libraries, museums, and parks).
 - Lower levels of parenting stress.
 - Parent/caregiver reading daily with child.

- The use of community resources by all parents/caregivers was associated with higher readiness, but children received an additional boost in their readiness levels when their **fathers were highly engaged** in these resources.
- **Predictors of readiness in 2015 and 2017 were similar**, and in both years, many predictors were correlated with one another. Influencing one factor may lead to changes in other factors (e.g., higher SES is associated with improved child health and well-being; see *Children's Health, Development, and Well-Being* section).
- **The more positive malleable predictors of readiness the child has, the higher his or her readiness levels**; targeting these predictors can boost the readiness levels of children at risk of not being ready for school, including boys of color and those coming from low SES families.

Kindergarten Students and Families in the 2017 Readiness Study

This section describes the characteristics of the children and families who participated in the 2017 kindergarten readiness study. Demographic characteristics of the 2015 and 2017 samples are also compared.

Child and Family Demographics

The sample had slightly more males than females (53%), and children were 5.5 years old on average when they entered kindergarten. According to teachers, 38% of children were English Learners. Fifty-one percent of the sample spoke only English at home, while 20% spoke only Spanish; another 12% were bilingual in English and another language. Small percentages spoke other languages, including Chinese (6%), Hindi (5%), and Vietnamese (1%). These characteristics were virtually unchanged from 2015.

Figure 24. **Students' Gender, Age, and English Learner Status**

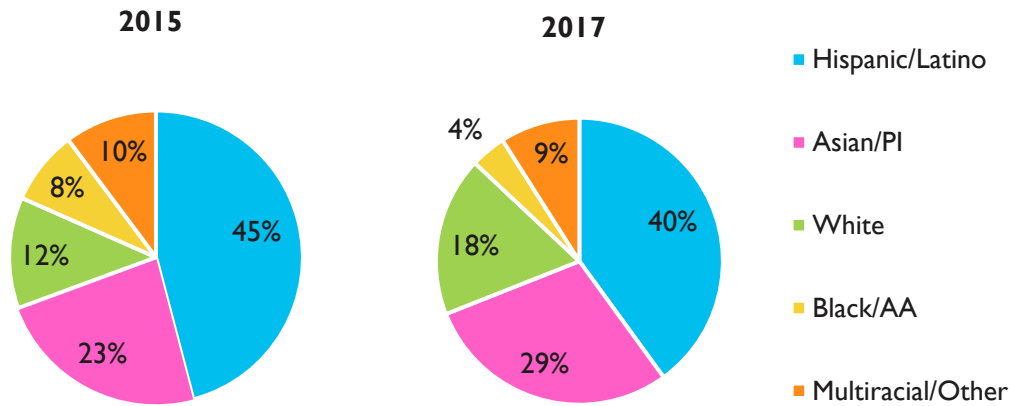
	2015	2017
Gender		
Boys	50%	53%
Girls	50%	47%
Age (average age = 5.5 yrs)		
Under 5 ½ years	47%	47%
At least 5 ½ and less than 6 years	47%	46%
6 years and older	6%	7%
English Learner	40%	38%
Not an English Learner	60%	62%

Source: Kindergarten Observation Form (2015, 2017), Parent Information Form (2015, 2017)

Note: N=1,297-1,530.

Hispanic/Latino students comprised the largest racial/ethnic group in the sample – 40% were Hispanic/Latino of any race. Twenty-nine percent of students were Asian/Pacific Islander, 18% were white, 9% were multiracial/other, and 4% were African-American. Compared to 2015, there were fewer African-American and Hispanic/Latino children in the sample, but more Asian/Pacific Islander and white children.

Figure 25. **Percent of Kindergarten Students of Each Race/Ethnicity**



Source: Kindergarten Observation Form (2015, 2017), Parent Information Form (2015, 2017)
 Note: N=1,444-1,530. Percentages may not sum to 100 due to rounding.

Maternal Education and Family Income and Structure

Previous research has identified a kindergarten readiness gap based on family socioeconomic status that often widens over time (Crosnoe & Cooper, 2010; Halle et al., 2006; Ryan, Fauth, & Brooks-Gunn, 2006). As in the current study, other research indicates that children born to less educated parents/caregivers and to poorer families have significantly lower readiness levels than their peers with more educated and affluent parents/caregivers. Just over half of mothers (52%) had earned a college degree (associate’s or higher) and another 17% had attended some college. The percent of mothers who had at least some college was similar across years.

In contrast, family income was generally higher in 2017 than in 2015. For example, 38% of families in 2015 earned under \$35,000 per year, whereas 27% of families in 2017 earned this much. Likewise, a higher proportion of families in 2017 (42%) than in 2015 (30%) earned over \$100,000 per year. At the same time, the cost of living in Alameda County rose significantly over this time period,⁴ which may have counteracted any benefits children and families accrued with higher income.

Sixteen percent of the parents/caregivers considered themselves a single parent in 2017, somewhat fewer than in 2015.

It should be noted that maternal educational attainment, family income, and single parenthood were highly correlated with one another, though maternal education and family income each contributed independently to readiness. There are other characteristics also correlated with these factors that help explain their contribution to readiness, including parental job loss, poor child

⁴ For example, fair market rent for a one-bedroom in Alameda County rose from \$1,663 in fiscal year 2016 (October 2015-September 2016) to \$1,855 in fiscal year 2018 (October 2017-September 2018), an increase of \$192 per month, or \$2,304 per year (Source: Department of Housing and Urban Development). According to the most recent data from the Alameda County Child Care Portfolio, the costs of childcare have risen in recent years as well. In 2014, for example, full-time preschool care in a licensed center was \$11,113 per year on average, compared to \$13,373 per year in 2016, an increase of \$2,260 (Source: California Resource and Referral Network, Alameda County Child Care Portfolios).

health, not reading with the child regularly, living in a neighborhood that the parent/caregiver feels is unsafe, and housing instability.

Figure 26. **Maternal Educational Attainment, Family Income, and Single Parenthood**

	2015	2017
Mother's Education		
Less than High School	15%	17%
High School Diploma	16%	13%
Some College	21%	17%
Associate's Degree	9%	7%
Bachelor's Degree	22%	26%
Advanced Degree	17%	19%
Family Income		
Under \$15,000	15%	11%
\$15,000-\$34,999	23%	16%
\$35,000-\$49,999	12%	12%
\$50,000-\$74,999	12%	19%
\$75,000-\$99,999	9%	9%
\$100,000 or more	30%	42%
Single Parent	20%	16%

Source: Parent Information Form (2015, 2017).

Note: N=1,297-1,309.

Child and Family Demographics Summary

- Children were **5.5 years old** on average when they entered kindergarten.
- The children assessed in the current study were **ethnically and linguistically diverse**. Forty percent of students were Hispanic/Latino, 29% were Asian/Pacific Islander, 18% were white, 4% were African-American, and 9% were multiracial or another race/ethnicity; 38% of students were English Learners, with the majority speaking Spanish as their preferred language.
- Many families were **socioeconomically disadvantaged**. Nearly 30% of children in the study came from families making under \$35,000 per year. In addition, 30% of mothers had no more than a high school education.
- One in six children lived within a **single-parent household**.

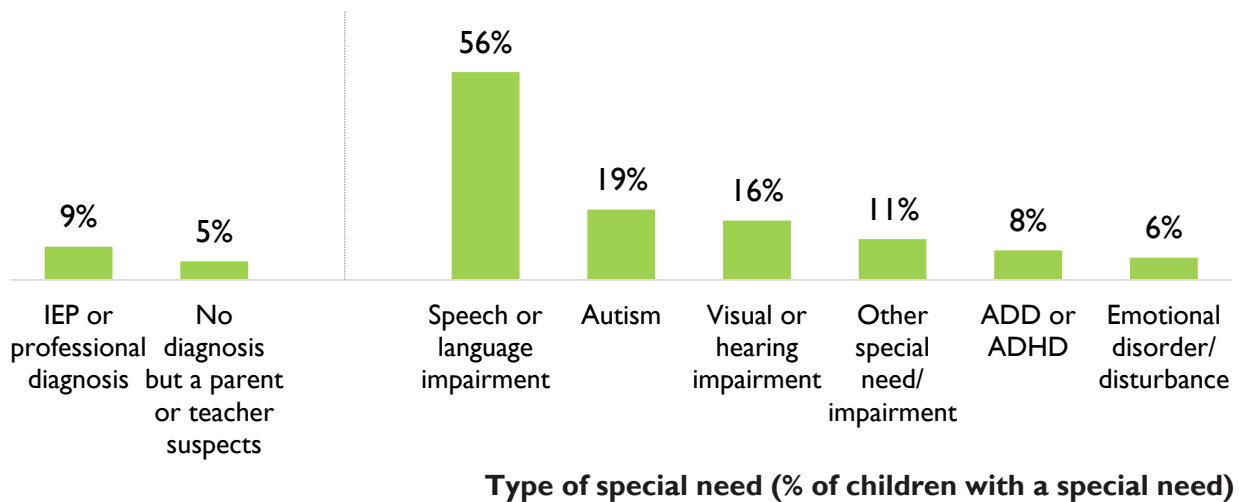
Children’s Health, Development, and Well-Being

This section describes the sample on health, development, and well-being indicators, and the characteristics of children and families that are most strongly associated with child health and well-being.

Special Needs

This study found that children with special needs had significantly lower readiness than their typically developing peers. Both parents/caregivers and teachers were asked about children’s special needs.⁵ According to parents/caregivers and/or kindergarten teachers, 9% of children had a special need diagnosed by a professional. Another five percent were suspected to have a special need by a parent/caregiver or teacher. Most parents/caregivers of special needs children – including 93% of those with diagnosed special needs, and 32% of those *suspected* of having special needs – had sought treatment for their children. Parents/caregivers and teachers who indicated that a child had a special need were asked to describe the diagnosis. As shown in the figure, speech and language challenges were the most common concerns, affecting 56% of students with special needs. Other less common concerns included autism-related challenges, visual or hearing impairments, and other special needs/impairments.

Figure 27. **Special Needs Status, Overall**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 N=1,404 for presence of special need; N=119 for type of special need.

Low Birth Weight

Although it did not emerge as a significant predictor of readiness in this sample, previous research has shown an association between low birth weight and early school difficulties and grade retention

⁵ Parents were asked whether the child had a special need that had been diagnosed by a professional, while teachers were asked whether the child had an IEP or designated special need. If the child did not have a diagnosed special need or IEP, parents and teachers were asked to indicate whether they believed the child had a special need.

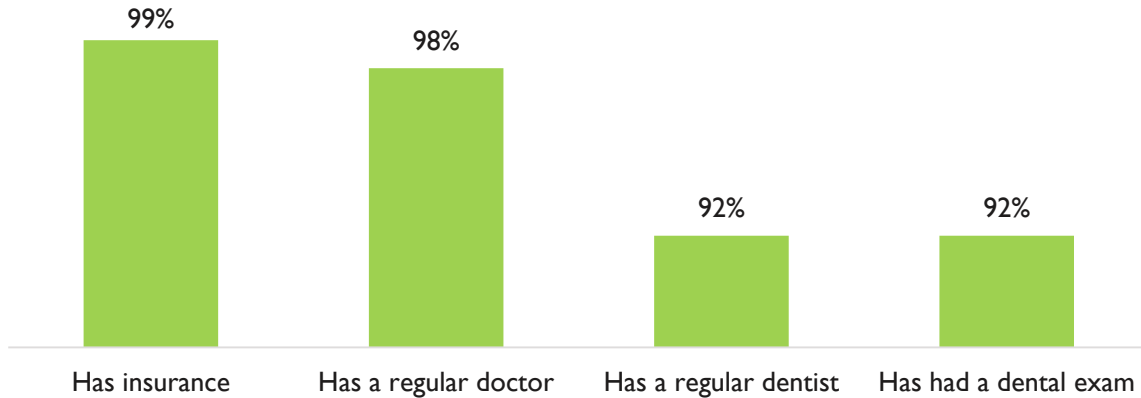
(e.g., Byrd & Weitzman, 1994). Therefore, a question about low birth weight was included on the *Parent Information Form*. Among the children in the assessment, 7% had qualified as low birth weight, having weighed less than five pounds, eight ounces.

Health Insurance, Receipt of Health Screenings, and Access to Health Providers

The *Parent Information Form* contained several questions relating to children's access to and use of various health services. Nearly all students (99%) had health insurance of some form. Over half of all students (61%) were covered by private insurance, while 36% were insured by Medi-Cal.

Parents/caregivers were also asked if their child had a regular source of medical care and a dentist. Almost all children (98%) had a regular doctor, pediatric provider, or clinic, and 92% had a regular dentist. Ninety-two percent of children had also been to a dentist in the last year.

Figure 28. **Children's Access to Health Care**



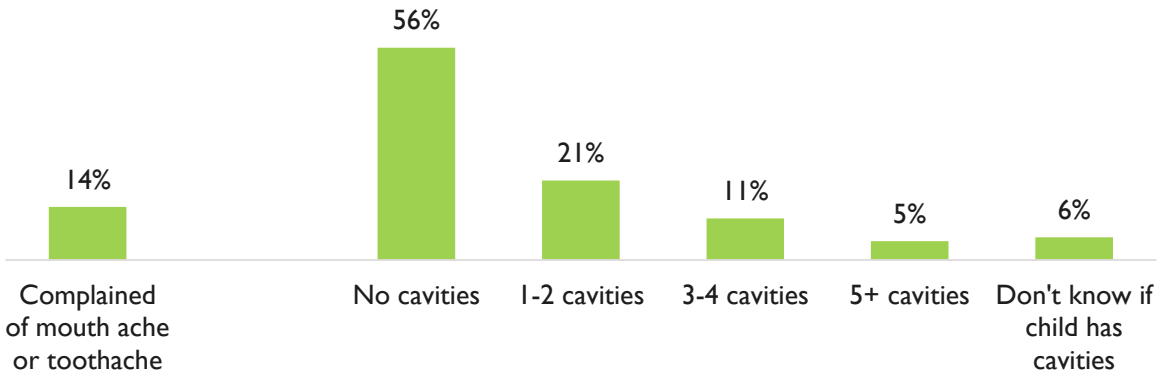
Source: Parent Information Form (2017)

Note: N=1,315-1,318.

Although most children had been to the dentist recently, 14% had complained of a toothache or mouth ache to their parent/caregiver and at least 37% of children had at least one cavity.⁶

⁶ Teachers were also asked if the child had a toothache; only 1% of the sample had complained of a toothache to their teacher.

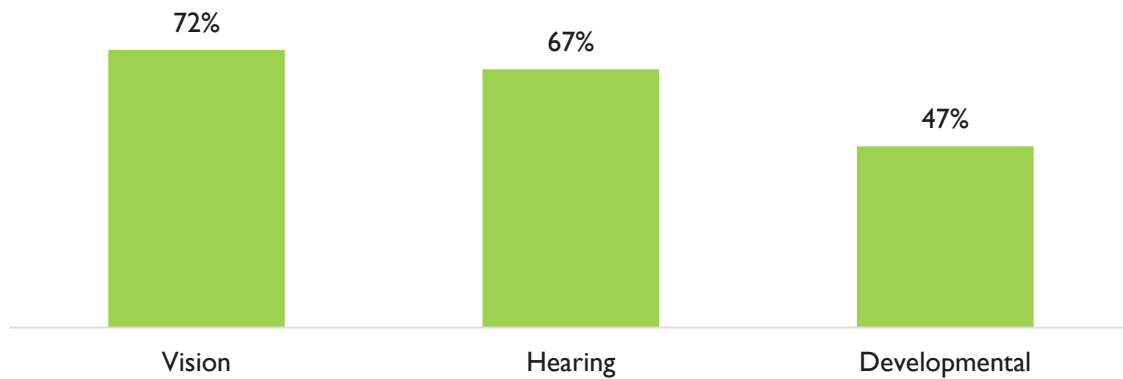
Figure 29. **Children's Oral Health**



Source: Parent Information Form (2017)
 Note: N=1,297-1,312.

Most children had received a hearing and vision exam (67% and 72%, respectively). Forty-seven percent had received a developmental screening in the year prior to the readiness assessment.⁷

Figure 30. **Children's Health Screenings**



Source: Parent Information Form (2017)
 Note: N=1,293.

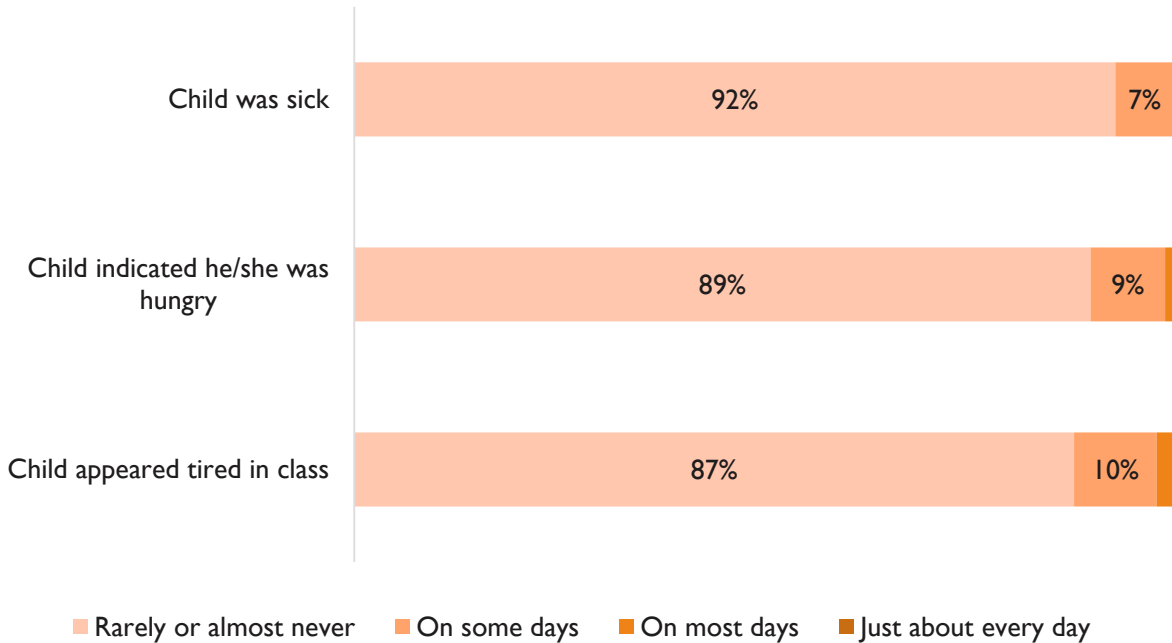
Teacher Reports of Health and Well-Being

The 2017 assessment found that children who came to school with well-being concerns, particularly those exhibiting signs of tiredness or hunger, had lower readiness levels than their healthy peers, even after controlling for other key child and family factors that contribute to readiness (such as ECE experience and family SES). In the overall sample, 319 children (22% of the sample) appeared tired,

⁷ In the previous assessment in 2015, 23% of children had received a developmental screening.

sick, or hungry, on at least some days, according to their teachers (including 274 children, 19% of the sample, who were only tired or hungry).⁸

Figure 31. **Health and Well-Being**



Source: Kindergarten Observation Form (2017)

Note: N=1,436-1,439. Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled.

When controlling for other key child and family characteristics, five factors were significantly associated with well-being concerns (defined as coming to school sick, tired, or hungry on at least some days in the first few weeks of school).⁹ The significant correlates of well-being included race/ethnicity (being Hispanic/Latino, white, or multiracial/other), family income (lower income), maternal education (less education), having a single parent/caregiver, and having higher parenting stress (i.e., difficulty managing the child’s behaviors). These factors were *independently* related to well-being; for example, children in single-parent families were more likely than children in multi-parent families to come to school tired, sick, or hungry, after accounting for their demographic profile and parenting stress levels.

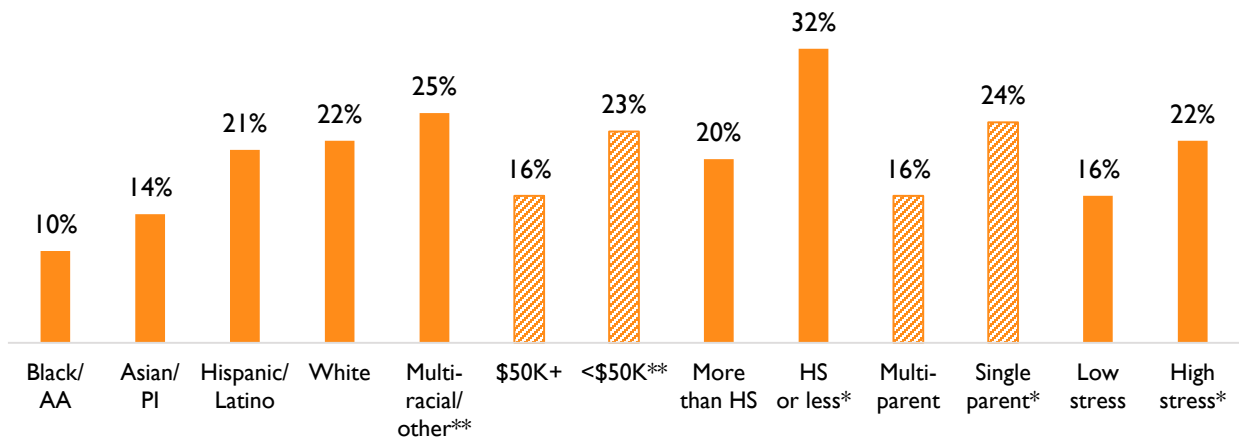
The chart below displays the percent of children with each characteristic who came to school tired, sick, or hungry on at least some days, controlling for other factors. For instance, 10% of African-American children presented well-being concerns, while 22% of white children were reported to

⁸ This set of questions also asked teachers to report how often the child was absent or tardy; approximately 10% of the sample was tardy or absent on at least some days.

