



RESULTS OF THE 2015 FALL ASSESSMENT

SCHOOL READINESS

in Alameda County

COMPREHENSIVE REPORT

Funding provided by:



Funding provided by:



Produced by:



School Readiness Assessment



Acknowledgements

Applied Survey Research (ASR) would like to acknowledge the following individuals for their support and assistance in the planning and implementation of the 2015 school readiness assessment in Alameda County:

The Interagency Children’s Policy Council, Funder

- Julie Hadnot
- Emily Pangilinan

From Alameda County Office of Education

- L. Karen Monroe, Superintendent, Alameda County Schools

From Hayward Unified School District

- Hector Garcia, Director, Hayward Promise Neighborhood
- Gloria Prada, Director, Assessment, Research, and Evaluation Department

From Oakland Unified School District

- Curtiss Sarikey, Deputy Chief, Community Schools and Student Services
- Ray Mondragon, Deputy Chief of Early Learning

From San Lorenzo Unified School District

- Fleurdeliz McJilton, School Readiness Coordinator

ASR would like to specially thank First 5 staff members who helped with designing, implementing, and offering valuable feedback on the 2015 Alameda County school readiness assessment project, including Chris Hwang, Carla Keener, and Lisa Erickson.

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	Teacher
Earhart Elementary	Jessica Daniels
	Katy Kelly
	Laura Friedlander
Haight Elementary	Grace Liu-Smith
	Teresa Morrison
Lum Elementary	Kimberly Hare
Paden Elementary	Christine Schnetz
	Nishone Weymouth
Albany Unified	Teachers
Marin Elementary	Adele King
	Eileen McKenzie
Castro Valley Unified	Teachers
Marshall Elementary	Cathy Dostal
	Jamie Hora
	Maria Leyson
Emery Unified	Teacher
Anna Yates Elementary	Malcolm Waugh
	Megan McLaughlin
Fremont Unified	Teachers
Forest Park Elementary	Aubrie Reeves
	Malinda Elliott
	Sherra Garabedian
	Stephanie Chan
Green Elementary	Alicia Norling
Leitch Elementary	Mandi Boni
	Shirley Gunawan
Mattos Elementary	Danika Heggebo
	Melissa Means
	Monique Manjarrez
Mission San Jose Elementary	Kelly Berbereia
Mission Valley Elementary	Sheri Carlson
Niles Elementary	Emily Langford
	Maria Lin
Patterson Elementary	Evelina Chao
Hayward Unified	Teachers
Burbank Elementary	Alex Costa
	Linda Lanthier
	Maria Mendez
	Paula Lawrence
	Yesenia Garcia
Eden Gardens Elementary	Carolyn Barrientos

	Lesley Feikert
Harder Elementary	Ashley Frey
	Maria (Lupita) Guadalupe Estrada
	Samantha Richardson
Palma Ceia Elementary	Ben Hinchman
	Jeanne Vidal-Smith
	Marie (Toni) Echaves
Park Elementary	Argelia Ramos
	Kendra Capen
Schafer Park Elementary	Donna Nelson
	Monica Bocanegra
Southgate Elementary	Danni Lopez
	Hali DeMoss
	Maria Rosas Williams
	Marla DeChaine
Strobridge Elementary	Joan Tarle
	Melissa Estes
Livermore Valley Joint Unified	Teachers
Arroyo Seco Elementary	Barbara Gagnon
Jackson Avenue Elementary	Carol Voegele
Oakland Unified	Teachers
Allendale Elementary	Susan Naclerio
Brookfield Elementary	Luz Zurita
Carl B. Munck Elementary	Faustena (Tina) Byrd-Linarex
Community United Elementary	Dana Parsons
Esperanza Elementary	Desiree Fernandez
	Dolores Beleche
Fruitvale Elementary	Valerie Otsuka
Garfield Elementary	Pamela Mullen
Greenleaf Elementary	Katherine Gibson
Hoover Elementary	Jacqueline Duong
Howard Elementary	Colleen Shepherd
Laurel Elementary	Grace Tse
Learning without Limits	Sonya Mehta
Markham Elementary	Brenda Theodore
	Luby Becerra
New Highland Academy	Aurelie Hardin
	Jenna Plante
	Sanae Ortiz
Parker Elementary	Meron Misgun
	Michelle Wong
Think College Now	Emma Coufal
	Monica Purdy

Thornhill Elementary	Bonnie Forbes
	Debbie Weissman
	Richard Thompson
	Diedre Reed
San Lorenzo Unified	Teachers
Colonial Acres Elementary	Alberto Nodal
	Nancy Katen
	Tammy Braun
Corvallis Elementary	Kirsten Hynds
	Margie Penaranda
Grant Elementary	Angela Cattin
	Julie Henderson
Hesperian Elementary	Loredeen Burton
	Yvonne Schaff
Lorenzo Manor Elementary	Charlotte Davis
	Cyndi Liang

Table of Contents

Acknowledgements	i
Table of Figures	6
Snapshot of the 2015 School Readiness Assessment	8
Introduction	12
Methodology.....	15
School Readiness in Alameda County.....	22
Student and Family Factors Associated with School Readiness	27
Kindergarten Students and Families in the 2015 Readiness Study.....	36
Transitions to Kindergarten	52
Special Section: Readiness of Boys of Color	61
Special Section: Race, Risk, and Readiness	55
Conclusions and Discussion	61
About the Researcher	69
References	71

Table of Figures

Figure 1.	<i>Basic Building Blocks</i> of Readiness and <i>Motor Skills</i> Items	8
Figure 2.	Percent Ready for Kindergarten	9
Figure 3.	Key Predictors of Overall School Readiness (in order of strength)	10
Figure 4.	Map of Participating Schools by District, 2015 School Readiness Assessment	14
Figure 5.	An Overview of Participation in 2008-2015, by District.....	16
Figure 6.	Schools and Classrooms by District, 2015.....	16
Figure 7.	Overview of Data Collection Instruments.....	17
Figure 8.	How Many Completed the Study?.....	18
Figure 9.	<i>Basic Building Blocks</i> of Readiness and <i>Motor Skills</i> Items	23
Figure 10.	Students' Proficiency Levels across 20 School Readiness Skills	24
Figure 11.	Percent Ready for Kindergarten	25
Figure 12.	Percent Ready Within Each <i>Building Block</i>	26
Figure 13.	Key Predictors of Overall School Readiness (in order of strength)	28
Figure 14.	Readiness, by Predictors: Health/Well-Being, Early Childhood Education, Age	29
Figure 15.	Readiness, by Predictors: Special Needs, English Learner, Gender	30
Figure 16.	Readiness, by Predictors: Race/Ethnicity, Multi-/Single Parenthood, Screen Time	31
Figure 17.	Readiness, by Predictors: Mother's Educational Attainment, Family Income	31
Figure 18.	Cumulative Effect of Predictors	32
Figure 19.	Demographic Characteristics of Children who were <i>Not Ready</i>	32
Figure 20.	Health and Development of Children who were <i>Not Ready</i>	33
Figure 21.	Early Enrichment Experiences of Children who were <i>Not Ready</i>	34
Figure 22.	Screen Time and Number of Risk Factors among Children who were <i>Not Ready</i>	34
Figure 23.	Students' Gender, Age, and English Learner Status.....	36
Figure 24.	Percent of Kindergarten Students of Each Race/Ethnicity	37
Figure 25.	Teacher Reports of Children's Well-Being	37
Figure 26.	Types of Special Needs, as Reported by Parents*	38
Figure 27.	Maternal Educational Attainment, Family Income, and Single Parenthood	39
Figure 28.	Students' Early Care Experiences.....	40
Figure 29.	Percent Attending TK, Preschool, or Licensed Family Care, by Child/Family Demographics	41
Figure 30.	Home Languages.....	42
Figure 31.	Frequency of Attendance Concerns.....	43
Figure 32.	Children's Access to and Use of Health Care	43
Figure 33.	Parent Reports of Family and Domestic Concerns	44