⁹ Coming to school sick was not as strongly associated with tiredness and hunger in 2017, but it was an important component of the well-being index in 2015 and correlated with readiness in both years.

demonstrate these issues. Likewise, 23% of children from families that earned less than \$50,000¹⁰ and 32% of children who had mothers with no more than a high school education exhibited well-being concerns, but no more than one in five children from higher socioeconomic status families had such concerns. Twenty-four percent of children with a single parent/caregiver appeared tired, sick, or hungry on at least some days, compared to 16% of children in multi-parent families. Finally, 22% of children whose parents/caregivers reported having difficulty managing their children’s behaviors came to school with well-being concerns, while 16% of children whose parents/caregivers reported having few parenting challenges had well-being concerns.

Figure 32. Percent with Well-Being Concerns, by Child/Family Characteristics



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,223. *Statistically significant at p<.05; **statistically significant at p<.01.

In addition to these independent predictors of well-being concerns, there were other characteristics of children and families that were correlated with well-being *without* controlling or holding constant other factors. For example, children with well-being concerns were more likely to be English Learners, have special needs, not have access to health insurance or a dentist, and to not have formal ECE experience. They also were read to less frequently and were exposed to more screen time. Their parents/caregivers reported higher levels of stress, including recent job loss, homelessness, and feeling unsafe in their neighborhood. Finally, families of children with well-being concerns were exposed to fewer community resources, like parks and libraries, but were more likely to receive home visits and use Women, Infants, and Children services. Again, because these experiences are also correlated with child and family demographics, they were not significantly associated with well-being after controlling for other factors.

¹⁰ In these analyses, \$50,000 emerged as the most appropriate income cut off based on the data.

Children's Health, Development, and Well-Being Summary

- Nine percent of children had a **diagnosed special need** at the time of kindergarten entry, and the most common of these were speech and language challenges (56% of diagnosed students). Just 7% of children were born **low birthweight**.
- Nearly all children had **health insurance** (99%) and a regular **doctor** (98%). Slightly fewer had a regular **dentist** (92%), and at least 37% had at least one **cavity**.
- About three out of four children had received a **vision or hearing exam** in the past year, and 47% of children had received a **developmental screening** in the past year.
- Just over one in five children exhibited **health and well-being concerns** (i.e., appearing tired, hungry, or sick) on at least some days. The strongest predictors of health and well-being challenges included race/ethnicity (e.g., Hispanic/Latino and white children were more likely than African-American and Asian/Pacific Islander children to have well-being concerns), lower family socioeconomic status, single parenthood, and higher parenting stress.
- Although nearly all of the factors that independently contributed to well-being concerns in the 2017 assessment are demographic in nature, the **level of parenting stress** reported by the parent/caregiver was significantly and independently related to child health and well-being as well, even after accounting for other significant predictors of well-being. Parents/caregivers who had difficulty caring for their child or managing their child's behaviors were more likely to have children with well-being concerns than parents/caregivers who did not have such challenges. These findings suggest that providing parenting support and addressing any developmental issues that may be contributing to caregiver stress can improve child health and well-being and help ensure that children are ready for school.

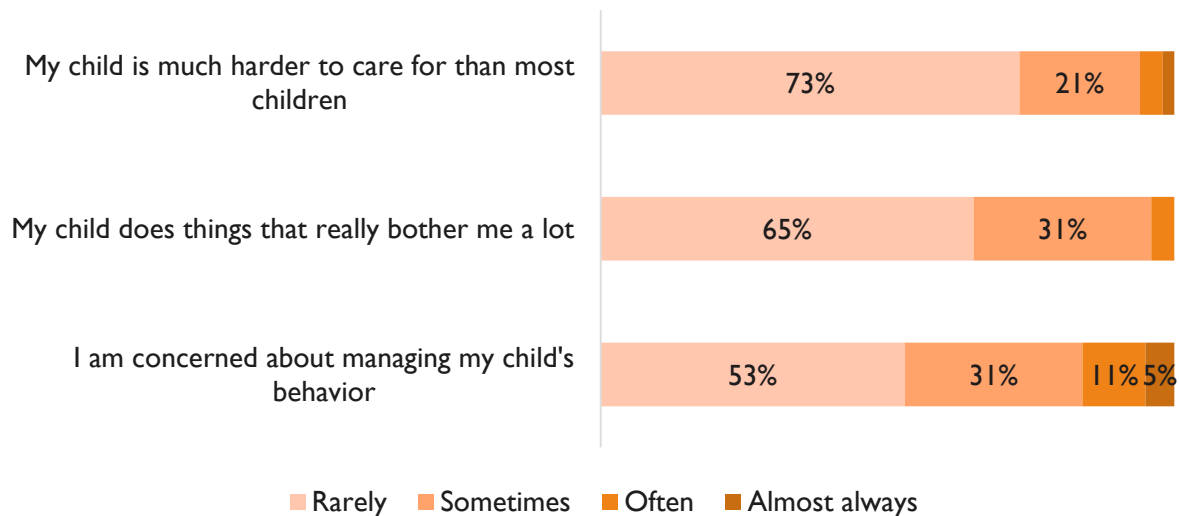
Family and Neighborhood Stressors

Parents/caregivers also indicated on the *Parent Information Form* their experiences with various types of family, parenting, and neighborhood stressors.

Family and Parenting Stress

Parents/caregivers who reported high levels of parenting stress had children with significantly lower kindergarten readiness scores, even after controlling for other key factors related to parenting stress, such as the presence of special needs and the family’s socioeconomic status. Over one-third of parents/caregivers said that their child does things that really bothered them and nearly one-quarter said that their child is much harder to care for than most children. Close to half of parents/caregivers were at least somewhat concerned about managing the child’s behavior.

Figure 33. **Parenting Stress**



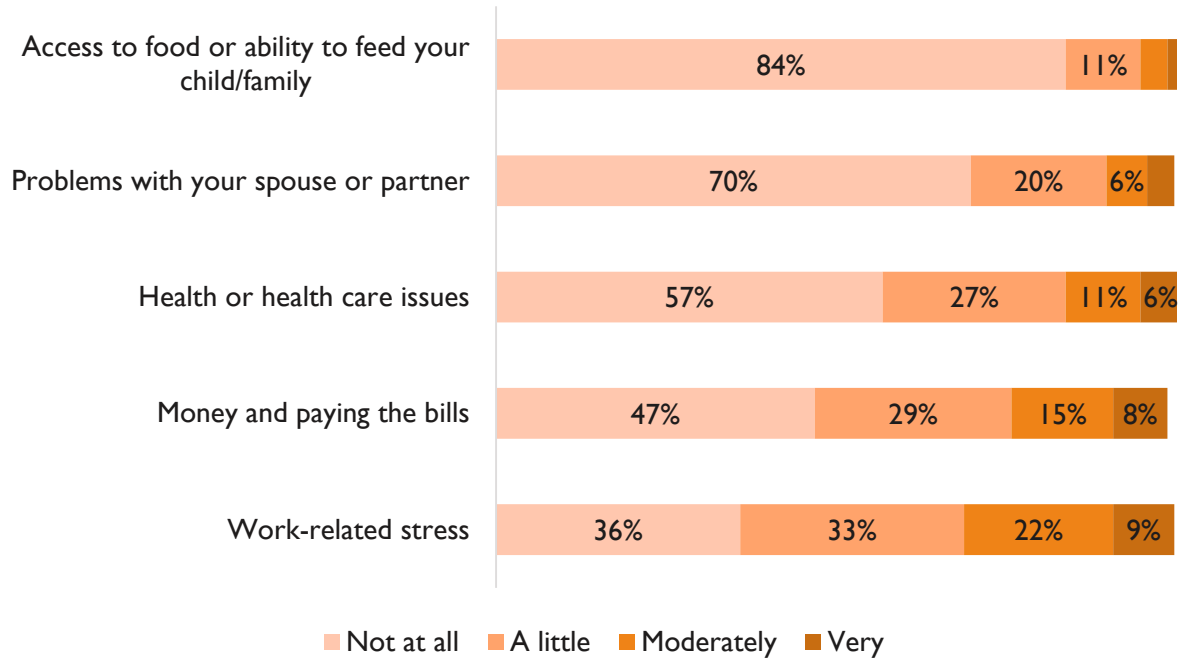
Source: Parent Information Form (2017)

Note: N=1,282-1,301. Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled.

In the current year, nearly two-thirds of families reported at least some work-related stress and over half reported concerns about money and paying the bills.¹¹ Many families also said they were at least a little concerned about health or health care issues (43%). Other concerns were less commonly reported.

¹¹ Ten percent of respondents said a parent or primary caregiver had recently lost a job.

Figure 34. **Parent Reports of Family and Domestic Concerns**



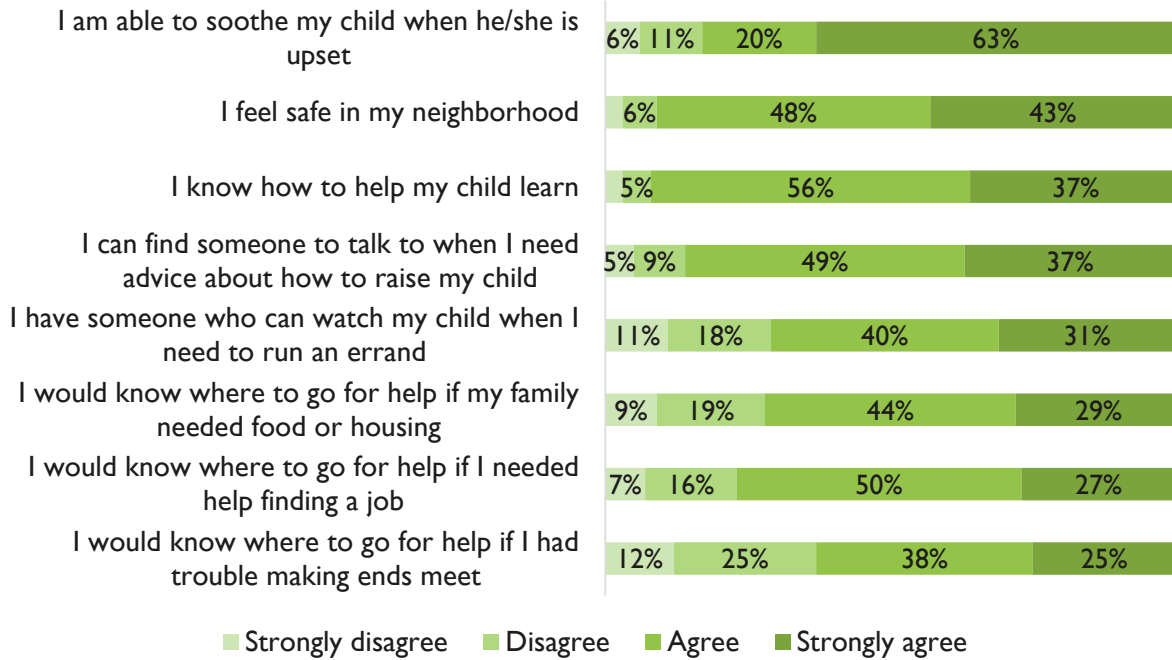
Source: Parent Information Form (2017)

Note: N=1,267-1,290. Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled.

Parenting Beliefs and Neighborhood Safety

The *Parent Information Form* included a set of questions to assess parents'/caregivers' perceptions of being supported in their parenting, confidence in their parenting abilities, and the safety of their neighborhoods. The vast majority of parents/caregivers felt they were able to soothe the child when he or she was upset (83%) and felt safe in their neighborhood (91%). Nearly all agreed that they knew how to help their child learn (93%) and that they had someone to talk to for advice about parenting (86%). Over seven in ten parents/caregivers had someone who can watch their child if they needed to run an errand. Most parents/caregivers also said they know where to go if they needed help with finding a job or with basic needs. Over three-quarters said they know where to go for help finding a job; 72% said they know where to go to access food; and 63% know where to go for help making ends meet.

Figure 35. **Parenting Beliefs and Neighborhood Safety**



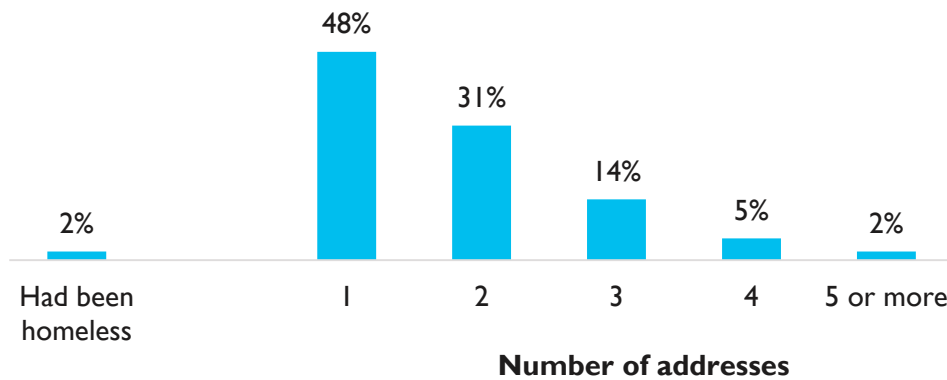
Source: Parent Information Form (2017)

Note: N=1,293-1,318. Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled.

Housing Instability: Family Mobility & Homelessness

To measure family mobility, parents/caregivers were asked how many addresses they had lived at since the birth of their child. Over half of families had moved at least once in the child’s lifetime. In addition, 2% of families reported that they had experienced homelessness at some point in the child’s lifetime.

Figure 36. **Family Mobility and Homelessness**



Source: Parent Information Form (2017)

Note: N=1,327-1,343. Percentages may not sum to 100 due to rounding.

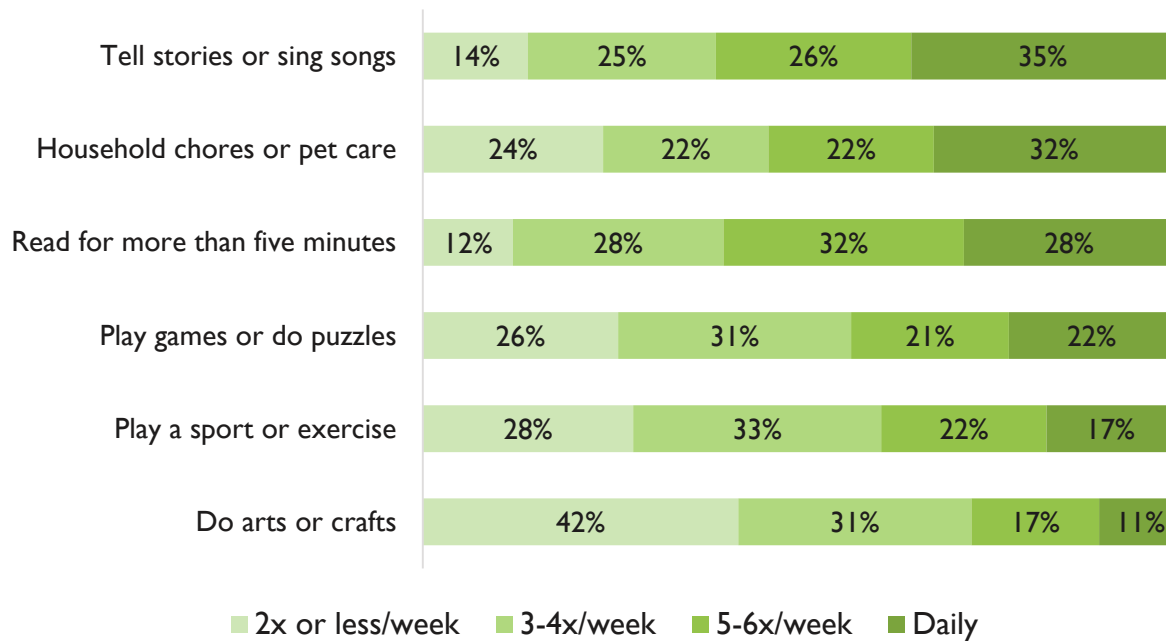
Family and Neighborhood Stressors Summary

- Over half of parents/caregivers reported experiencing some form of **parenting stress** (i.e., concerns about managing the child's behavior, feeling the child does things that bothered them, or feeling the child is harder to care for than other children) at least sometimes.
- Over half of parents/caregivers also reported **work-related stress** or concern about **making ends meet**, and 10% had **lost a job** in the past year.
- Most parents/caregivers felt well supported with respect to **taking care of their children and taking care of basic needs**. However, 29% of parents/caregivers did not have someone to watch their child when they needed to run an errand and 37% did not know where to go for help if they had trouble making ends meet.
- Two percent of children had been **homeless** at some point, and 21% have had at least three different home addresses by the beginning of kindergarten.

Family Activities and Routines

To better understand families’ routines and activities, parents/caregivers were asked to report how often they spent time doing a variety of activities with their child during a typical week, including reading, telling stories or singing songs, doing household chores, playing games or doing puzzles, doing arts or crafts, and playing sports or exercising. In the current study, the frequency with which families read to their children was significantly and positively associated with kindergarten readiness. Families were most likely to report telling stories or singing songs on a daily basis and were least likely to do arts and crafts with their child every day.

Figure 37. **Frequency of Family Activities per Week**



Source: Parent Information Form (2017)

Note: N=1,265. Percentages may not sum to 100 due to rounding.

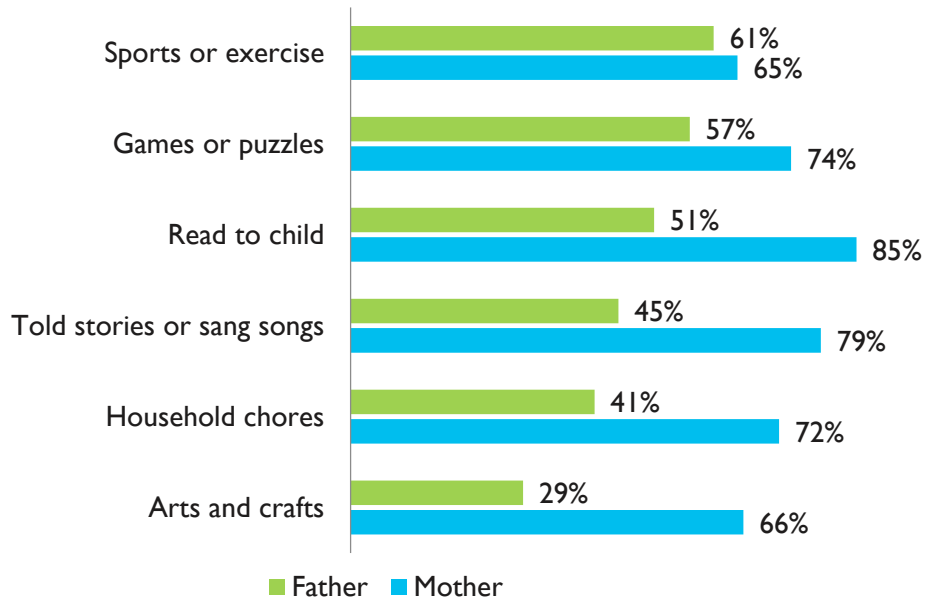
There were parent/caregiver differences in engagement in these family activities, with the mother more likely to engage in all activities than the father. However, the gap between mother and father engagement was smallest for sports or exercise and largest for arts and crafts.

Figure 38. **Family Activities**

Ave. Number

Mother = 4

Father = 3



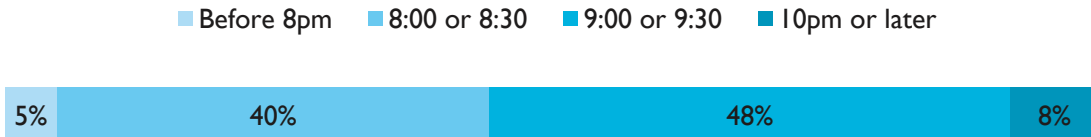
Source: Parent Information Form (2017)

Note: N=1,325.

Bedtime and Screen Time

Just under half of children (45%) went to bed before 9PM on weeknights. Eight percent went to bed at 10PM or later.