Figure 34.	Parents' Perceptions of Support and Safety	45
Figure 35.	Number of Addresses Since Child's Birth & Homelessness	45
Figure 36.	Relationship between Housing Instability and Other Risk Factors	46
Figure 37.	Average Number of Risk Factors, by Race/Ethnicity	47
Figure 38.	Readiness, by Risk Factors	47
Figure 39.	Frequency of Family Activities per Week.....	48
Figure 40.	Weeknight Bedtimes.....	48
Figure 41.	Percent of Families Using Local Resources	49
Figure 42.	Percent of Families Using Parenting Programs, Services, and Supports.....	49
Figure 43.	Receipt of Information Related to Kindergarten Transition	52
Figure 44.	Percent of Parents Engaging in Transition Activities	53
Figure 45.	Percent of Parents Engaging in Transition Activities, by Income.....	53
Figure 46.	Family Background/Environment	55
Figure 47.	Child Health Outcomes	56
Figure 48.	Home Enrichment Activities	56
Figure 49.	Adjusted Readiness Scores and Percent <i>Fully Ready</i> , by Race (Unweighted)	57
Figure 50.	Relationship Between Predictors of Readiness and Overall Scores, by Race/Ethnicity.....	58
Figure 51.	Substantiated Child Maltreatment Rate per 1000 Children 0-5 in Alameda County, 2015.....	59
Figure 52.	Percent of 3 rd Graders in Alameda County Proficient in Math and ELA, 2014-15	60
Figure 53.	Percent <i>Fully Ready</i> , by Race/Ethnicity and Gender.....	61
Figure 54.	Boys of Color and Other Demographic, Developmental, and Family Risk Factors	62
Figure 55.	Boys of Color and Early Learning Experiences	62
Figure 56.	Cumulative Effect of Predictors for Boys of Color	63

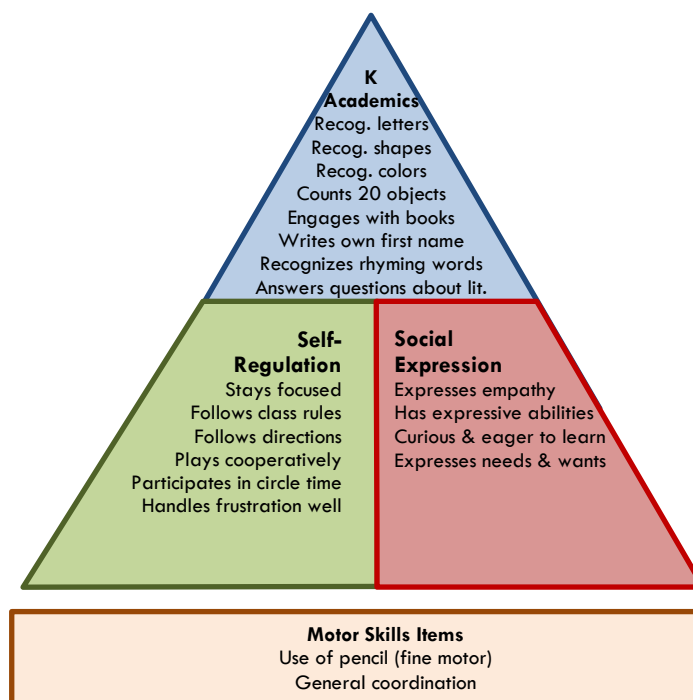
Snapshot of the 2015 School Readiness Assessment

Background

This report describes the state of school readiness and related findings for kindergarten students across Alameda County who started school in Fall 2015. This is the second such assessment, following a 2013 study of similar size and scope. The study was funded by First 5 Alameda County (F5AC), with support from the Interagency Children’s Policy Council.

The report is based on data collected about children and families at 47 schools, spanning nine school districts. Teachers at these schools 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 pyramid 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 pyramid contains early academic skills, like counting and color, shape, and letter recognition.

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



In addition to the teacher ratings, the study involved a survey of parents about their child’s demographics, family background, and child care experiences. Please note that the information presented in this report describes only those students and families assessed; statistical techniques were used to make the sample representative of the county in terms of the percentage of English Learners

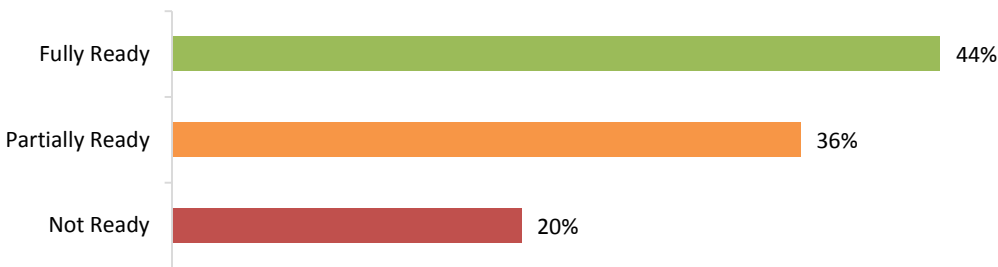
and relative sizes of school districts, but because of sample limitations, the findings are not generalizable to all children in the county.

Key Findings

How ready for school 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 were *Fully Ready* for kindergarten.

Figure 2. **Percent Ready for Kindergarten**

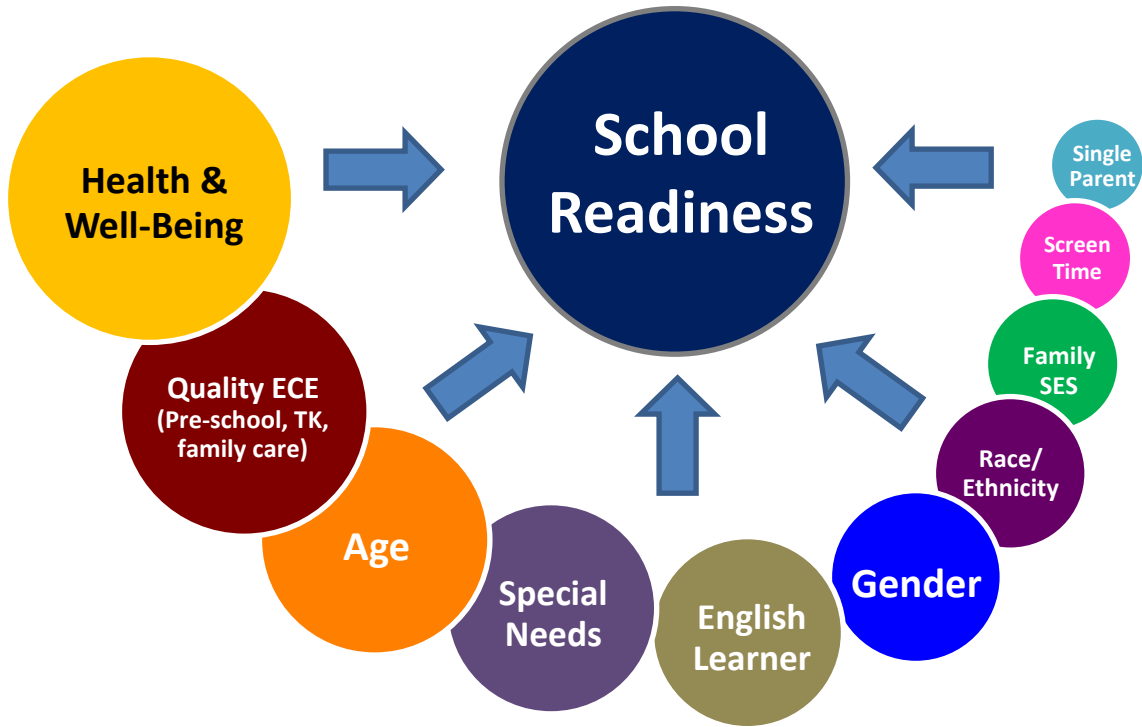


Source: Kindergarten Observation Form (2015)
Note: N=1,460.