Figure 39. **Weeknight Bedtimes**



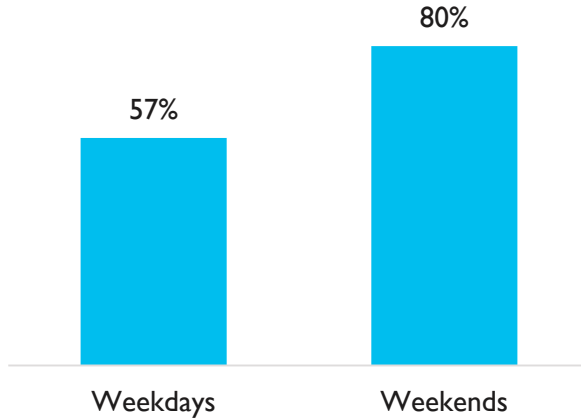
Source: Parent Information Form (2017)

Note: N=1,349. Percentages may not sum to 100 due to rounding.

The American Academy of Pediatrics (AAP, 2016) recommends that young children aged 2-5 get no more than one hour of “screen time” per day, which includes time spent watching television or videos or playing video or computer games. This recommended limit is to allow children ample time for other activities, like playing outdoors and engaging with books.

Among children in this assessment, over half of children were exposed to more than the recommended one hour of screen time per day, even during the school week.

Figure 40. **Percent Exposed to Over One Hour per Day of Screen Time**



Source: Parent Information Form (2017)
Note: N=1,295.

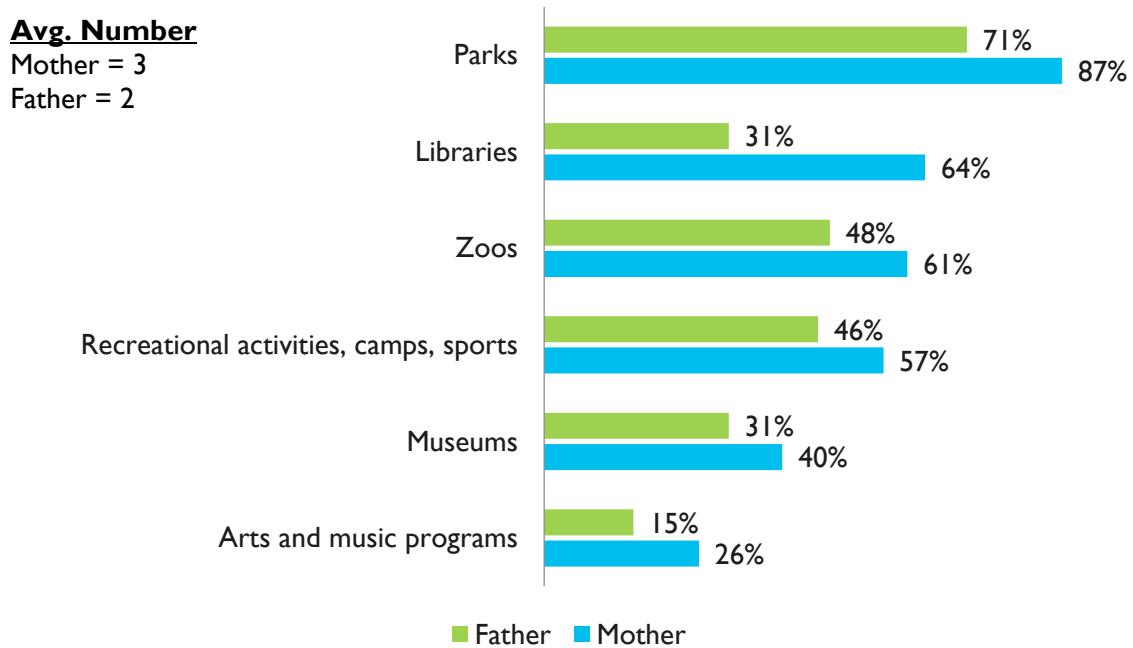
Family Activities and Routines Summary

- More than half of all children engaged in **family activities** with family members at home – such as reading together or telling stories and singing songs – at least five times per week.
- Over half of children had a regular **bedtime** that was 9PM or later.
- Fifty-seven percent of children spent over an hour **watching TV or playing video/computer games** on weekdays, more than the amount recommended by American Academy of Pediatrics.

Resources, Programs, and Services to Support Families

As mentioned earlier in the report, families’ use of community resources was a significant predictor of kindergarten readiness in the current year. It was particularly beneficial for children’s readiness when the child’s father utilized these resources, which included local parks, libraries, recreational activities, camps and sports, museums, zoos, and arts/music programs. The most widely used resources by parents/caregivers were local parks, followed by libraries, zoos, and recreational camps or sports. Far fewer families reported attending arts and music programs or going to local museums. Mothers were more likely to use all resources than fathers, but the gap in engagement was largest for libraries.

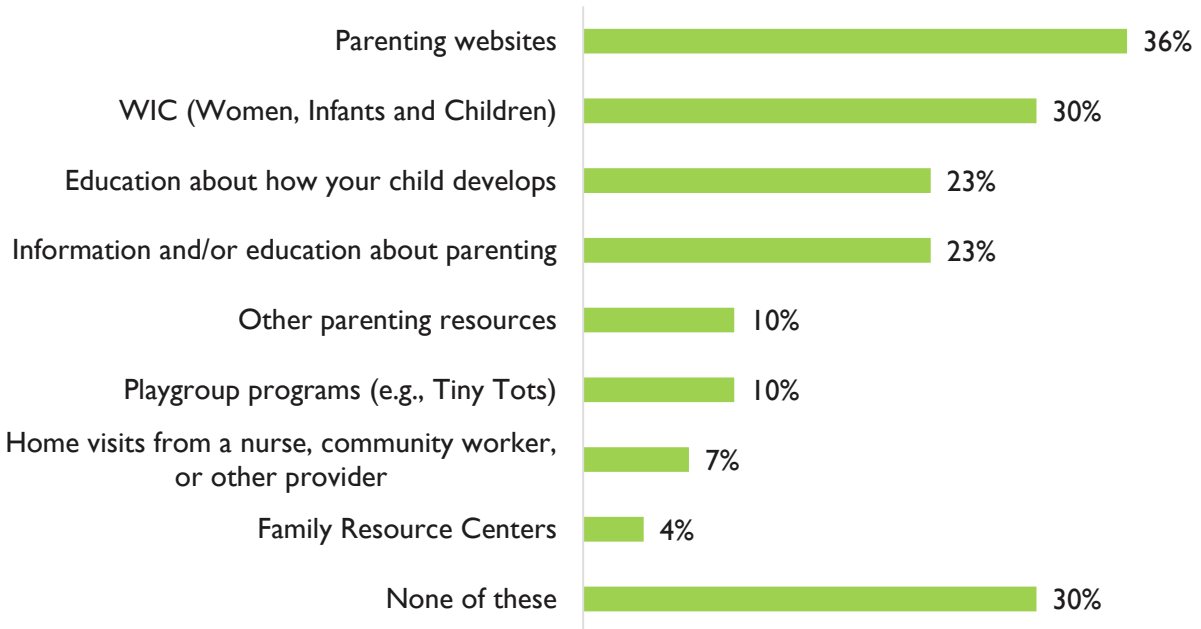
Figure 41. **Use of Community Resources**



Source: Parent Information Form (2017)
 Note: N=1,338.

Parents/caregivers were also surveyed about their use of a variety of parent programs and services. The most commonly used parenting resources were parenting websites (36%), followed by WIC (Women, Infants, and Children), the federal program to support the nutritional needs of low-income families with children under 5. Thirty percent of parents/caregivers said they had participated in WIC. Roughly one in four parents/caregivers said they had received education about child development or effective parenting, and even fewer had participated in playgroup programs, received home visits from a professional, or had used Family Resource Centers.

Figure 42. Use of Parenting Programs, Services, and Supports



Source: Parent Information Form (2017)

Note: N=1,259-1,262.

Resources, Programs, and Services to Support Families Summary

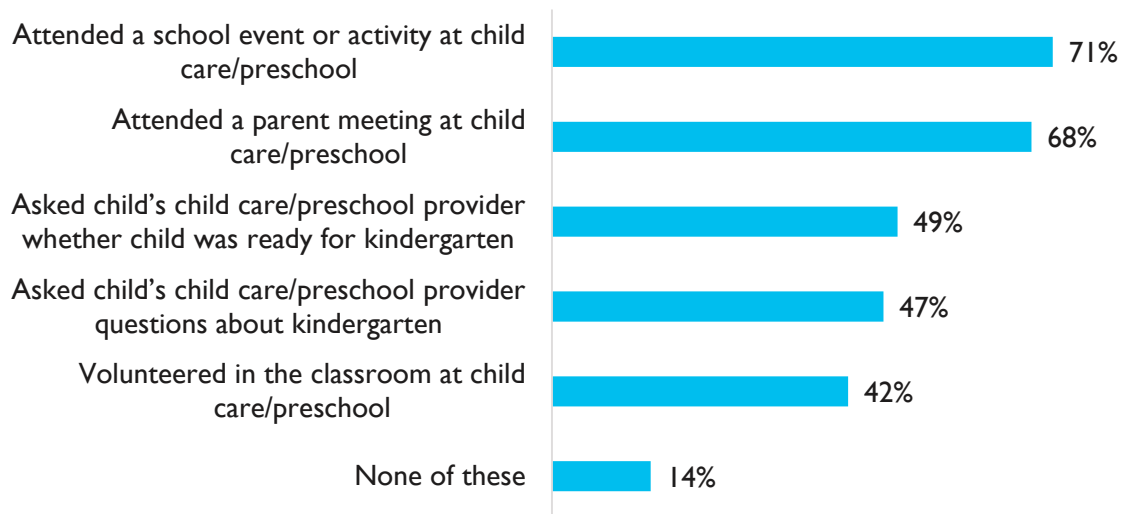
- The most commonly utilized **community resources**, as reported by parents/caregivers, were parks, libraries, and zoos, used by over 60% of families.
- Many parents/caregivers reported using **parenting programs, services, and supports**. The most frequently used resources included parenting websites (36%) and WIC (30%).

Families' Preparation for Kindergarten

Parents/caregivers were asked about the types of activities they had participated in as well as the types of information they had received to better prepare their child for entering kindergarten.

Seventy-one percent of parents/caregivers attended a school event or activity at their child care or preschool, 68% attended a parent meeting, 49% asked child's child care/preschool provider whether their child was ready for kindergarten, 47% asked them questions about kindergarten, and 42% volunteered in the classroom.

Figure 43. **Engagement in Child's Child Care/Preschool Setting**



Source: Parent Information Form (2017)
 Note: N=1,281.

Parents/caregivers also indicated the types of information they received to better prepare their child for entering kindergarten. Over three out of four parents/caregivers received information about how and when to register their child for school and general information about the readiness skills children need for kindergarten. Just over seven in ten received information about how they could help their children develop such skills, and 65% received information about how ready their child was for school.

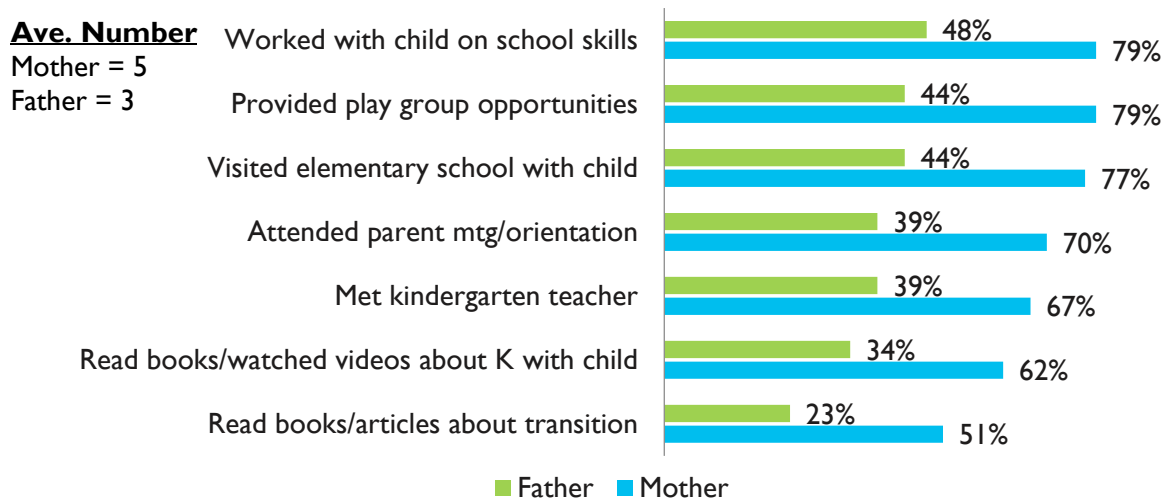
Figure 44. **Receipt of Kindergarten Readiness Information**

	Percent who received
Information about how and when to register child for school	78%
General information about the skills <i>all</i> children need for kindergarten	76%
Specific information about how you could help <i>your child</i> develop skills to be ready for kindergarten	71%
Specific information about how ready <i>your child</i> was for kindergarten	65%

Source: Parent Information Form (2017)
 Note: N=1,337-1,338.

Parents/caregivers were also asked to report on kindergarten transition activities they had engaged in prior to the start of school. The majority of parents/caregivers had worked on school skills with their child (79% of mothers and 48% of fathers), provided opportunities for the child to play in small groups with other children (79% of mothers and 44% of fathers), and visited the elementary school with the child (77% of mothers and 44% of fathers). Other transition activities were less common.

Figure 45. **Kindergarten Readiness Activities**



Source: Parent Information Form (2017)
 Note: N=1,324.

Families’ Preparation for Kindergarten Summary

- The majority of parents/caregivers reported engaging in **activities at the child’s child care or preschool site**. The most commonly reported activities included attending a school event (71%) or a parent meeting (68%).
- Most parents/caregivers also received **kindergarten readiness information**, including information about the skills children need for kindergarten (76%) and how parents/caregivers can help children develop those skills (71%).
- The most commonly reported **kindergarten readiness activities** parents/caregivers engaged in included working with the child on school skills (79% of mothers and 48% of fathers) and providing playgroup opportunities for the child (79% of mothers and 44% of fathers).

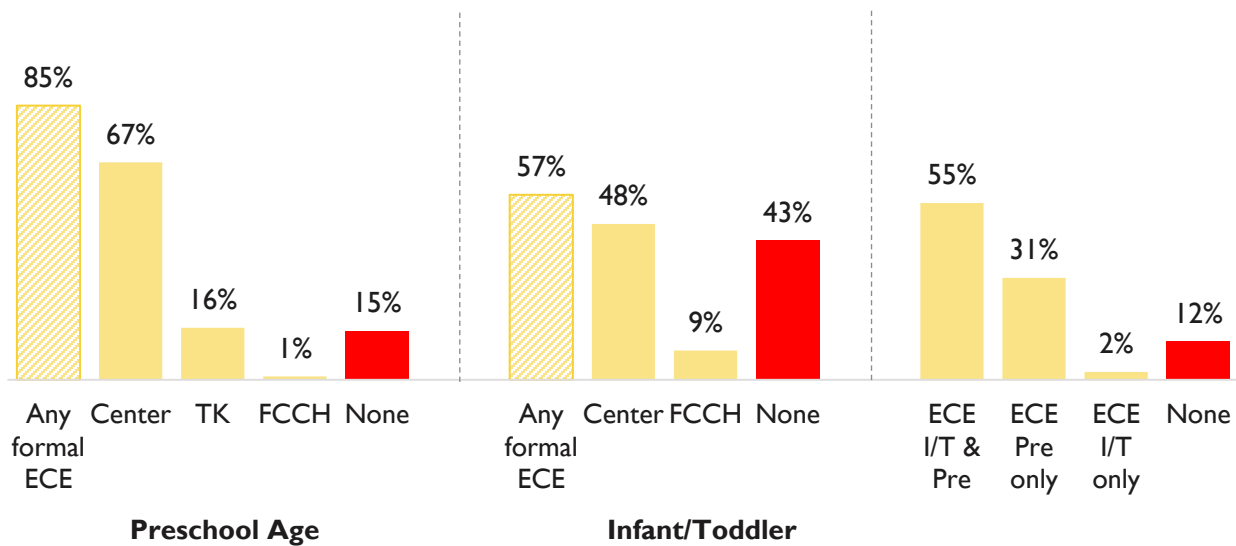
Early Childhood Education Experiences



Preschool has long been known to help reduce gaps in readiness between poorer children and their more affluent peers (Heckman, 2006; Zhai, Brooks-Gunn, & Waldfogel, 2011). Furthermore, it is associated with long-term benefits for attendees, including improved educational attainment, earnings, and employment in adulthood (Heckman & Raut, 2013). In this study, formal ECE experience was in fact the strongest predictor of higher readiness scores.

As the figure below shows, more than four out of five children (85%) attended either licensed preschool or childcare center, licensed family child care, or Transitional Kindergarten (TK) in the year prior to kindergarten. Sixty-seven percent attended preschool or a childcare center and 16% attended TK. In addition, 1% of students received care in licensed family child care. In the infant and toddler years, children were less likely to attend formal ECE; just 57% of children had formal ECE experience in the infant/toddler years. Most children who attended infant/toddler care also attended ECE in the preschool years (only 2% of the sample received care only in the infant/toddler years).

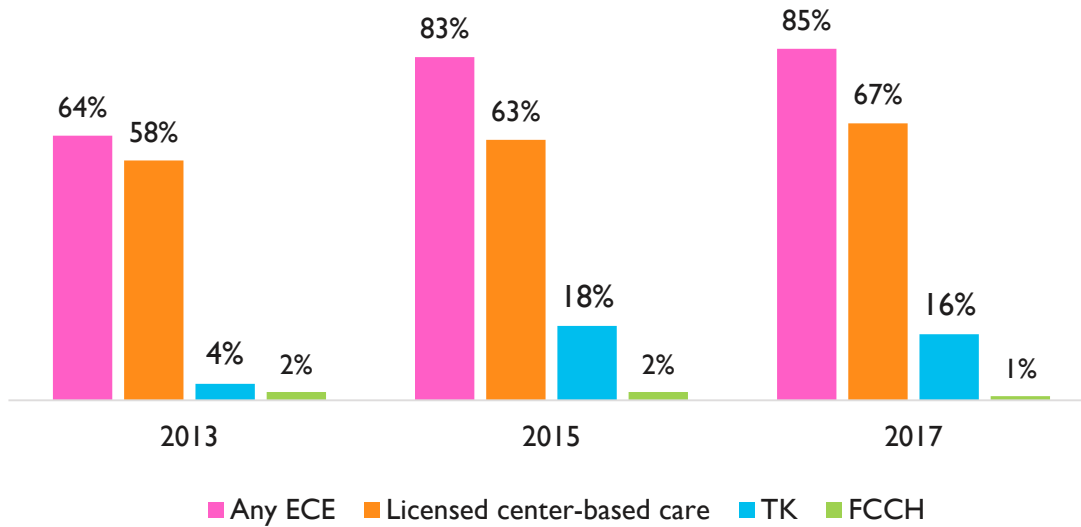
Figure 46. **Children’s Preschool/Child Care Experience**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,168-1,402.

There were few changes in ECE experience between 2015 and 2017, but the percentage of children who had formal ECE rose substantially between 2013 and 2015, driven primarily by an increase in TK attendance. Although in previous years the effect of TK on readiness was similar to that of preschool or family care attendance, in 2017, children who attended TK had higher readiness levels than children with other forms of care.

Figure 47. **Children’s Formal ECE Experience 2013-2017**

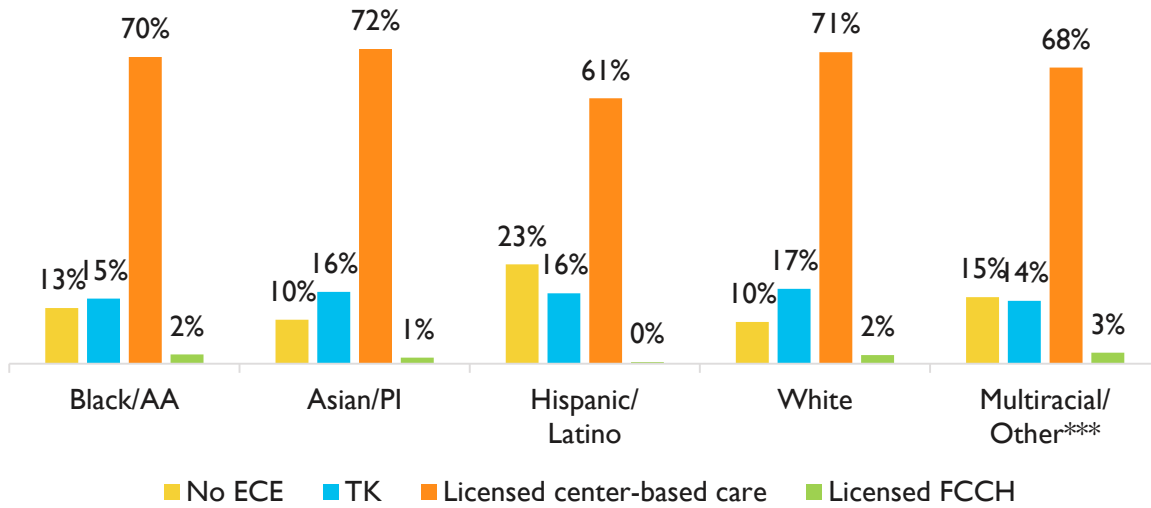


Source: Kindergarten Observation Form (2013, 2015, 2017), Parent Information Form (2013, 2015, 2017).
 Note: N=1,168-1,402.