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

The factors that were strongly and independently associated with readiness are illustrated in the diagram below. 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 impact of child well-being on readiness is significant for children in both high and low socioeconomic status (SES) families. Likewise, the effect of preschool on readiness is significant, regardless of the child's age, race/ethnicity, or gender. 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 coming to school healthy, well-rested, and well-fed, followed by preschool, Transitional Kindergarten, or licensed family care attendance. Children who were older, did not have special needs, were not English Learners, and were female also had higher readiness levels. In contrast, children who were African-American/black, from low SES families, exposed to more screen time during the week (i.e., TV and video games), and from single parent families, had lower readiness levels, controlling for other characteristics.

Figure 3. Key Predictors of Overall School Readiness (in order of strength)



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

- 14%** of children came to school hungry, tired, or sick on at least some days, and these children experienced lower levels of readiness than their healthy peers.
- 83%** of children attended preschool, licensed family child care, or TK in the prior year; these experiences predicted higher readiness.
- 5.5** years old: children’s average age when they entered school. Older children also had higher readiness levels.
- 8%** of students had a diagnosed special need. Having a special need was associated with lower readiness.
- 40%** of students were English Learners. English Learners also had lower readiness than those who were proficient in English.
- 50%** of children were male, and boys had lower readiness than girls.
- 45%** of students were Hispanic/Latino (of any race), 23% were Asian/Pacific Islander, 12% were white, 8% were African-American/black, 4% were Filipino, and 18% were mixed race/ethnicity. African-American/black children had lower readiness than children of other races/ethnicities.

- 38% of children came from families with incomes under \$35,000 per year and 31% of mothers had no more than a high school education. Lower family socioeconomic status was related to lower readiness.
- 41% of children spent more than the recommended two hours per day on screen time activities (watching TV or playing video/computer games). Higher exposure to screen time predicted lower readiness levels.
- 20% of families were headed by a single parent, and the children in these families had lower readiness than children in multi-parent families.

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

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

- Interventions that promote child health and well-being, such as expanded food subsidies, free meal programs, free and subsidized health insurance, and quality medical care;
- Quality early childhood education experiences for all children, including dual language preschools for children whose first language is not English;
- 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, including home visiting and parent education on school readiness, to help parents with limited resources or whose children do not have access to licensed preschool engage in enriching school readiness activities with their children, such as reading or working on school skills.

These approaches align well with current F5AC investment strategies, but improving the readiness of children countywide will require the contribution of partners throughout the community.

Introduction

What is School Readiness?

School readiness is broadly defined as the set of physical, social/emotional, and academic skills students need to make a successful transition to kindergarten. To a great extent, these skills are cultivated through the experiences and environments children have been exposed to over their first four to five years of life. This understanding of readiness highlights the importance of taking into account not only children’s readiness as they begin kindergarten, but the readiness of families, communities, and schools to support those children. 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 school readiness. In one of the early large-scale efforts to establish a common framework for addressing school readiness issues, the National Education Goals Panel (NEGP) organized school readiness skills into five domains: *Physical Well-Being & Motor Development*, *Social & Emotional Development*, *Approaches Toward Learning*, *Communication & Language Usage*, and *Cognition and General Knowledge*. 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.

Why Does School Readiness Matter?

Interest in assessing school readiness is based on research connecting it to an array of long-term outcomes. Experts in the field have noted that cognitive and behavioral readiness skills generally predict children’s ability to smoothly transition into and through elementary school (Pianta, Cox, & Snow, 2007). More specifically, children who demonstrate proficiency across an array of 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, & Calkins, 2003). Many other studies have also found linkages between early school readiness and later success in school. For example:

- Children’s patterns of readiness just prior to kindergarten, particularly possessing social competence or advanced memory skills, predict fifth grade achievement (Sabol & Pianta, 2012).

NATIONAL EDUCATION GOALS PANEL School 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

- Kindergarten academic skills (e.g., knowing numbers and letters) and the ability to sustain attention significantly predict math and reading achievement later in elementary school and in early adolescence (Duncan et al., 2007).
- Mastery of basic numerical concepts prepares children to learn more complex math problems and problem-solving approaches (e.g., Baroody, 2003).
- Number competency skills at kindergarten entry predict both the rate at which children’s math skills improve from first to third grade, as well as math performance in third grade (Jordan, Kaplan, Ramineni, & Locuniak, 2009).
- Children who are persistent, attentive, and able to regulate their emotions at kindergarten entry have better reading and math performance through fifth grade (Li-Grining, Votruba-Drzal, Maldonado- Carreno, & Haas, 2010).



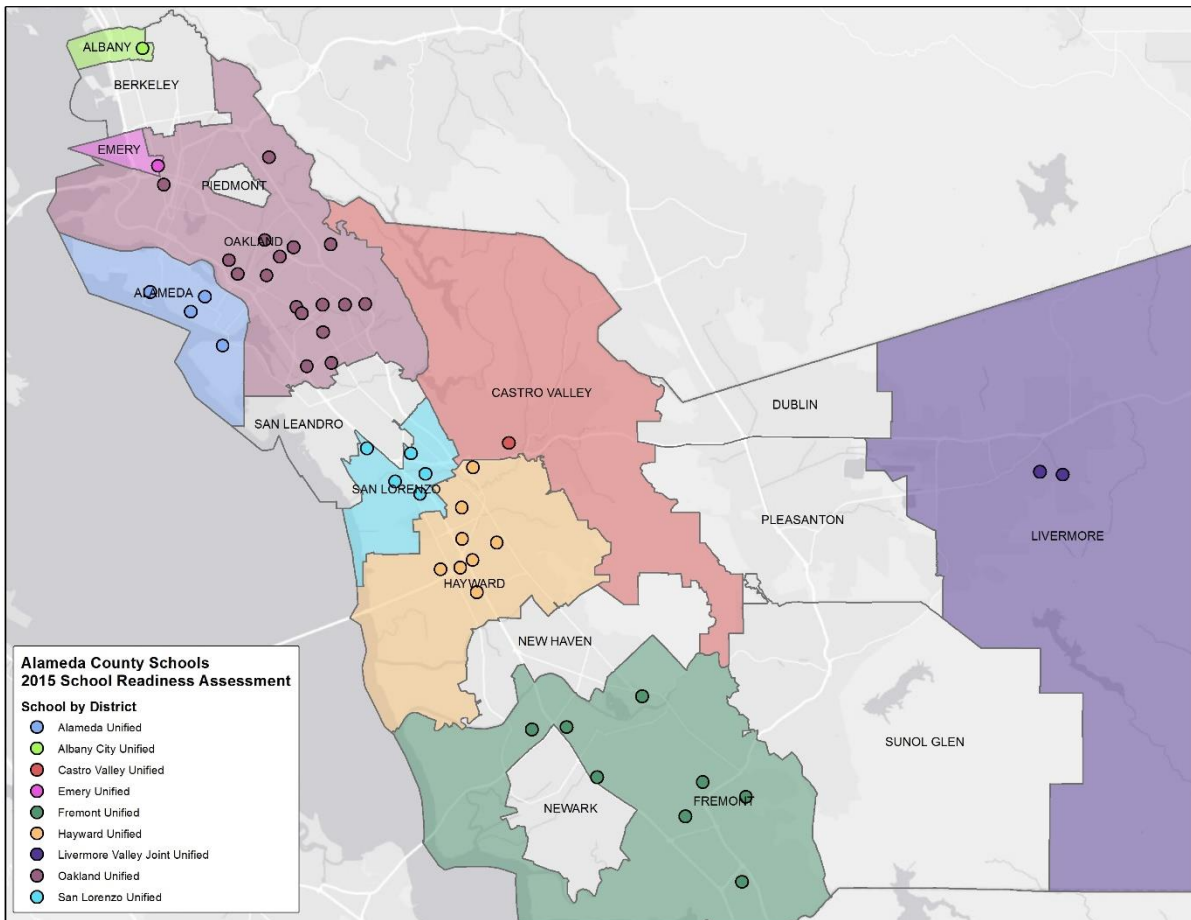
School readiness predicts long-term education and employment outcomes.