Children exposed to formal early education came from families with higher incomes. Latino(a) children and English Learners were less likely to have formal ECE, which may indicate disproportionate access and/or cultural preferences about keeping preschool age children at home.

Preschool attendance has been shown in countless studies to be strongly related to enhanced kindergarten readiness skills. Among children in this sample, the vast majority had some form of formal early childhood education experience, and these children had higher readiness skills than those who did not. However, such experience was not uniform across subgroups of children in the sample. The following figures disaggregate preschool, family care, and TK attendance by various child and family characteristics, including race/ethnicity, English Learner status, income, maternal education, and single parenthood. All the associations were statistically significant. As the first figure shows, Hispanic/Latino students had the lowest attendance rates (61%), while Asian/Pacific Islander students were most likely to have attended formal early child care (72%).

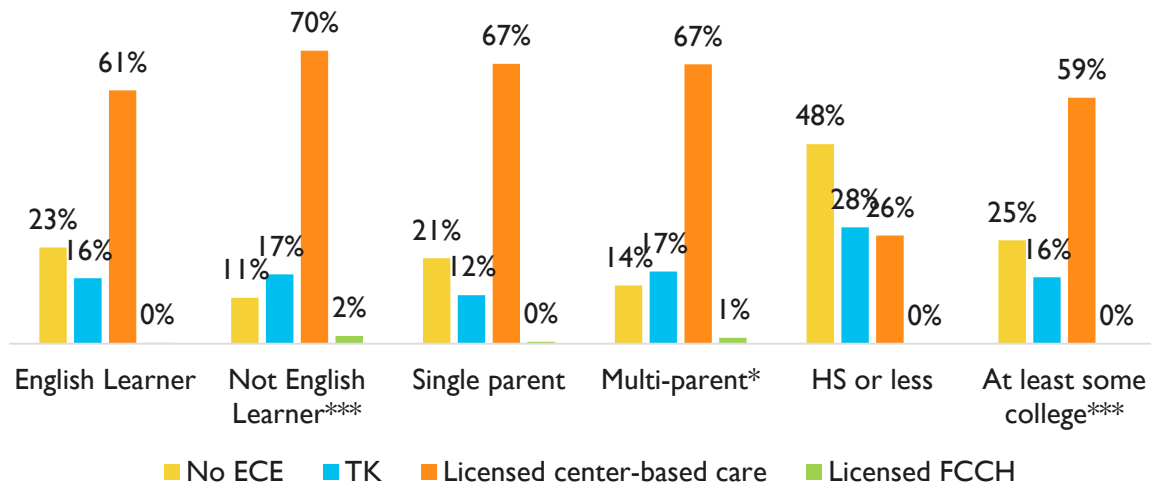
Figure 48. **Percent Attending TK, Preschool, or Licensed Family Care, by Race/Ethnicity**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,400. ***Statistically significant at p<.001.

English Learners, children of single parents, and children whose mothers had a high school education or less were more likely to have no formal early care (ECE) experiences compared to their non-English Learner peers, children in multi-parent families, and children with mothers who had at least some college.

Figure 49. **Percent Attending TK, Preschool, or Licensed Family Care, by English Learner, Single Parenthood, and Maternal Education**

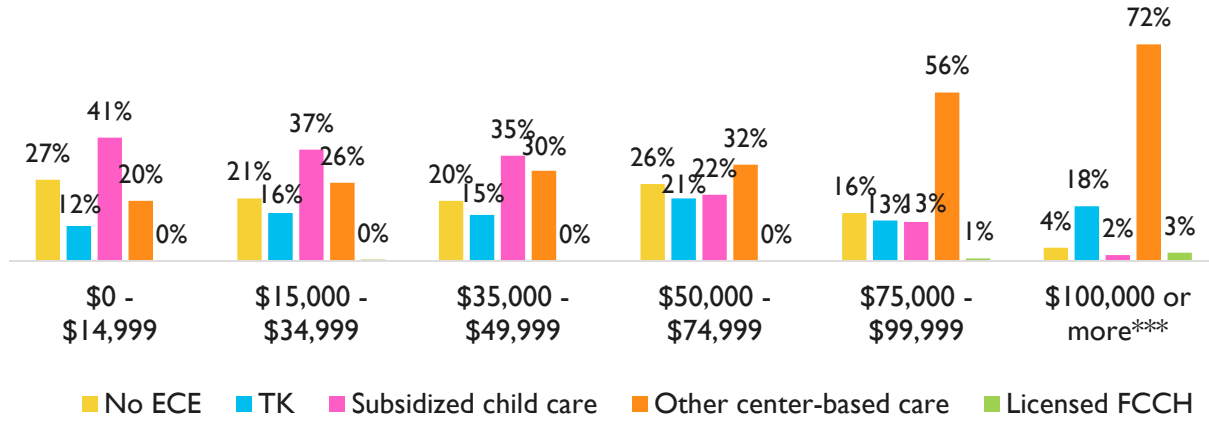


Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,303-1,402. ***Statistically significant at p<.001.

Families' choice of child care was also largely dependent on their annual income. Families whose income was under \$50,000 were significantly more likely to choose Head Start or other subsidized child care arrangements for their children than higher income families. Conversely, relative to lower

income families, families whose income was \$50,000 or higher were more likely to choose nonsubsidized licensed center-based care or licensed family child care for their children.

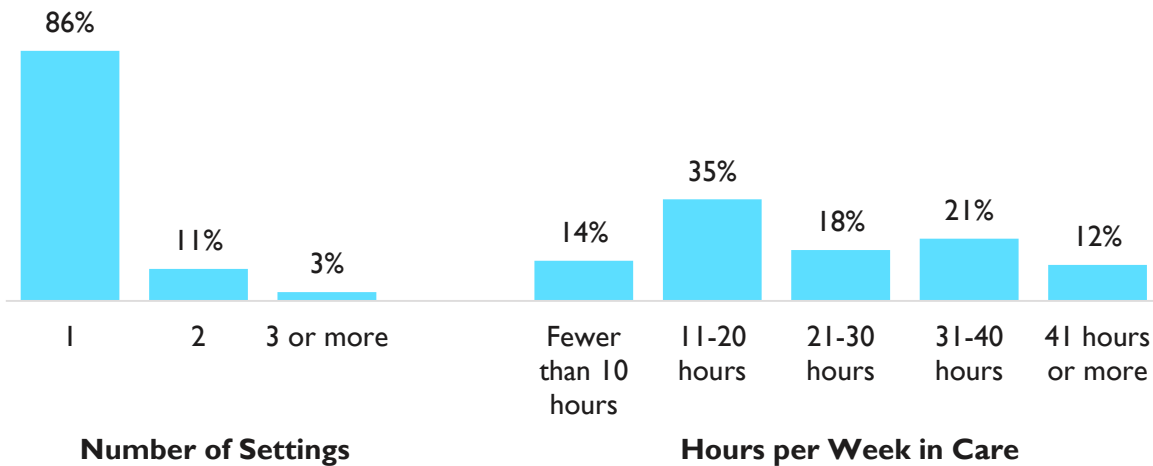
Figure 50. **Child Care Arrangements By Income**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,282. ***Statistically significant at p<.001.

The majority of children (86%) who had formal preschool/child care experiences had attended only one setting. Also, there was some variation in terms of the average number of hours children spent in care; close to half (49%) attended 20 hours per week or fewer, 39% attended 21-40 hours per week, and 12% attended over 40 hours per week.

Figure 51. **Preschool/Child Care Experiences, By Number of Settings and Hours Per Week**

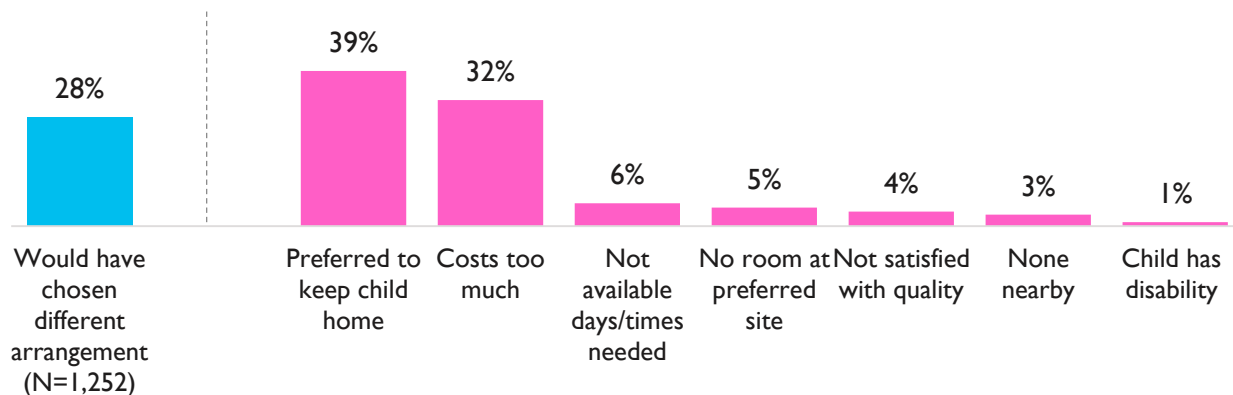


Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,131-1,132.

Over a quarter (28%) of families said they would have chosen a different arrangement if they could have afforded it. Parents/caregivers were also asked to indicate the reasons why their children were not in care. Among the families who did not place their child in care, 32% said formal care costs too much and 39% said that they preferred to keep their child at home. It is important to note that

these children without ECE experience have lower readiness scores than those in care. However, among children without ECE experience, there were no significant differences in readiness based on the *reasons* the child was not in care (e.g., readiness levels of children whose parents/caregivers preferred to keep the child at home were similar to readiness levels of parents/caregivers who cited other reasons for not having the child in care).

Figure 52. **Preschool/Child Care Experiences, By Reasons Not in Care**



**Reasons Child Not in Care
(% of 382 Children Not in Care--Infant/Toddler or Pre)**

Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,252 (different arrangement); 382 (reasons not in child care).

Responses to these questions about child care experiences varied by income and race/ethnicity. Nearly half (48%) of families earning between \$50,000 and \$75,000 per year said they would have chosen a different care arrangement if they could have afforded it, a rate higher than all other income groups. Likewise, families in this income group were most likely to say their child was not in child care because it was too costly. These are families that may not meet the income eligibility threshold for subsidized care, but also may not earn enough to keep up with the high cost of living in the county. On the other hand, families earning at least \$100,000 were more likely than families with lower incomes to say they were not satisfied with the quality of care.

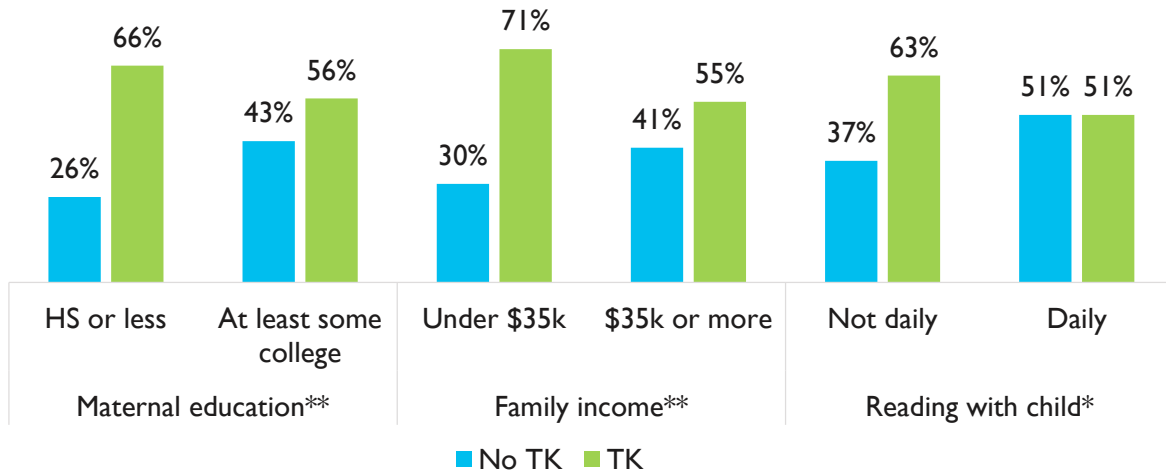
There were also significant racial/ethnic differences in the proportion of families who said child care costs too much. Nearly half of African-American families said child care was too expensive, whereas only one-quarter of Hispanic/Latino families cited this reason for not having their child in care (rates among Asian/Pacific Islander and white families fell in between, at 38% and 29%, respectively). There were no other significant differences in responses to these child care experience questions based child or family characteristics.

Child Care Experiences and Readiness

Participation in ECE was associated with higher kindergarten readiness across the sample. However, participating in TK in particular yielded greater benefits for children with certain characteristics. As shown below, the effects of TK on readiness are larger for children of mothers with lower education, children from low-income families, and children who do not read with family daily. The effects of

preschool in these subgroups were also analyzed, but only TK showed significant interactions with child and family characteristics.

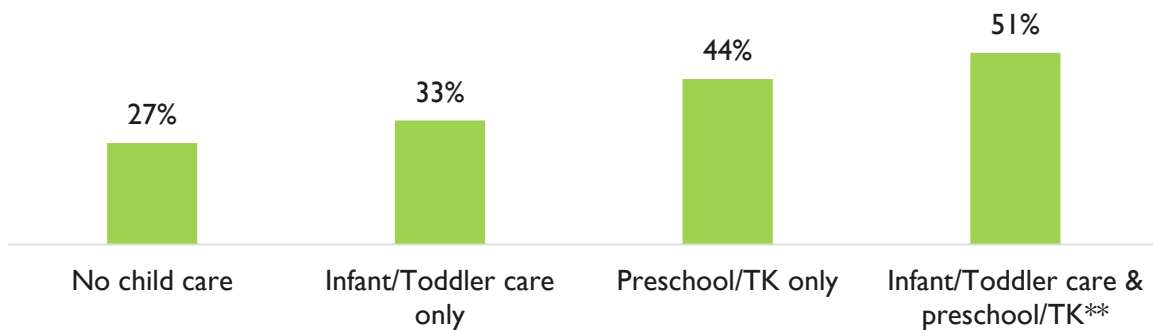
Figure 53. **Percent Fully Ready, by TK and Child/Family Factors**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,067-1,190. **Statistically significant at p<.01; *statistically significant at p<.05. Adjusted for age, gender, race/ethnicity, special needs, English Learner, and well-being.

In addition, the pattern of ECE experiences a child had in the birth to five years was associated with readiness. As shown below, attending care in both the infant/toddler years and in the preschool years boosted readiness by about 7 percentage points relative to attendance only in the preschool years. However, the readiness levels of children attending only infant/toddler care were similar to the readiness levels of children who had no child care at all.

Figure 54. **Percent Fully Ready, by Pattern of ECE Experiences**

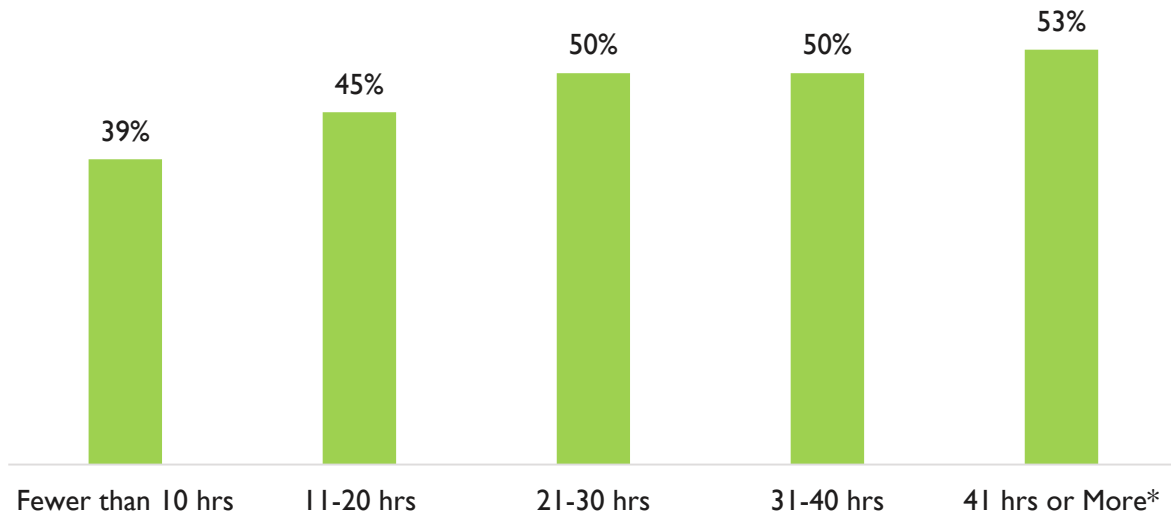


Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,029. **Statistically significant at p<.01. Adjusted for age, gender, race/ethnicity, special needs, English Learner, family SES, and well-being.

Readiness levels were also significantly and positively associated with the number of hours per week a child spent in ECE. For example, at least half of children who were in care over 20 hours per week

were *Fully Ready* for kindergarten, compared to just 39% of children who were in care fewer than 10 hours per week.

Figure 55. **Percent Fully Ready, by Hours per Week in Care**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=930. *Statistically significant at $p < .05$. Adjusted for age, gender, race/ethnicity, special needs, English Learner, family SES, and well-being.

Early Childhood Education Experiences Summary

- Overall, 85% of students had attended some type of **formal early childhood education** (preschool, licensed family child care, or TK) in the year preceding kindergarten. Fewer children were enrolled in licensed infant/toddler care (57%).
- ECE experience varied by **race/ethnicity** (Hispanic/Latino students had the lowest attendance rates), **English Learner status** (English Learners were less likely to attend), **family structure** (single parents were less likely to have their child in ECE), and **maternal education** (ECE experience was less common among children of mothers with no more than high school education). In addition, ECE experience was more common among children in high **income** families (i.e., \$75,000 or more), but enrollment in subsidized childcare was more common among children and families earning less than \$50,000 per year.
- **Child care stability** was high, with 86% of children attending only one site. One-third of children were in care **over 30 hours per week**.
- Nearly 30% of parents/caregivers said they **would have chosen a different child care arrangement** if they could have afforded it. Families earning \$50,000-\$74,999 were most likely to say they would have chosen a different child care arrangement. Among the families who did not have their child in care, 32% said childcare **costs too much**, and 39% said that they **preferred to keep the child at home**. African-American families and families earning \$50,000-\$74,999 were most likely to say that childcare costs too much. Families earning at

least \$100,000 were most likely to report that they were not satisfied with the quality of child care available.

- Participation in ECE was associated with higher readiness scores among all children, but **TK was particularly beneficial** for children of mothers with lower education levels, children from low income families, and children who did not read with their family on a daily basis.
- Kindergarten readiness levels were higher if the child **attended ECE as an infant/toddler and preschooler** than if he or she attended only as an infant/toddler or preschooler.
- Readiness levels were also higher among children who attended ECE for **at least 20 hours per week**.

Special Section: Preschool Quality (QRIS)

Across the state, preschools and family child care sites are being rated according to the Quality Rating and Improvement System (QRIS), which is intended to assess quality for the purposes of establishing standards and accountability, providing incentives to improve quality, and educating child care consumers about program quality. The sites are given a score ranging from Tier 1 (lowest quality) to Tier 5 (highest quality). Data on children who attended preschool or family child care in the 2017 Kindergarten Readiness Assessment were matched to QRIS ratings of the site they attended, wherever possible. This resulted in a subsample of 225 children whose preschool or family child care site (as reported by their parents/caregivers) could be matched to a QRIS-rated site. As shown below, these children attended one of 82 QRIS rated sites. The majority of them (127) attended a site with a rating of 4 out of 5.

Figure 56. **Number of Children and Sites in Study Sample, by Overall QRIS Rating**

QRIS rating	Number of sites	Number of children
Tier 2	4	7
Tier 3	20	75
Tier 4	49	127
Tier 5	9	16
Total	82	225

The children who attended a QRIS site went on to attend 43 different elementary schools in 13 school districts. Schools in which 10 or more children with a QRIS rating attended are Tyrrell, Harder, Haight, Park, Schafer Park, Washington, Community United, Glassbrook, and Palma Ceia.