It is also considered critical to measure readiness because of its potential long-term impacts on educational attainment, health and well-being, and financial stability. 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, the cognitive and self-regulation skills children develop prior to adolescence predict their labor market success and earnings as adults (Farkas, 2003; Caneiro & Heckman, 2003). Moreover, research has found early development and educational achievement to be associated with later health outcomes. For example, educational achievement has been linked to chronic disease rates, disability, engagement in risk behaviors, and later socioeconomic factors that in turn influence health status (Fiscella & Kitzman, 2009). It is clear that school readiness has a wide-ranging impact on a child’s development and long-term outcomes.

Assessing School Readiness in Alameda County

ASR has conducted six readiness assessments in Alameda County since 2008, the last two of which were aimed to reach children from across the entire county. The map below illustrates the locations of participating districts and schools in the 2015 study.

Figure 4. **Map of Participating Schools by District, 2015 School Readiness Assessment**



The key research questions examined in this year’s study are the following:

1. How ready for school were children assessed in Alameda County?
2. What family factors and child characteristics are associated with higher levels of school 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 school readiness in Alameda County? That is, what do the findings suggest is needed to improve readiness in the county and reduce disparities?

This report aims to answer these questions, as well as offer recommendations for future explorations of school readiness in the county.

Methodology

This section first describes the sample, instruments, and procedures used for data collection in the Alameda County 2015 readiness assessment. It also includes information on how the data presented in this report were prepared, analyzed, and interpreted.

Who Completed the Study?

Participation by District

In all, 1,530 kindergarten students from 89 classrooms were included in the study. In addition, 111 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 2015 sample was overwhelmingly comprised of kindergarteners from Oakland, Hayward, Fremont, and San Lorenzo Unified School Districts. Compared to the overall population of kindergarten students in the county, children in San Lorenzo, Alameda, Emery, and Hayward were *overrepresented* in the current study, while children in Livermore and New Haven were *underrepresented*. Participation was generally strongest in districts that had participated in prior years. This is particularly true in Hayward, which participated in a district-specific readiness study in 2014 in addition to all five county-wide studies held since 2009. Statistical techniques¹ were used to adjust the disproportionality of students in these districts, and to make the sample representative in terms of the number of students that are English Learners in the county, but these techniques are unable to fully make up for nonparticipation of schools in eight of the districts: Pleasanton, Dublin, Newark, New Haven, San Leandro, the Alameda County Office of Education (ACOE), and Piedmont (not shown below, as it has never participated in the assessment). Furthermore, because the study was voluntary, participation among schools and teachers was not random. Therefore, the sample did not reach a sufficient size and scope to be fully generalizable to the county.

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

Figure 5. **An Overview of Participation in 2008-2015, by District**

District	Readiness Study Participants						Percent of K Students in County 2014-15
	2008 (n=577)	2009 (n=521)	2010 (n=1,394)	2011 (n=1,597)	2013 (n=1,696)	2015 (n=1,530)	
San Lorenzo	81%	56%	19%	21%	17%	10%	6%
Livermore	16%	18%	14%	13%	2%	3%	6%
Oakland	3%	4%	14%	17%	21%	25%	24%
Hayward	--	17%	21%	12%	20%	29%	10%
Emery	--	5%	2%	--	1%	2%	<1%
Berkeley	--	--	18%	--	--	--	4%
Pleasanton	--	--	7%	6%	2%	--	5%
Castro Valley	--	--	5%	4%	4%	3%	4%
Fremont	--	--	--	10%	20%	19%	17%
New Haven	--	--	--	7%	1%	--	5%
San Leandro	--	--	--	11%	7%	--	4%
Dublin	--	--	--	--	1%	--	4%
Newark	--	--	--	--	1%	--	3%
Alameda	--	--	--	--	1%	8%	5%
ACOE	--	--	--	--	1%	--	2%
Albany	--	--	--	--	--	2%	2%

Source: Kindergarten Observation Form (2008, 2009, 2010, 2011, 2013, 2015), California Department of Education (2015)
 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 47 schools across Alameda County participated in the assessment. The number of participating schools within each of the nine participating districts ranged from 2 to 25, with the greatest number of participating schools coming from Fremont, Hayward, and Oakland Unified School Districts.