Figure 57. Number of Children in QRIS Sites, by Elementary School

School	Number of children	School	Number of children
Tyrrell	18	Frederiksen	4
Harder	14	Laurel	4
Haight	12	Chabot	3
Park	11	Corvallis	3
Schafer Park	11	Garfield	3
Washington	11	Harvey Green	3
Community United	10	Joe Michell	3
Glassbrook	10	Colonial Acres	2
Palma Ceia	10	East Oakland Leadership	2
Grant	9	EnCompass	2
Ruus	7	Fruitvale	2
Amelia Earhart	6	James Madison	2
Carl B. Munck	6	Mattos	2
Jackson Avenue	6	North Oakland Community Charter	2
Kennedy	6	Oliveira	2
Strobridge	6	Donlon	1
James Monroe	5	Hearst	1
Lodestar	5	Leitch	1
Southgate	5	Manzanita Community	1
Azevada	4	Marin	1
Bridges	4	Thornhill	1
Esperanza	4	43 schools	225 children

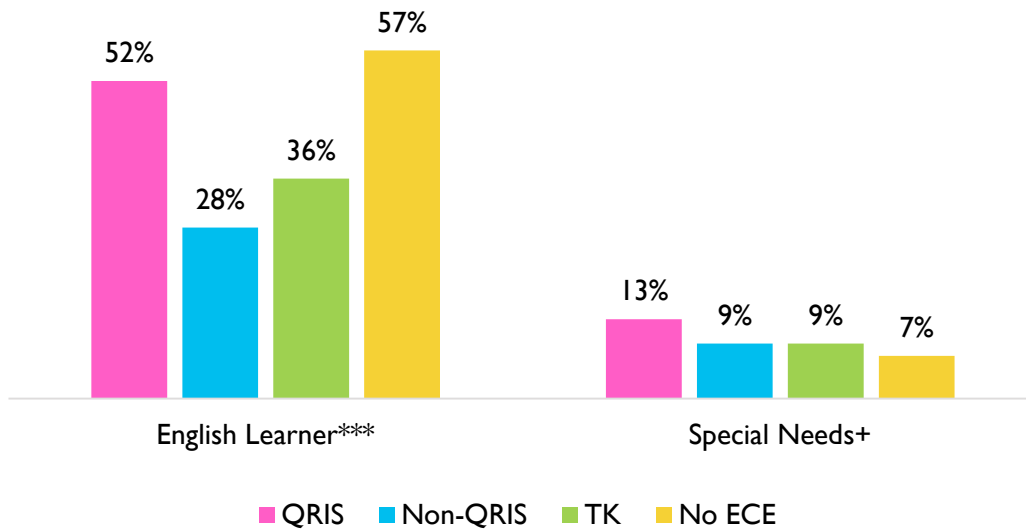
Child and Family Characteristics of Children Attending a QRIS Site

The characteristics of children who went to a QRIS-rated site (i.e., QRIS children) were compared with the characteristics of children who went to other licensed center-based or family child care settings (i.e., non-QRIS children), children who attended Transitional Kindergarten (TK), and children who did not have any formal Early Childhood Education (ECE) experience (i.e., children without ECE). There were 225 QRIS children, 737 non-QRIS children, 229 TK children, and 215 children without ECE included in the analysis.

Demographic Characteristics

First, the demographic characteristics of these subsamples were compared. These groups differed in English Learner status, presence of special needs, race/ethnicity, maternal education, and family income. As shown below, children without ECE and QRIS children were more likely to be English Learners compared to non-QRIS children and TK children. QRIS children also were more likely to have a diagnosed special need compared to other children in the sample.

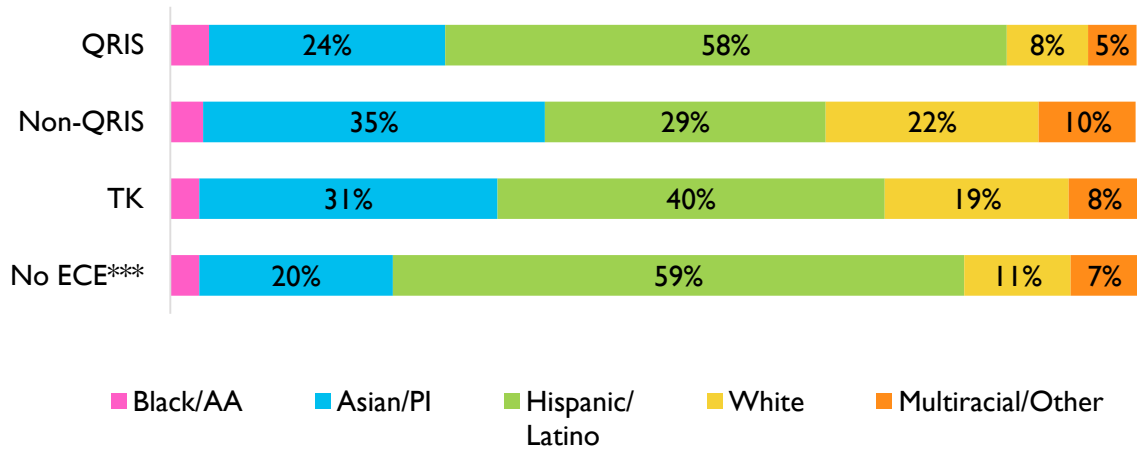
Figure 58. **English Learner and Special Needs Status, by Child Care Arrangement**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,401-1,406. +Marginally significant at p<.10; ***statistically significant at p<.001.

The racial/ethnic makeup of the subsample who attended a QRIS site was also similar to the subsample of children without ECE. Compared to non-QRIS and TK children, children attending a QRIS site and children without ECE were more likely to be Hispanic/Latino and less likely to be Asian/Pacific Islander or white.

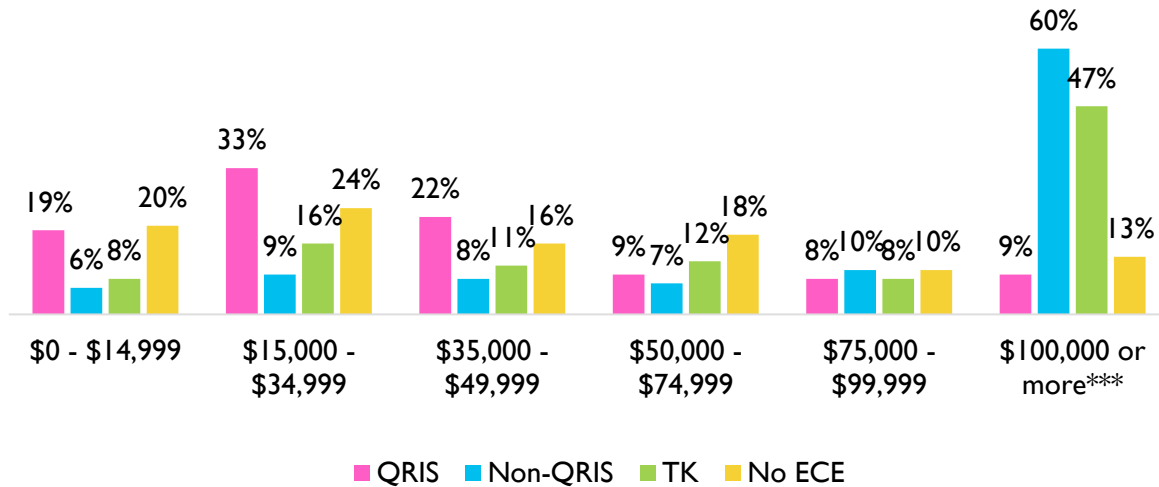
Figure 59. Race/Ethnicity, by Child Care Arrangement



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,404. ***Statistically significant at p<.001. Percentages may not sum to 100 due to rounding. Proportions of less than 5% are not labeled.

The family income and maternal education of the QRIS children were also similar to those of the children without ECE. Children attending a QRIS site and children without ECE were more likely than children in a non-QRIS site and TK to come from families earning under \$35,000 and less likely to come from families earning \$100,000 or more.

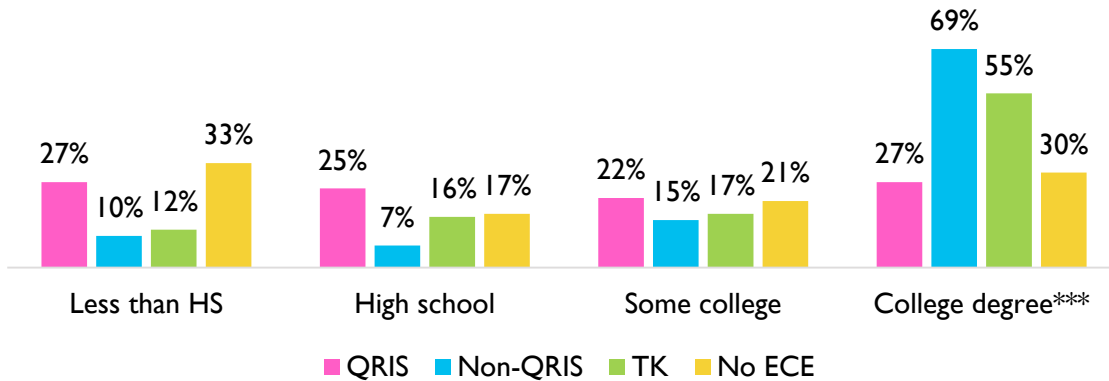
Figure 60. Family Income, by Child Care Arrangement



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,284. ***Statistically significant at p<.001.

Likewise, children in a QRIS site and without ECE experience were more likely to have mothers without a high school diploma and less likely to have mothers with a college degree compared to children in other child care settings.

Figure 61. **Maternal Education, by Child Care Arrangement**

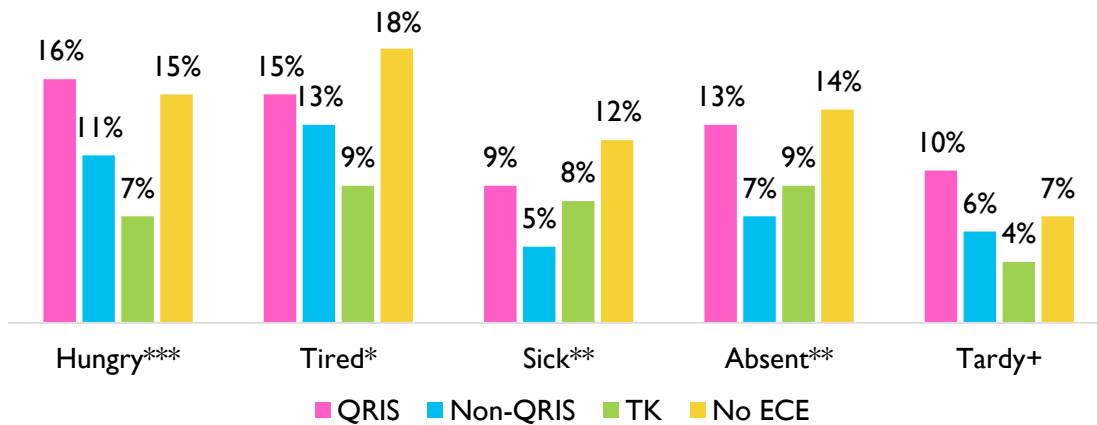


Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,305. ***Statistically significant at p<.001.

Health and Well-Being and Attendance of Children Attending a QRIS Site

Teacher reports of child health and well-being among the subsamples were also compared, after controlling for demographics (gender, age, family income, special needs, and English Learner status). Overall, QRIS children’s well-being was similar to that of children without ECE; these children were more likely to appear hungry, tired, or sick, than children in TK or non-QRIS child care settings. They also were more likely to be frequently absent or tardy than non-QRIS and TK children.

Figure 62. **Child Health & Well-Being & Attendance, by Child Care Arrangement**



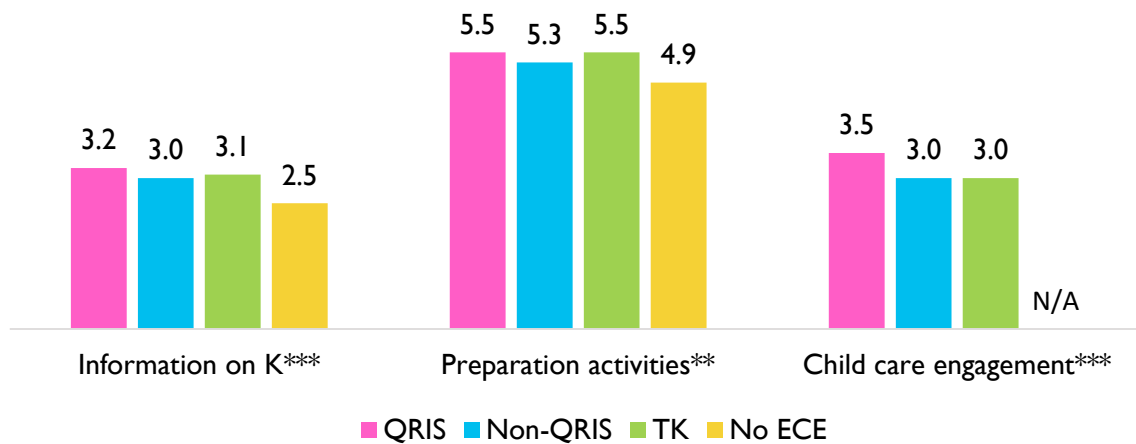
Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,398-1,401. +Marginally significant at p<.10; *statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001. Adjusted for gender, age, race/ethnicity, family SES, special needs, and English Learner status.

Family Activities and Preparation for Kindergarten of Children Attending a QRIS Site

Next, the four groups of children (QRIS, non-QRIS, TK, and no-ECE) were compared on kindergarten preparation and family activities, after controlling for the effects of demographics.

Parents/caregivers of QRIS children engaged in a similar number of kindergarten preparation activities and received a similar amount of information about kindergarten compared to parents/caregivers of non-QRIS and TK children. For example, prior to entering kindergarten, parents/caregivers of children with ECE experience, regardless of type, had received more information about kindergarten than children without ECE. These parents/caregivers also engaged in a greater number of preparation activities compared to parents/caregivers of children without ECE (e.g. attending a parent meeting or orientation, meeting the kindergarten teacher). Finally, compared to parents/caregivers of children in other ECE settings, parents/caregivers of children in a QRIS site were significantly more likely to engage in activities at the child care setting, including attending a parent meeting or orientation, volunteering in the classroom, and asking the child’s childcare provider about kindergarten. This question did not apply to children without ECE.

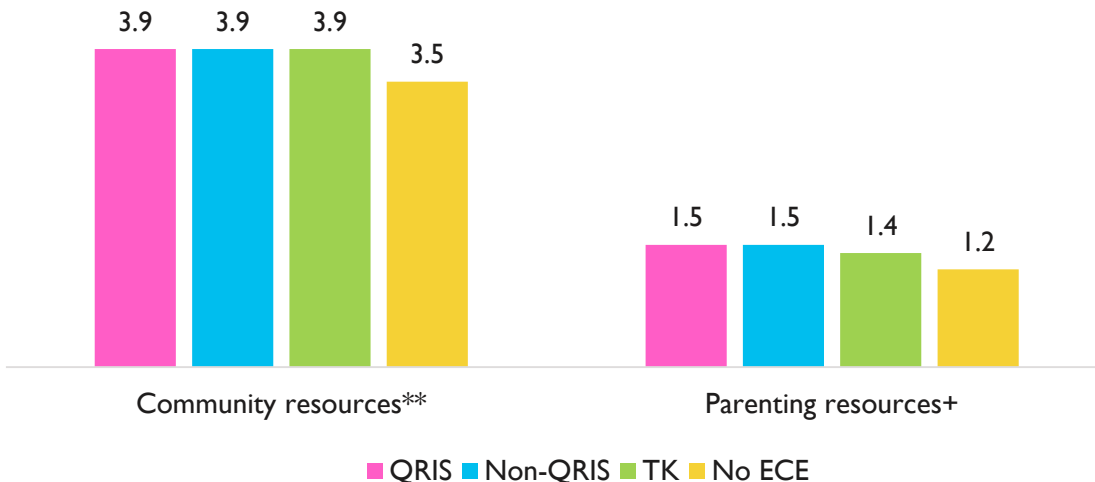
Figure 63. **Kindergarten Preparation and Child Care Engagement, by Child Care Arrangement**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,215-1,223. **Statistically significant at p<.01; ***statistically significant at p<.001. Adjusted for gender, age, race/ethnicity, family SES, special needs, and English Learner status.

Further, parents/caregivers of QRIS children, non-QRIS children, and TK children reported that they had utilized more types of community resources, such as museums and libraries, and parenting resources, such as parent education classes and Family Resource Centers, than parents/caregivers of children without ECE. Interestingly, there was no difference between the groups in the degree to which they engaged in family activities, such as reading.

Figure 64. **Community and Parenting Resource Use, by Child Care Arrangement**



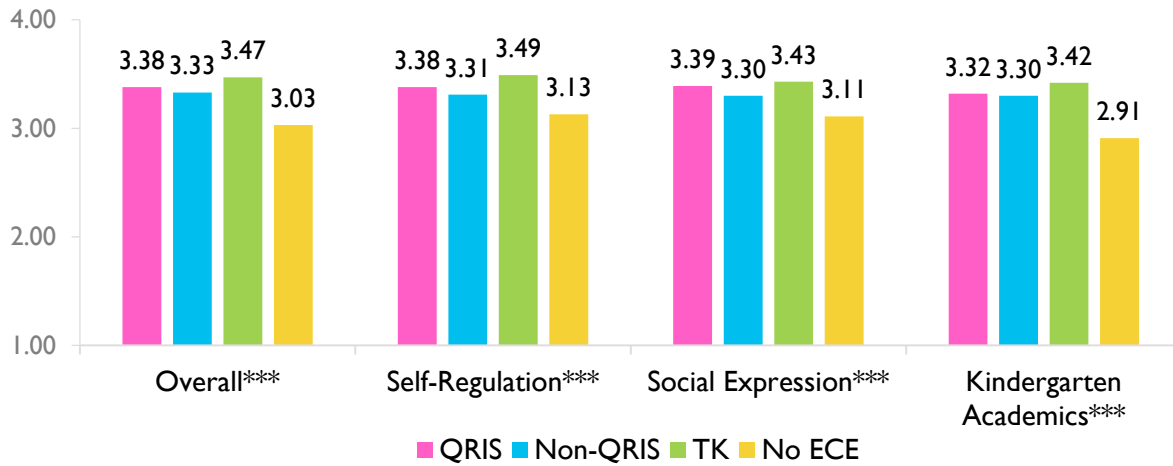
Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 N=1,171-1,237. +Marginally significant at p<.10; **statistically significant at p<.01. Adjusted for gender, age, race/ethnicity, family SES, special needs, and English Learner status.

Kindergarten Readiness of Children Attending a QRIS Site

Finally, the kindergarten readiness scores of QRIS children were compared to those of children without ECE and in other types of child care.¹² As shown in the chart below, QRIS children outperformed children without ECE in all kindergarten readiness domains and their scores were similar to those of non-QRIS and TK children.

¹² In this section, we compare average school readiness scores rather than the percent *Fully Ready* for kindergarten, as there were no significant differences and percent *Fully Ready* based on QRIS ratings and assessment scores, but there were significant differences in average readiness scores as described here.

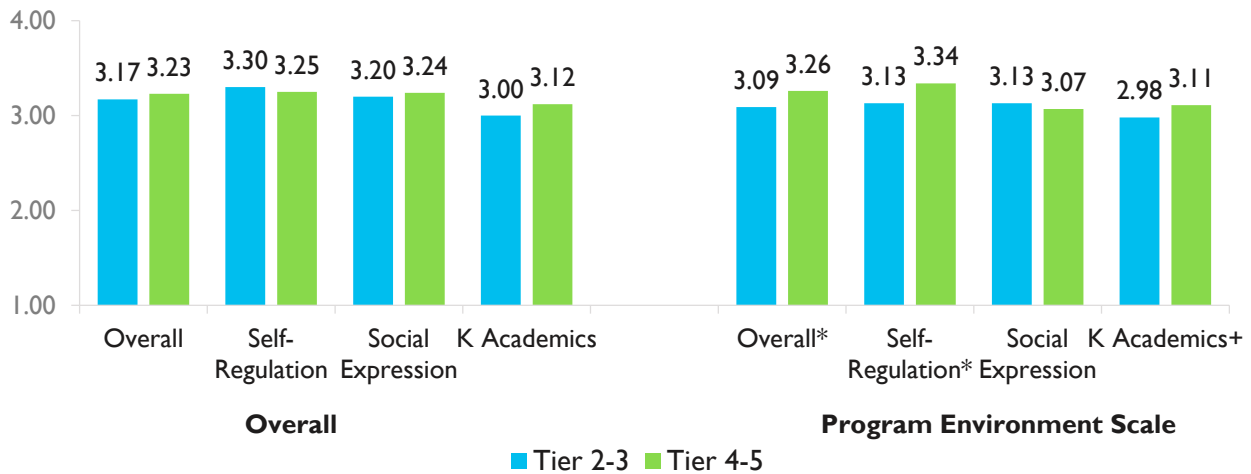
Figure 65. **Kindergarten Readiness Scores, by Child Care Arrangement**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 Note: N=1,200-1,254. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001. Adjusted for gender, age, race/ethnicity, family SES, special needs, and English Learner status.

The relationship between kindergarten readiness and QRIS overall Tier and QRIS element ratings was explored. As shown below, there were no significant differences in readiness scores based on overall Tier ratings. However, children attending sites with a higher Program Environment Scale rating had higher readiness scores than children attending sites with a lower Program Environment Scale rating. These children also had higher Self-Regulation and Kindergarten Academics scores.

Figure 66. **Kindergarten Readiness Scores, by QRIS Tier Rating**

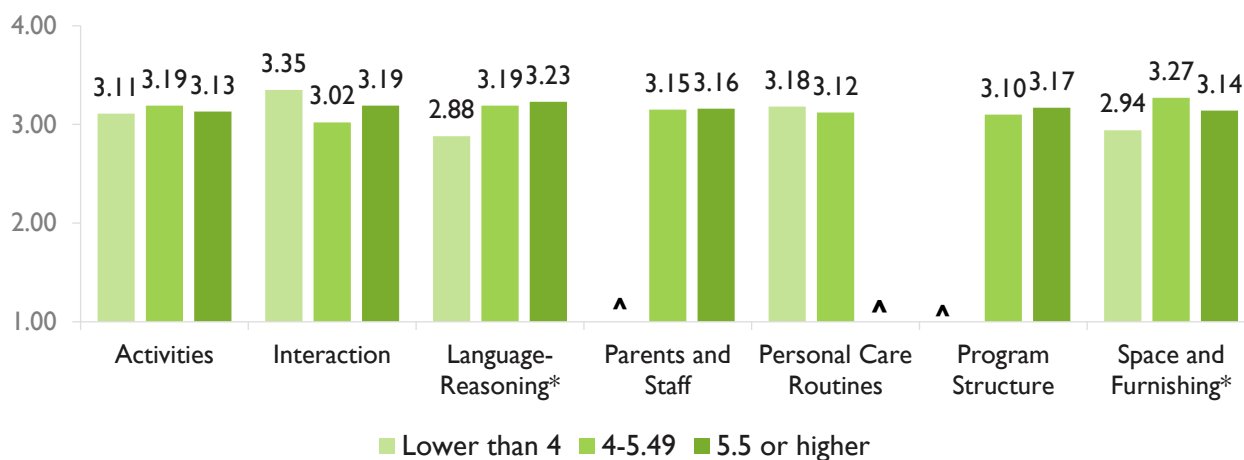


Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)
 Note: N=197-199. +Marginally significant; *statistically significant at p<.05. Adjusted for gender, age, race/ethnicity, family SES, special needs, and English Learner status.

We then examined the relationship between kindergarten readiness scores and scores on the ECERS and CLASS assessments. Overall scores on these two instruments were not significantly related to kindergarten readiness. However, we also analyzed the correlation between the subscale scores on these assessments and kindergarten readiness. Although the CLASS subscales were not associated

with readiness,¹³ several ECERS subscales demonstrated a significant association with readiness scores. Sites with higher Language-Reasoning scores had children with higher readiness scores than sites with lower Language-Reasoning scores. Likewise, sites with Space and Furnishings scores of 4 or higher had children with higher readiness scores than sites with lower Space and Furnishings scores (interestingly, the highest scores were among children attending a site with a score of 4-5.49). Furthermore, Language-Reasoning scores were significantly and positively associated with children's Kindergarten Academics scores and Space and Furnishings scores were positively associated with children's Self-Regulation scores.

Figure 67. Overall Kindergarten Readiness Scores, by ECERS Subscale Score



Source: Kindergarten Observation Form (2017), Parent Information Form (2017), First 5 QRIS database (2017)

Note: N=182. *Statistically significant at $p < .05$. Analyses adjust for gender, age, family income, special needs, and English Learner status. ^Data not shown for score categories with fewer than 10 cases.

Section Summary

- Children who attended a QRIS-rated site and those without ECE tended to be more disadvantaged on socioeconomic and health outcomes than children in other former ECE settings. However, **despite their relative socioeconomic disadvantage, families of QRIS children were similar to the families of children with other types of formal ECE experience** in terms of kindergarten preparation activities and use of parenting and community resources. Accordingly, their children were more ready for kindergarten, compared to children who had similar demographic profiles but did not attend formal ECE. Thus, QRIS appears to be offering a support to vulnerable families that helps bring children's readiness in line with their peers.
- Although there were no significant differences in readiness based on the overall QRIS Tier rating of the sites attended by kindergarten readiness assessment participants, children

¹³ The simple bivariate correlation between CLASS Instructional Support scores and Kindergarten Academics was positive and significant, but the relationship was no longer significant once we controlled for child and family demographics. The correlations between Instructional Support and overall readiness and other domains were not significant.

attending a program with a **higher Program Environment Scale rating had higher readiness** than children attending a program with a lower rating.

- There were no significant differences in readiness based on CLASS scores after controlling for other significant factors related to readiness, but there were some differences based on ECERS subscale scores. Children attending a site with **higher Language-Reasoning and Space and Furnishings scores tend to have higher readiness levels** than children attending sites with lower scores on these subscales. Although additional research with larger samples is needed to validate these findings, they suggest QRIS programs in Alameda County are improving the kindergarten readiness levels of children, particularly if they provide a higher quality environment to the children in their care.

Special Section: Oakland’s Castlemont Neighborhood

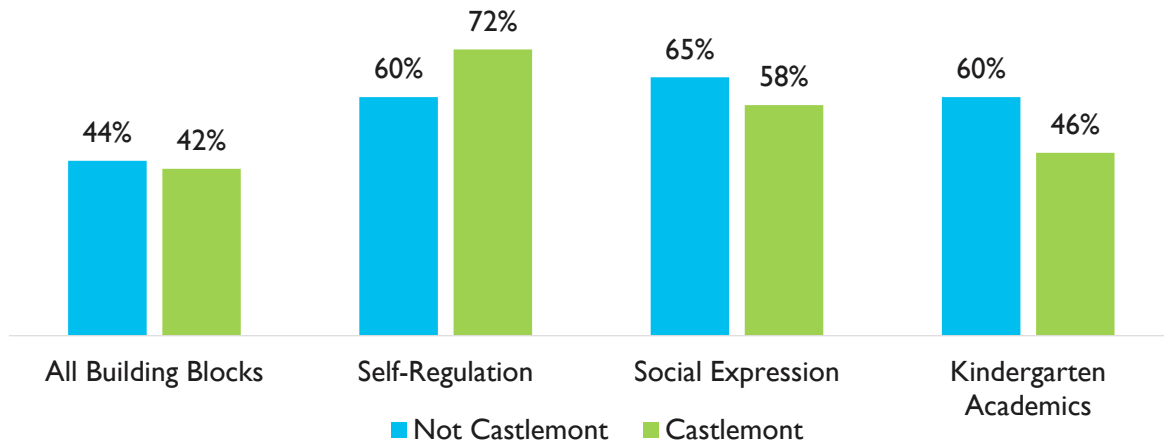
There were 25 children in the Kindergarten Readiness Assessment sample who lived within one mile of Castlemont High School or attended the closest elementary school in the sample (East Oakland Pride) to Castlemont High School. Because of First 5 Alameda’s desire to increase services for families with young children and enhance service coordination in this high-need neighborhood, we explored the child and family characteristics of children in the Castlemont neighborhood compared to children living elsewhere in the county.



Kindergarten Readiness

There were no significant differences in kindergarten readiness levels between children living in Castlemont and children living in other parts of the county. As shown below, approximately 42% of children in Castlemont were *Fully Ready*, compared to 44% of children who lived elsewhere. There were some geographic differences in the percent who were ready on each of the *Building Blocks*, but the differences did not rise to statistical significance.

Figure 68. **Kindergarten Readiness of Children in Castlemont**



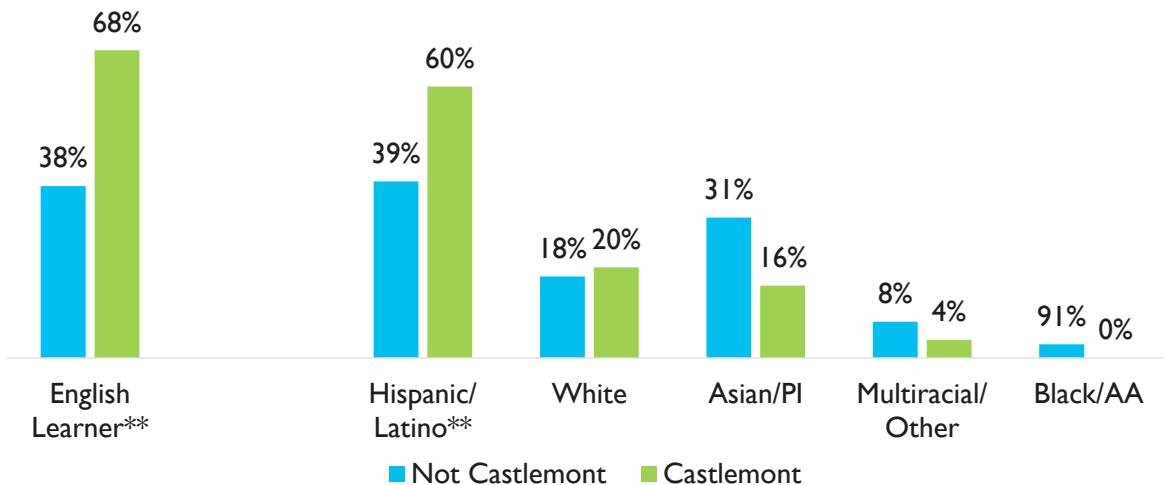
Source: Parent Information Form (2017)
 Note: N=1,367-1,440.

Child and Family Demographics

As shown in the following chart, children in the Castlemont neighborhood were significantly more likely to be English Learners and Hispanic/Latino than children living in other parts of the county.

However, there were no differences between Castlemont children and children from other parts of the county in terms of age, special needs, or gender.

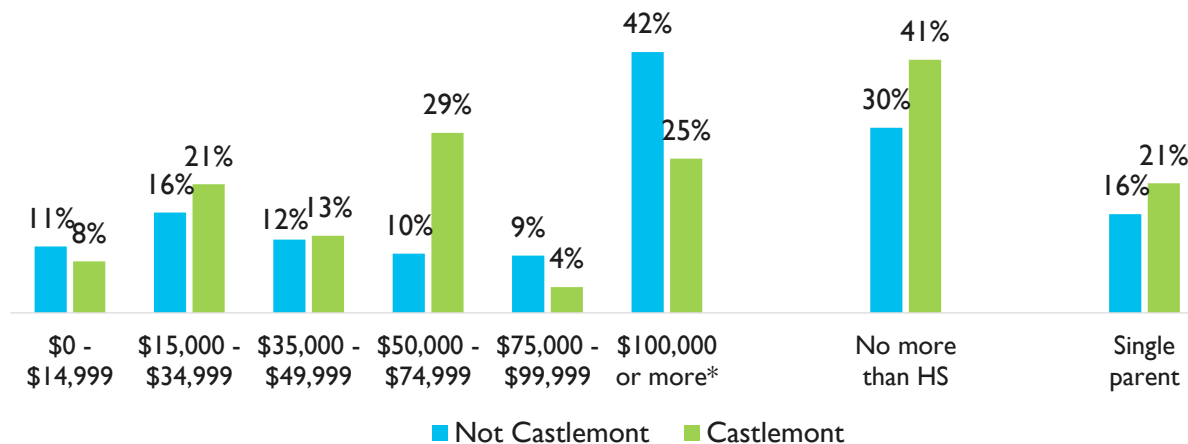
Figure 69. **Demographic Characteristics of Children in Castlemont**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,316-1,444. **Statistically significant at p<.01.

Families in Castlemont were significantly more likely than other families to earn \$50,000-\$74,999 and significantly less likely to earn \$75,000 or more. Differences between the Castlemont families and other families were smaller at the lower income levels. There also were no significant neighborhood differences in maternal education and family structure.

Figure 70. **Demographic Characteristics of Families in Castlemont**

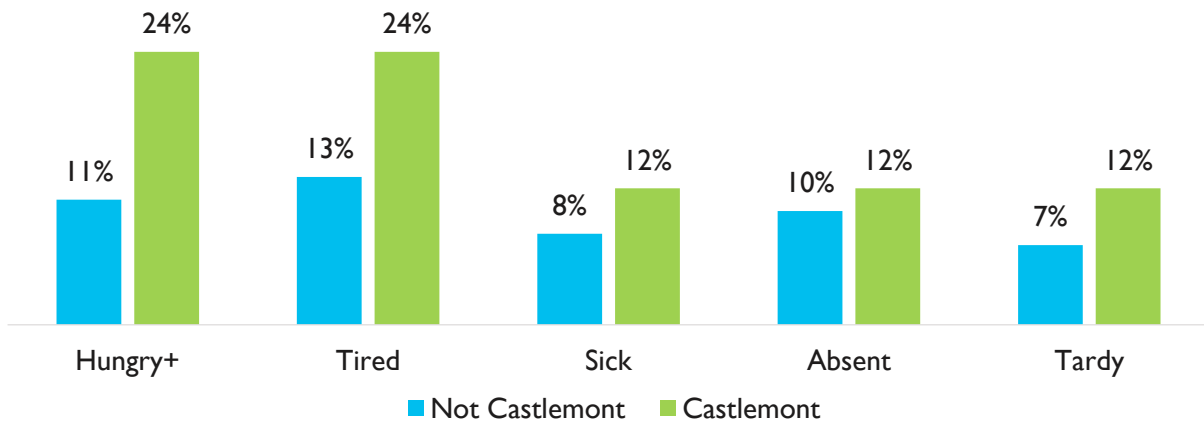


Source: Parent Information Form (2017)
 Note: N=1,297-1,342. *Statistically significant at p<.05.

Health and Well-Being and Attendance

Teacher ratings of child health and well-being and school attendance of Castlemont children were also compared to the ratings of children living in other parts of the county. Although a higher proportion of Castlemont children exhibited well-being and attendance concerns on at least some days, only the difference in the percent who appeared hungry approached statistical significance. There were no differences between Castlemont children and other children in access to health care and dental problems.

Figure 71. **Health and Well-Being and Attendance of Children in Castlemont**

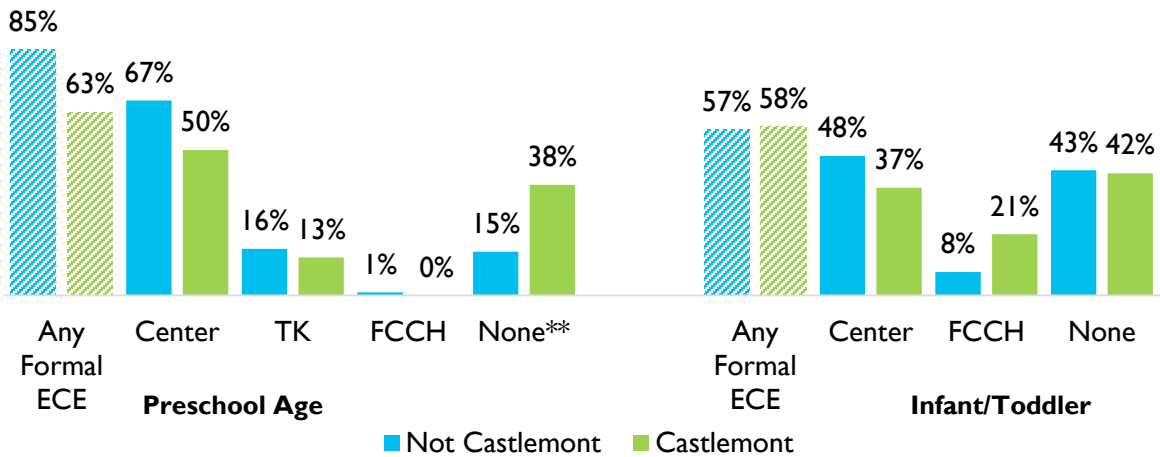


Source: Kindergarten Observation Form (2017), Parent Information Form (2017).
 Note: N=1,436-1,437. +Marginally significant at $p < .10$.

Early Childhood Education Experiences

As shown in the following chart, there were significant differences in the proportion of children in Castlemont who attended formal licensed child care or Transitional Kindergarten in the year prior to kindergarten compared to the proportion of children not living in Castlemont who had these early childhood education (ECE) experiences. In the year prior to kindergarten, 63% of children in Castlemont attended formal ECE, while 85% of children in other parts of the county had formal ECE experience. This disparity was primarily driven by differences in participation in licensed center-based care. In contrast, the percent who had attended formal ECE in the infant/toddler years did not differ between Castlemont children and children living elsewhere in the county.

Figure 72. **Early Childhood Education Experiences of Children in Castlemont**

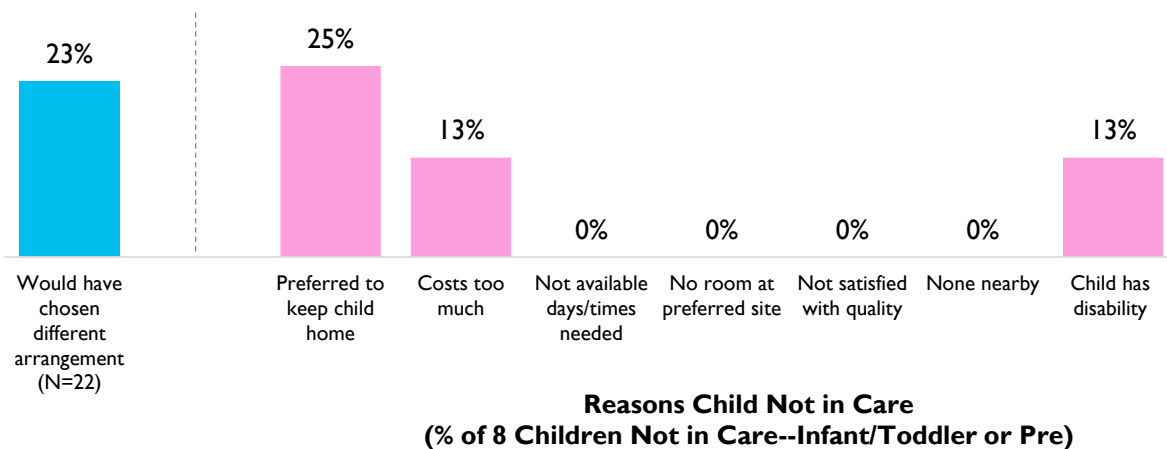


Source: Kindergarten Observation Form (2017), Parent Information Form (2017)
 Note: N=1,168-1,402. **Statistically significant at p<.01.

Twenty-two families in Castlemont responded to the question on the parent survey about whether they would have chosen a different child care arrangement if they could have afforded it. Five of these families (23%) responded that they would have chosen a different arrangement; this is not significantly different from the percent in the full sample (28%) who would have chosen a different arrangement.

There were eight children in Castlemont who had not attended child care in the infant/toddler or preschool years and had a parent/caregiver who responded to questions on the parent survey regarding reasons for not attending child care. Four of these families said that they preferred to keep their child at home, one family said that child care cost too much, and one said their child has a disability. There were too few families in Castlemont who responded to these questions to make a comparison to the full sample.

Figure 73. **Child Care Preferences Reported by Families in Castlemont**

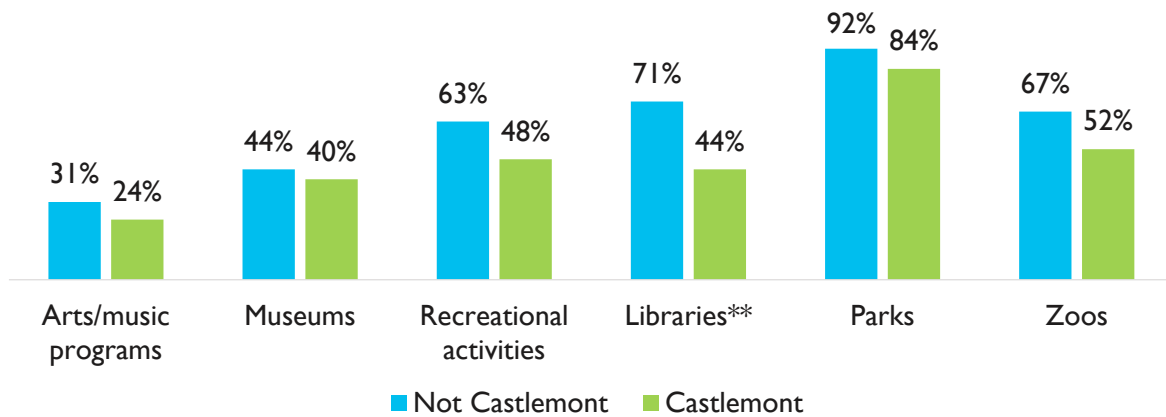


Source: Parent Information Form (2017).
 Note: N=8-22.

Resource and Service Use

We also examined neighborhood-based differences in parent/caregiver engagement in family activities, kindergarten preparation, and use of community resources. Although there were no differences in family activity engagement (e.g., reading, telling stories/singing songs, or doing arts and crafts) or kindergarten preparation (e.g., working on school skills with the child, attended a parent meeting or orientation, or receiving information about kindergarten), parents/caregivers in Castlemont were significantly less likely to report taking their children to the library than parents/caregivers in other neighborhoods.

Figure 74. **Community Resources Used by Families in Castlemont**

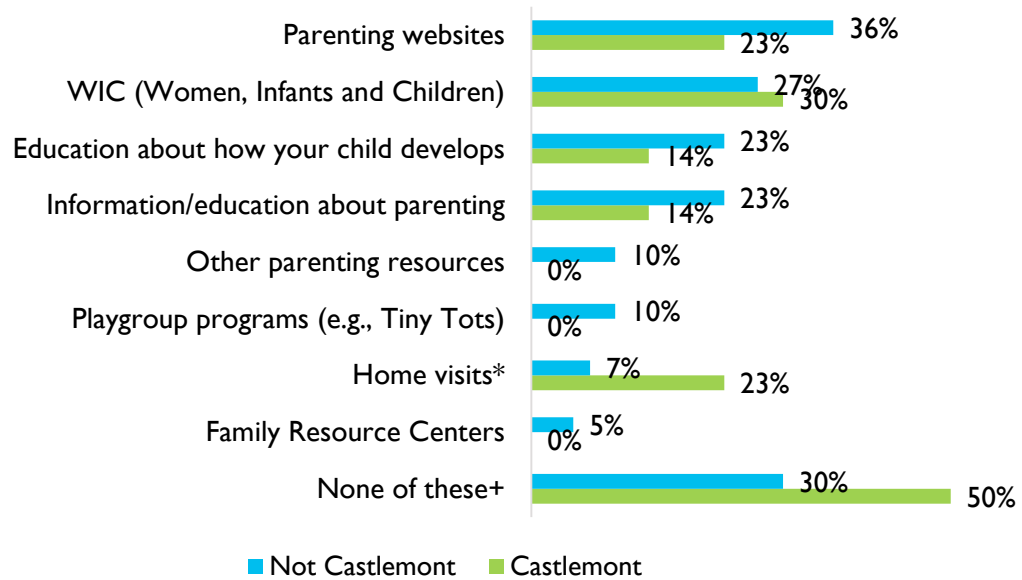


Source: Parent Information Form (2017)

Note: N=1,372. **Statistically significant at $p < .01$.

In terms of parenting resources utilized, Castlemont families were more likely to report receiving home visits than other families. However, they also were more likely to report using none of the listed parenting resources compared to families living elsewhere in the county.

Figure 75. **Parenting Resources Used by Families in Castlemont**



Source: Parent Information Form (2017)
 Note: N=1,259. +Marginally significant; *statistically significant at p<.05.

Parenting and Family Stress

Responses of parents/caregivers in Castlemont to questions about parenting stress were also compared to reports of parenting stress among parents/caregivers in other parts of the county. There were statistically significant differences between Castlemont parents/caregivers and other parents/caregivers in responses to two of these questions: “your child does things that really bother you a lot” and “your child is much harder to care for than most children.” Castlemont parents/caregivers were significantly more likely to agree with these statements than other parents/caregivers.

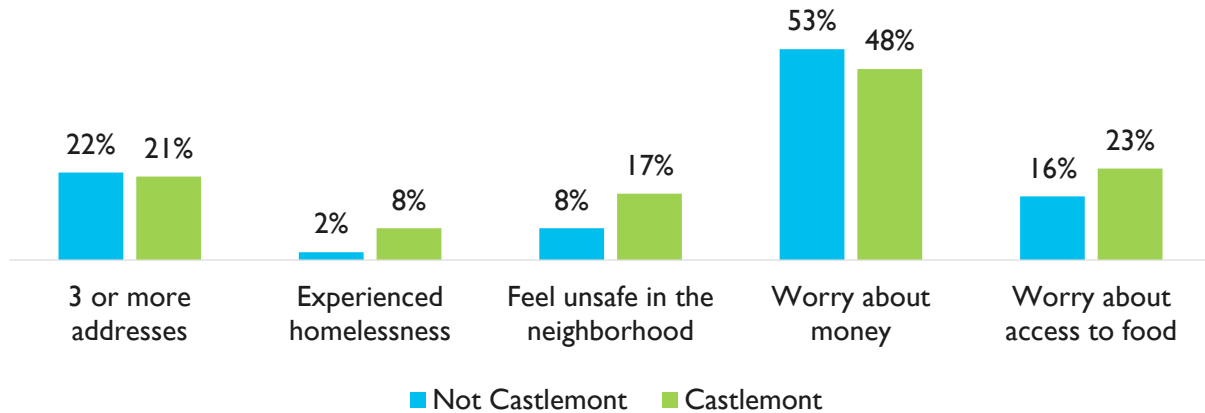
Figure 76. **Parenting Stress Reported by Families in Castlemont**



Source: Parent Information Form (2017)
 Note: N=1,282-1,301. **Statistically significant at p<.01; ***statistically significant at p<.001.

In contrast, there were no significant differences between Castlemont families and families from other parts of the county in experiences of safety, housing, and basic needs concerns. The differences in housing mobility, homelessness, neighborhood safety, and concerns about basic needs, did not rise to the level of statistical significance.

Figure 77. **Safety, Housing, and Basic Needs in Castlemont**



Source: Parent Information Form (2017)
Note: N=1,276-1,331.

Section Summary

- There were **no significant differences in the readiness levels** of children living in Castlemont compared to children living in other parts of the county.
- Children in Castlemont were **more likely to be English Learners and Hispanic/Latino**, and their families were **less likely to earn \$75,000 or more** than other children in the sample.
- Castlemont children were somewhat **more likely to appear hungry** according to their teachers, but geographic differences in health and well-being concerns were not statistically significant.
- **Formal ECE experience was significantly less common** among children in Castlemont compared to the children in other parts of the county. About one-quarter of families in Castlemont said they would've chosen a different child care arrangement if they could have afforded it.
- Castlemont families did not significantly differ from other families in terms of housing, neighborhood, and family stressors, but they were **less likely to use libraries**, more likely to report that they **did not use any parenting resources**, and more likely to report **high levels of parenting stress**.

Conclusions and Discussion

The results of the 2017 Alameda County kindergarten readiness assessment largely parallel those of the 2015 study. As in 2015, this study underscores the importance of achieving optimal health and development, having supportive families, and engagement in enriching activities inside and outside the home (e.g., attending formal ECE, using community resources, and having regular reading routines) in order to enter school socially, emotionally, and academically ready to learn. Below, we review the key study findings and examine ways that future interventions can help us address disparities in readiness.

Key Findings

Forty-four percent of children were *Fully Ready* for kindergarten

After weighting the sample to be representative of the county's kindergarten population, 44% of students in the county were considered **Fully Ready** for school. This benchmark indicates readiness scores that were at or near proficiency in the areas of *Self-Regulation*, *Social Expression*, and *Kindergarten Academics*. An additional 35% of students were considered **Partially Ready** by demonstrating readiness in one or two of the key areas, while 21% were considered **Not Ready** by falling below the benchmark in all areas. These readiness levels were similar to those found in 2015, likely because they were minimal changes in the sample characteristics over this time period. Readiness levels were higher in Albany, Berkeley, and Fremont, and lower in several neighborhoods in Oakland and Hayward, as well as a few neighborhoods in Pleasanton and Livermore.

Major predictors of readiness: Preschool, licensed family care, or TK attendance; child well-being; special needs; family's socioeconomic status; age; English fluency; gender; use of community resources; parenting stress; and reading with children.

Children who were ready for school were more likely to be healthy, well-rested, and well-fed when they went to school; from relatively affluent and educated families; to be female; to have attended a preschool, licensed family care, or Transitional Kindergarten (TK) in the prior year; to be fluent in English; to be typically developing; and to be older than their peers. These findings are similar to those of prior Alameda County readiness studies, as well as other research on factors related to kindergarten readiness. For example, kindergarten-aged girls tend to have better language and reading skills than boys, as well as the social skills and classroom behavior more conducive to success in kindergarten (Tach & Farkas, 2006; Zill & West, 2001) and later grades (Bettencourt, Gross, & Ho, 2016). There is also extensive evidence that children from families with higher socioeconomic status and greater access to preschool and child care options tend to be better prepared for kindergarten entry than their peers (Crosnoe & Cooper, 2010; Entwisle, Alexander, & Olson, 2005; Isaacs, 2012).

Greater participation in TK may also improve readiness in the county, particularly among more vulnerable children. In the 2017 study, 16% of kindergarten students were reported by their teachers or parents/caregivers as having attended TK in the prior year, quadruple that of the 2013 sample, when 4% of children were reported as former TK students. The current body of research, including the current study, suggests the positive impact of TK on readiness is as great or greater than the impact of preschool (Manship et al., 2017). The effect of TK on readiness in this study was

particularly great for children from low SES families and children who were not read to on a daily basis.

ECE dosage and quality also appeared to have an impact on readiness. Children had higher readiness if they attended ECE as both an infant/toddler and preschooler and if they attended for at least 20 hours per week. This finding is in line with other research showing that the number of hours per week a child attends preschool has a significant and positive association with kindergarten readiness (Reynolds et al., 2014). In addition, children enrolled in sites participating in Alameda County's quality improvement program (QRIS) had similar readiness and family engagement levels to children with other ECE experiences, despite coming from more disadvantaged backgrounds. The findings suggest that QRIS is offering a support to child care sites and the families they serve that helps bring vulnerable children's readiness in line with their peers.

As in previous assessments, child health and well-being stood out as one of the strongest predictors of readiness. Children who came to school healthy, well-rested, and well-fed had higher readiness scores than those who did not. The results from the current study support research that has found that a child's health significantly contributes to kindergarten readiness (Currie, 2005). This research suggests that children must have their basic health needs met before they can begin to develop social, emotional, and academic skills.

In addition, we found that children had higher readiness levels if their families utilized more community resources, like parks, libraries, and museums; if their parents/caregivers reported lower levels of parenting stress; and if their families read to them on a daily basis. Families who utilized more resources (particularly those families in which fathers and mothers were both engaged) may have also provided other enriching experiences to their children, whereas parents/caregivers with higher levels of stress may have been overwhelmed by the challenges of parenting and therefore found it difficult to concentrate on helping the child prepare for kindergarten. Finally, regular reading with the child may improve kindergarten readiness because this activity has recently been shown to activate parts of the brain associated with complex language, executive functioning, and socioemotional processing (Hutton et al., 2017).

The effects of these predictors of readiness are cumulative and can help close readiness gaps among children. Exposing vulnerable children to enriching and supportive environments will improve the likelihood that they are ready for kindergarten.

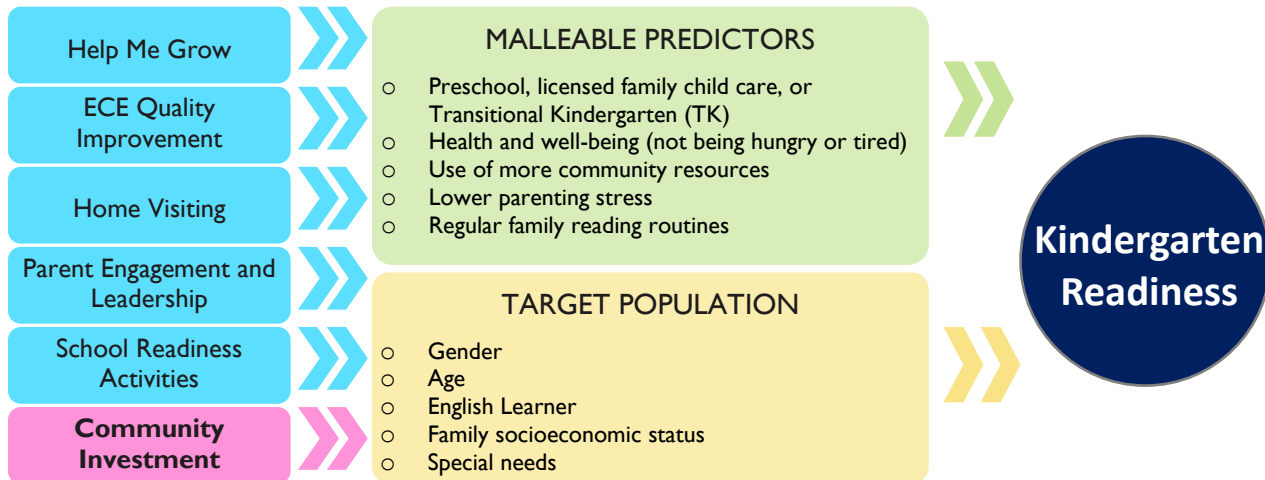
How Do We “Turn the Curve”?

The findings from the current study point to several strategies that First 5 Alameda County and its partners throughout the community can undertake to help improve the readiness of the county's children.

Align interventions and policy initiatives with significant predictors of readiness

Current First 5 Alameda County investment strategies address many of the predictors of readiness, by improving the quality of children's early experiences. For example, Help Me Grow and home visitation promote early identification and intervention for children at risk for or who have special needs, as well as improve children's health and well-being. Additionally, First 5's investment in early childhood education quality can enhance an intervention that is consistently one of the strongest predictors of readiness, particularly for disadvantaged children. Furthermore, First 5's parent

engagement and leadership programs and kindergarten readiness activities can help families promote their children’s readiness, by connecting them to community resources, providing them supports to decrease parenting stress, and encouraging enriching family activities, like reading with the child. Finally, the findings from this study’s geographic analysis of readiness and child and family outcomes will help inform targeted, place-based investments in Alameda County’s high need communities.



These efforts play an important role in helping children be ready for school, but improving readiness in the county will also require investments from First 5 partners throughout the community. Providers in all sectors serving children and their families – including health, education, and social services – should work together to improve the early childhood experiences of children in Alameda County, so that all have the opportunity to enter school ready to learn. Likewise, public policy initiatives should address child and family disadvantages associated with low readiness. These may include policies that increase basic needs support for low income families (e.g., subsidized housing or income support) and increase access to free or subsidized early childhood education, particularly for middle income families who do not currently qualify for child care subsidies, but find the costs of child care prohibitive. The kindergarten readiness of Alameda County’s children will only improve when educators, service providers, and policymakers throughout the community dedicate themselves to improving opportunities and outcomes for young children and their families.



About the Researcher

ASR is a social research firm dedicated to helping people build better communities by creating meaningful evaluative and assessment data, facilitating information-based planning, and developing custom strategies. The firm has more than 30 years of experience working with public and private agencies, health and human service organizations, city and county offices, school districts, institutions of higher learning, and charitable foundations. Through community assessments, program evaluations, and related studies, ASR provides the information that communities need for effective strategic planning and community interventions.

For questions about this report, please contact:

Applied Survey Research

Lisa Colvig-Niclai, MA, Vice President of Evaluation

Christina Branom, MSW, Ph.D., Project Manager

Nayeli Bernal, MPH, Senior Research Analyst

San Jose Office

408.247.8319

www.appliedsurveyresearch.org

Appendix: KOF and PIF

Kindergarten Observation Form 2017

ALAMEDA COUNTY

Class # Child #
 (Office use only)



1. Child's start date of instruction: Month Day Year

2. Child's initials: First Middle Last
 (e.g., Maria Ines Chavez Lopez: First [M] Middle [I] Last [C][L])

3. Child's sex: Male Female Other: _____

4. Child's date of birth: Month Day Year

5. First name of child's mother (if applicable): _____

6. Is this child currently a Transitional Kindergarten (TK) student? Yes No

7. Is this child repeating kindergarten (not TK) this year? Yes No

8. In the 12 months prior to the school year, did the child participate in any of the following?

a. Transitional kindergarten	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available
b. Short-term summer pre-K program (e.g., Summer Bridge, Kinder Camp)	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available
c. Preschool or licensed child care	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available
9. If yes, what type of program was it?			
a. Head Start?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available
b. Other licensed child care center?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available
c. Licensed family child care home?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Information not available

10. Since the start of school, how frequently did the following occur?

	Rarely or almost never (1x every few wks)	On some days (1x/wk)	On most days (2-3x/wk)	Just about every day (4-5x/wk)
a. Child indicated he/she was hungry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Child appeared tired in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Child was sick	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Child was absent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Child was tardy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Child complained of a tooth ache or mouth pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11a. Did this child enter kindergarten with a designated Special Needs Status or an IEP?
 Yes No Information not available

11b. If no or information is not available, do you believe he/she has a special need?
 Yes No

12. What is this child's primary race/ethnicity? (Please mark all that apply.)

- Hispanic / Latino (e.g., Mexican, Puerto Rican, Cuban, Salvadorian, Dominican)
- Native Hawaiian / Pacific Islander
- Asian (e.g., Chinese, Japanese, Korean, Vietnamese, Indian, Pakistani)
- Black / African American
- Alaskan Native or American Indian
- White
- Filipino
- Arab / Middle Eastern (e.g., Armenian, Iranian, Israeli, Egyptian, Lebanese)
- Other _____
- Don't know

13. What is the child's preferred language? (Please mark all that apply.)

- English
- Spanish
- Tagalog or other Filipino language
- Chinese/Mandarin/Cantonese
- Farsi/Dari/Persian
- Vietnamese
- Punjabi or Hindi
- Other: _____
- Don't know

14. Is this child an English Learner?
 Yes No Information not available

If the child is an English Learner or you are not sure, please answer Q15 - 18 below. Otherwise, please turn the sheet over to continue.

15. How would you rate this child's skills in understanding English? (receptive language skills)

Beginning Early Intermediate Intermediate Early Advanced Advanced

16. How would you rate this child's skills in speaking English? (expressive language skills)

Beginning Early Intermediate Intermediate Early Advanced Advanced

17. Do you have any difficulty communicating with the child due to language differences?
 Yes No

18. Will this child be assessed in his/her preferred language by you or a bilingual aide?
 Yes No

Kindergarten Observation Form

Please refer to the Scoring Guide for instructions on how to rate each of these readiness skills.

(Office use only)



For each skill, assign one of four levels of competency:

- Not Yet: Does not demonstrate skill yet. Cannot perform without adult assistance.
- Beginning: Just beginning to demonstrate skill. Needs significant or frequent adult assistance.
- In Progress: Demonstrates skill occasionally and somewhat competently. Needs minor/occasional adult assistance.
- Proficient: Demonstrates consistently and competently. Performs independently.

TEACHERS PLEASE COMPLETE:

19. Date assessment completed: Month Day

20. Teacher's initials: First Middle Last

▶ = Language-dependent item, which involves oral communication in the classroom. If you feel you cannot provide an accurate assessment of these or any other items, please indicate "Don't know/Not observed."

	NOT YET	BEGINNING	IN PROGRESS	PROFICIENT	Don't know/ Not observed
21. Uses a pencil with proper grip (<i>pincer or tripod grip toward tip of pencil</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Has general coordination (<i>e.g., kicks or catches a ball, runs smoothly</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Stays focused during individual and small group activities (<i>for duration of an activity</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Follows class rules and routines (<i>e.g., lines up when it is time, raises hand</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 25. Follows two-step directions (<i>e.g., "Please hang up your jacket, and go sit on the rug."</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Works and plays cooperatively with peers (<i>e.g., takes turns and shares, helps others</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Participates successfully in large group activities (<i>e.g., circle time</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Handles frustration well (<i>e.g., does not become unresponsive</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 29. Appropriately expresses needs and wants verbally in primary language (<i>at appropriate times and without disruption to class</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Expresses empathy or caring for others (<i>e.g., consoles or comforts a friend who is crying, able to identify other feelings</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 31. Tells about a story or experience (<i>in response to one or more prompts</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 32. Demonstrates curiosity and eagerness for learning (<i>e.g., tries new activities, asks questions</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 33. Answers questions about key details in literature (<i>answers who?, what?, where? questions</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Understands structure and basic features of books (<i>holds upright, follows text left to right, turns pages</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Writes own first name (<i>writes all letters correctly and facing the right direction regardless of case</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 36. Recognizes rhyming words (<i>can say whether two specific words rhyme or not</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 37. Counts up to 20 objects (<i>correctly counts 3 sets containing 5, 10 and 20 objects</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 38. Recognizes all letters of the alphabet (<i>can point to a letter named when presented out of sequence</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 39. Recognizes all numbers 0-10 (<i>can point to a number named when presented out of sequence</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
▶ 40. Recognizes primary shapes (<i>can point to a circle, triangle, square and rectangle</i>)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ALAMEDA COUNTY

DO NOT FOLD FORM

Class #	Child #	Form ID #
1	1	30000

3421018234

Parent Information Form 2017

This survey asks you questions about your son or daughter who just started kindergarten.
To thank you for your time, your child's teacher will give your child a new book to keep.
 When finished, please place this form in the envelope provided and seal it. Return the sealed envelope to your child's teacher.

IMPORTANT: Please mark circles like this => ●

1. What are your child's initials? First _____ Middle _____ Last _____ Example: Name: **Monica Patricia Morales Lopez**
 Initials: First: M Middle: P Last: ML

This survey is confidential – please do not write your child's name!

2. What is your child's birth date? Month _____ Day _____ Year _____

3. Is this child a boy or a girl? Boy Girl Other: _____

4. In the last 12 months, what kinds of regular childcare/preschool experiences did your child have?
 Please write in the name of the program or school and the address. (Please mark all that apply.)

	Yes	Full Name of child care provider/program	Address of child care provider/program
4a. Transitional Kindergarten	<input type="radio"/>		
4b. Head Start or other free/low cost preschool	<input type="radio"/>		
4c. Other licensed preschool or child care center	<input type="radio"/>		
4d. Licensed family child care home	<input type="radio"/>		
4e. Short-term summer pre-k program	<input type="radio"/>		
4f. Other	<input type="radio"/>		
4g. Family/friend/neighbor	<input type="radio"/>		
4h. At home with parent	<input type="radio"/>		

If your child participated in preschool or child care in the last 12 months, please answer the following questions:

5. In the last 12 months, how many different preschools, child care centers, or family child care homes did your child attend?

- 1 2 3 4 5 or more N/A (child did not attend child care/preschool)

6. In the last 12 months, approximately how many hours per week did your child spend in child care/preschool in a typical week?

- Less than 10 hrs 11-20 hrs 21-30 hrs 31-40 hrs 41 hrs or more N/A (child did not attend child care/preschool)

7. Which of these things did you or another family member do at your child's child care/preschool? (Please mark all that apply.)

- Attended a parent meeting at child care/preschool
 Attended a school event or activity at child care/preschool
 Volunteered in the classroom at child care/preschool
 Asked child's child care/preschool provider questions about kindergarten
 Asked child's child care/preschool provider whether child was ready for kindergarten
 Other: _____
 None of these

For Office use only:	1a.	<input type="text"/>	<input type="text"/>	<input type="text"/>	2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	Cl	<input type="text"/>	<input type="text"/>	<input type="text"/>	Ki	<input type="text"/>	<input type="text"/>	Fo	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	-----	----------------------	----------------------	----------------------	----	----------------------	----------------------	----------------------	----	----------------------	----------------------	----------------------	----	----------------------	----------------------	----	----------------------	----------------------	----------------------	----------------------

(Office use)

30000 8050018237

8. Please mark which of the following regular child care/preschool experiences your child had as an **infant or toddler**. Please write in the name of the program or school. *(Please mark all that apply.)*

	Infant (<18 mo)	Toddler (18-35 mo)	Full Name of child care provider/program
8a. Head Start/Early Head Start or other free/low cost preschool	<input type="radio"/>	<input type="radio"/>	
8b. Other licensed preschool or child care center	<input type="radio"/>	<input type="radio"/>	
8c. Licensed family child care home	<input type="radio"/>	<input type="radio"/>	
8d. Other	<input type="radio"/>	<input type="radio"/>	
8e. Family/friend/neighbor	<input type="radio"/>	<input type="radio"/>	
8f. At home with parent	<input type="radio"/>	<input type="radio"/>	

9. If you could have afforded it, would you have chosen a different child care/preschool arrangement for your child than the one you chose?

Yes No

10. If your child did not attend child care/preschool, what were the reason(s)? *(Please mark all that apply.)*

- Child care costs too much
- Care wasn't available on days or at times we needed it
- No child care centers or homes nearby
- Preferred to keep child home with parent or family/friend/neighbor
- No room for my child at our preferred child care site
- Child has a disability or special health care need
- Not satisfied with quality of available care
- Other: _____
- None of these

11. Did you get the following kinds of information prior to your child entering kindergarten?

- 11a. General information about the skills all children need for kindergarten Yes No
- 11b. Specific information about how you could help your child develop the skills to be ready for kindergarten Yes No
- 11c. Specific information about how ready your child was for kindergarten Yes No
- 11d. Information about how and when to register your child for school Yes No

We are interested in learning more about the participation of the different family members in activities that support the child's development. For questions 12-14, please indicate which family member(s) participated in each activity.

12. In the last 12 months, which of the following things did you or another family member do to help your child prepare for kindergarten? *(Please mark all that apply.)*

	Mother(s)	Father(s)	Other(s)
12a. Attended a parent meeting or orientation at the elementary school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12b. Visited the elementary school with your child	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12c. Met your child's kindergarten teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12d. Worked with your child on school skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12e. Read books or watched videos about kindergarten with your child	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12f. Read books or articles about your child's transition to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12g. Provided opportunities for your child to play with other children in small groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12h. Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12i. None of these	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Office use)

30000

9014018238

13. In the last 12 months, what types of local community resources have you or another family member used with your child? Please indicate which family member(s) used each resource. (Please mark all that apply.)

	Mother(s)	Father(s)	Other(s)		Mother(s)	Father(s)	Other(s)
13a. Arts/music programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13e. Zoos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13b. Museums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13f. Recreational activities, camps, or sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13c. Libraries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13g. Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13d. Parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	13h. None of these	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. In a typical week, how often do you or any other family member do the following things with your child? (Please write the number of days between 0 and 7 in each space below and which family member(s) participated in each activity.)

		Mother(s)	Father(s)	Other(s)
14a. Read for more than five minutes	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14b. Tell stories or sing songs	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14c. Household chores or pet care	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14d. Play games or do puzzles	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14e. Do arts or crafts	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14f. Play a sport or exercise	About _____ days per week	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. What time does your child usually go to bed on a week night? (Please mark only one response)

- Before 8pm 8pm 8:30pm 9pm 9:30pm 10pm 10:30pm 11pm After 11pm

16. About how many total hours a day does your child watch television, play video games, or watch videos or play games on a cellphone, tablet, or computer? (Please write a number in each space.)

16a. On a typical weekday: About ___ hours and ___ minutes per day

16b. On a typical Saturday or Sunday: About ___ hours and ___ minutes per day

17. What kinds of services have you received to support you in parenting?? (Please mark all that apply.)

- | | |
|---|---|
| <input type="radio"/> Home visits from a nurse, community worker, or other provider | <input type="radio"/> Information and/or education about good parenting practices |
| <input type="radio"/> Family Resource Centers | <input type="radio"/> Education about how your child develops |
| <input type="radio"/> Playgroup programs (e.g., Tiny Tots) | <input type="radio"/> Parenting websites |
| <input type="radio"/> WIC (Women, Infants and Children) | <input type="radio"/> Other parenting resources: _____ |
| | <input type="radio"/> None of these |

18. Please tell us how much you agree or disagree with the following statements.

(Please mark only one response for each statement.)

	Strongly disagree	Disagree	Agree	Strongly agree
18a. I have someone who can watch my child when I need to run an errand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18b. I can find someone to talk to when I need advice about how to raise my child	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18c. I know how to help my child learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18d. I would know where to go for help if my family needed food or housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18e. I would know where to go for help if I had trouble making ends meet (e.g., paying bills, rent)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18f. I would know where to go for help if I needed help finding a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18g. I feel safe in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For Office use only:

14.

16.

(Office use)

30000

19. Thinking about the past month, how much of the time have you felt... (Please mark only one response for each row.)

- | | Rarely | Sometimes | Often | Almost Always |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 19a. Your child is much harder to care for than most children | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19b. Your child does things that really bother you a lot | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19c. You are able to soothe your child when he/she is upset | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

20. In the last 12 months, how concerned have you been about the following things? (Please mark only one response for each issue.)

- | | Not at all | A little | Moderately | Very |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 20a. Health or health care issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20b. Money and paying the bills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20c. Work-related stress | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20d. Problems with your spouse or partner | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20e. Access to food or ability to feed your child/family | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20f. Managing my child's behavior | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

21. When your child was born, did he/she weigh less than 5 pounds 8 ounces (2,500 grams)?

- Yes No Don't know

22. In the past year, has your child received any of the following screenings? (Please mark all that apply.)

- Hearing Vision Developmental (e.g., Ages & Stages Questionnaire) None of these

23. If your child has a special need, please mark all physical or developmental special needs that your child has below:

- | | |
|--|---|
| <input type="radio"/> Speech or language impairment | <input type="radio"/> Attention Deficit and/or Hyperactivity Disorder – ADD or ADHD |
| <input type="radio"/> Autism | <input type="radio"/> Visual or hearing impairment |
| <input type="radio"/> Emotional/behavior disorder or 'disturbance' | <input type="radio"/> Other special need/impairment: _____ |
| | <input type="radio"/> NONE |

If you marked any physical or developmental special needs above, please answer these two questions:

- | |
|---|
| <p>24. How did you learn that your child has special need(s)? (Please mark only one response.)</p> <p><input type="radio"/> Professional diagnosis / assessment (e.g., by a doctor) <input type="radio"/> Your own diagnosis / assessment</p> <p>25. Has your child received professional help for any special need (e.g., help from a pediatrician, school professional, therapist, regional center services)?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> |
|---|

26. Does your child have a regular doctor, pediatric provider or clinic? Yes No

27. Does your child have a regular dentist? Yes No

28. In the last 12 months, has your child had a dental exam? Yes No

29. How many cavities has your child ever had? None 1-2 3-4 5+ Don't know

30. Has your child ever complained of mouth ache or toothache? Yes No

31. What type of health insurance does your child have? (Please mark all that apply.)

- No insurance Medi-Cal Covered California Insurance from parent's employer

30000

1148018238

32. What is your child's ethnicity? (Please mark all that apply.)

- Hispanic/Latino
- White
- Black/African American
- Alaskan Native/American Indian
- Filipino
- East Asian (Japanese, Korean, Chinese)
- Native Hawaiian/Pacific Islander(Samoan, Tongan)
- Other South East Asian (Vietnamese, Cambodian)
- South Asian (Indian, Pakistani)
- Arab/Middle Eastern
- Other: _____

33. What is the language your child hears MOST often at home? (Please mark only one response.)

- English
- Spanish
- Vietnamese
- Russian
- Hmong
- Korean
- Tagalog or other Filipino language
- Cantonese, Mandarin, or other Chinese language
- Hindi, Punjabi, or other South Asian language
- Farsi, Dari, Arabic, or other Middle Eastern language
- Other _____

34. What is your relationship to this child? Mother Father Grandparent Foster Parent Other: _____

35. Who lives with the child in his/her home? (Please mark all that apply.)

- Mother(s)
- Father(s)
- Grandparent(s)
- Foster Parent(s)
- Other children 0-5
- Other children 6 or older
- Other: _____

36. Do you consider yourself to be a single parent? Yes No

37. Have you or any other primary parent / guardian lost your job during the last 12 months? Yes No

38. How many different places have you lived since your kindergarten child was born (including where you are currently living)? For example, if you have never moved, please mark 1; if you have moved once, please mark 2. (Please mark only one response.)

- 1
- 2
- 3
- 4
- 5 or more

39. Have you and your kindergarten child been homeless together at any point since he or she was born?

- Yes
- No

40. What are the nearest major cross-streets, city, and zip of your child's primary residence?

Please note: The information you provide on the survey will be kept strictly confidential. This question is optional, but the information will be used to help guide investments in services and supports in your community.

Major cross-streets (e.g., Main St. & 2nd) _____ City _____ ZIP Code _____

41. What is the child's mother's date of birth (month and year)? Month ____ Year ____ Don't know

42. What is the highest education level the child's mother has completed? (Please mark only one response.)

- Less than 6th grade
- Middle school (6th, 7th or 8th)
- Some high school
- High school (diploma)
- Some college
- Associate's degree (AA or AS)
- Bachelor's degree (BA or BS)
- Advanced degree
- Don't know

43. What is your approximate family income per year? (Please mark only one response.)

- \$0 - \$14,999
- \$15,000 - \$34,999
- \$35,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 or more

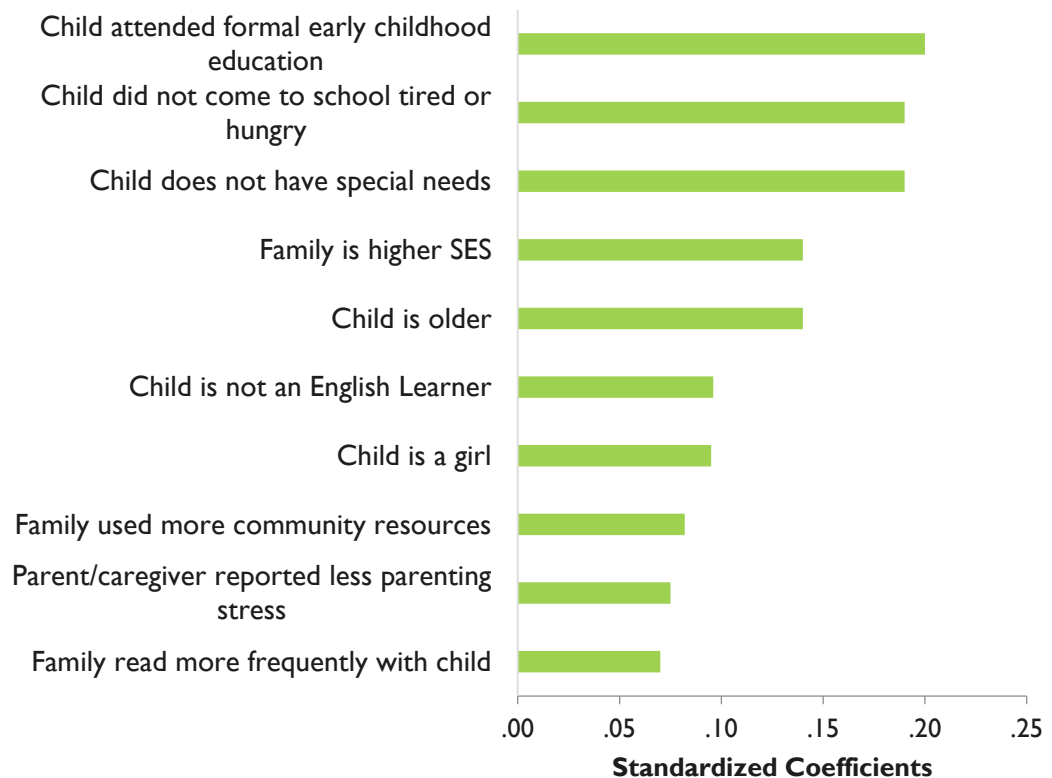
Thank you! Please place survey in envelope provided and seal the envelope. Do not fold! Then, give the sealed envelope to your child's teacher.

For Office use only:	40. <input style="width: 40px; height: 20px;" type="text"/> <input style="width: 40px; height: 20px;" type="text"/> <input style="width: 40px; height: 20px;" type="text"/> <input style="width: 40px; height: 20px;" type="text"/>	41. <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/>
----------------------	---	---

Appendix: Kindergarten Readiness Regression Results

A multilevel regression was conducted on kindergarten readiness scores for children in the 2017 Alameda County Kindergarten Readiness Assessment to identify the strongest predictors of kindergarten readiness. The chart below illustrates the relative strength of each significant predictor's association with kindergarten readiness in the final regression model. Each of the predictors had a significant, independent contribution to readiness. The results are standardized to allow us to compare factors measured on different scales (e.g., dichotomous measures like gender and continuous measures like reading frequency).

Figure 78. **Predictors of Overall Kindergarten Readiness**



Source: Kindergarten Observation Form (2017), Parent Information Form (2017)

Note: N=1,083. All variables in the chart are statistically significant ($p < .05$). The overall regression model was significant ($p < .001$), explaining 37% of the variance in kindergarten readiness ($R^2 = .37$). Standardized coefficients represent the number of standardized deviations of change in readiness associated with each standard deviation of change in the predictor.

References

- Alexander, K., Entwisle, D., & Kabbani, N. (2001). The dropout process in life course perspective: Early risk factors at home and school. *The Teachers College Record*, 103(5), 760-822.
- American Academy of Pediatrics. (2016). Media and young minds. *Pediatrics*, 135(5). Retrieved from <http://pediatrics.aappublications.org/content/138/5/e20162591>
- Bettencourt, A., Gross, D., & Ho, G. (March 2016). *The costly consequences of not being socially and behaviorally ready by kindergarten: Associations with grade retention, receipt of academic support services, and suspensions/expulsions*. Baltimore Education Research Consortium. Retrieved from <http://baltimore-berc.org/wp-content/uploads/2016/03/SocialBehavioralReadinessMarch2016.pdf>
- Byrd R. S., & Weitzman, M. L. (1994). Predictors of early grade retention among children in the United States. *Pediatrics*, 93, 481-487.
- Crosnoe, R., & Cooper, C. E. (2010). Economically disadvantaged children's transitions into elementary school: Linking family processes, school contexts, and educational policy. *American Educational Research Journal*, 47(2), 258-291. doi:10.3102/0002831209351564
- Currie, J. M. (2005). Health disparities and gaps in school readiness. *The Future of Children*, 15(1), 117-138.
- Duncan, G. D., Claessens, A., Huston, A. C., Pagani, L. S., Engel, M., Sexton, H., Dowsett, C. J., Magnuson, K., Klebanov, P., Feinstein, L., Brooks-Gunn, J., Duckworth, K., & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43, 1428-1446.
- Entwisle, D. R., Alexander, K. L., & Olson, L. S. (2005). First grade and educational attainment by age 22: A new story. *American Journal of Sociology*, 110(5), 1458-1502.
- Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness in the ECLS-K: Predictions to academic, health, and social outcomes in first grade. *Early Childhood Research Quarterly*, 21(4), 431-454.
- Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, 312(5782), 1900-1902. doi:10.1126/science.1128898
- Heckman, J. J., & Raut, L. K. (2013). *Intergenerational long term effects of preschool-Structural estimates from a discrete dynamic programming model* (No. w19077). National Bureau of Economic Research.
- Hutton, J. S., Phelan, K., Horowitz-Kraus, T., Dudley, J., Altaye, M., DeWitt, T., & Holland, S. K. (2017). Shared reading quality and brain activation during story listening in preschool-age children. *The Journal of Pediatrics*, 191, 204-211.
- Isaacs, J. (2012). *Starting school at a disadvantage: The school readiness of poor children*. Washington, DC: The Brookings Institution.
- Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health*, 105(11), 2283-2290.

- Maxwell, K. L., & Clifford, R. M. (2004). School readiness assessment. *Young Children*, 59, 42-49.
- National Education Goals Panel. (1995). *1995 National Education Goals Report*. Washington, DC: Author. Retrieved from <http://govinfo.library.unt.edu/negp/reports/goalsv1.pdf>.
- Pianta, R. C., Cox, M. J., & Snow, K. L. (2007). *School readiness and the transition to kindergarten in the era of accountability*. Paul H Brookes Publishing.
- Manship, K., Quick, H., Ogut, B., Holod, A., Brodziak de los Reyes, I., & Anthony, J. (June 2017). *The impact of Transitional Kindergarten on California's students*. American Institutes for Research. Retrieved from <https://www.air.org/sites/default/files/downloads/report/Transitional-Kindergarten-Final-Executive-Summary-Research-Brief-June-2017-rev.pdf>
- Reynolds, A. J., Richardson, B. A., Hayakawa, M., Lease, E. M., Warner-Richter, M., Englund, M. M., ... & Sullivan, M. (2014). Association of a full-day vs part-day preschool intervention with school readiness, attendance, and parent involvement. *JAMA*, 312(20), 2126-2134.
- Roderick, M. (1994). Grade retention and school dropout: Investigating the association. *American Educational Research Journal*, 31(4), 729-759. doi:10.3102/00028312031004729
- Ryan, R. M., Fauth, R. C., & Brooks-Gunn, J. (2006). Childhood poverty: Implications for school readiness and early childhood education. In B. Spodek & O. N. Saracho (Eds.), *Handbook of research on the education of children* (2nd edition) (pp. 323-346). Mahwah, NJ: Erlbaum Associates.
- Sabol, T. J., & Pianta, R. C. (2012). Patterns of school readiness forecast achievement and socioemotional development at the end of elementary school. *Child Development*, 83(1), 282-299. doi:10.1111/j.1467-8624.2011.01678.x
- Tach, L. M., & Farkas, G. (2006). Learning-related behaviors, cognitive skills, and ability grouping when schooling begins. *Social Science Research*, 35(4), 1048-1079.
- Zhai, F., Brooks-Gunn, J., & Waldfogel, J. (2011). Head Start and urban children's school readiness: A birth cohort study in 18 cities. *Developmental psychology*, 47(1), 134.
- Zill, N., & West, J. (2001). *Entering kindergarten: A portrait of American children when they begin school: Findings from the Condition of Education 2000*. Washington DC: National Center for Education Statistics.