Figure 6. **Schools and Classrooms by District, 2015**

District	Number of schools in sample	Number of classrooms in sample
Alameda Unified	4	7
Albany Unified	1	2
Castro Valley Unified	1	3
Emery Unified	1	2
Fremont Unified	8	15
Hayward Unified	8	23
Livermore Valley Unified	2	2
Oakland Unified	17	25
San Lorenzo Unified	5	10
Total	47	89

Source: Kindergarten Observation Form (2015).

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 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 7. **Overview of Data Collection Instruments**

Instrument	What Key Data Are Assessed?	Who Completes It?
<i>Kindergarten Observation Form (KOF)</i>	20 school 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, and stressors; demographics.	Consenting parents 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 check *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. 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 are given a children’s book (in their preferred language) as an incentive for their completion of the *PIF*. To enhance their privacy, parents 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 1,530 student sample reflects a parental consent rate of 78%. Ninety-one percent of parents who agreed to have their child take part in the study also completed and returned the *PIF*. Readiness data on all 1,530 students are included in this report, however, even if their parent did not complete a *PIF*.

Figure 8. How Many Completed the Study?

Data	Alameda County Sample (14 districts)
Number of children in the classrooms of participating teachers*	1,958
Number of KOFs returned*	1,530
Parent consent rate	78%
Number of PIFs that were matched to a KOF	1,390
Parent PIF response rate (# PIFs received/ # consents)	91%

*Excluding all known TK students (n=111).

Implementation

Obtaining Participation Agreement

ASR and First 5 Alameda County (F5AC) contacted district and school administrators in all Alameda County school districts. All nine participating districts in 2015 had participated in the previous (Fall 2013) 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 F5AC office and selected school sites. All teachers participated in a training prior to conducting the assessment. Each training lasted approximately 75 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 that explained the study purpose and asked parents 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 for teachers to post in their classrooms to facilitate the collection of parental consent forms; 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-completed instruments. Forms for parents 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 was required for a student to be able to participate in the study. As an incentive to encourage participation by families, F5AC gave every child in each participating classroom a children's book.

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 20 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.

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 is weighted to be representative of each district's kindergarten enrollment proportion within the county, as well as the county-wide rate of English Learners². Differences in the proportion of students from each district and of English Learners were calculated to produce frequency weights. These weights were applied to the sample in the analysis of readiness skills.

² Weights based on English Learner status were used, because being an English Learner has been consistently found in previous studies to be associated with readiness levels. Furthermore, utilizing these weights adjusts the sample to be more representative in terms of race/ethnicity as well, and near complete data are available on the proportion of English Learners in both the sample and the county overall.

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 each of 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. Multilevel regression modeling was used to estimate county-wide readiness scores and percentages to account for the fact that children within a classroom tend to be more similar to one another than children in different classrooms.

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 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 several districts not represented at all in the sample. As a result, although the data may hint at the broader picture of readiness county-wide and techniques were used to make the sample resemble county-wide kindergarten population, the findings *do not apply to all schools* across the county. Participation from a broader and more diverse range of schools and districts would be needed to draw conclusions about the readiness levels of children county-wide.

It is also important that readers not draw conclusions about trends over time across multiple years of Alameda County readiness measurements. The number of students and schools assessed each year has changed, the schools participating in each district have also varied from year to year, and in 2015 the assessment instrument (*Kindergarten Observation Form*) was modified from its 2013 version to remove four items that were redundant with other items and/or had low correlations with established readiness

constructs. Some of the items retained were re-worded based on feedback from teachers and to better align with the state kindergarten Common Core standards. There is no evidence this streamlined *KOF* substantially affected readiness scores, but given the variations in sample size and location, as well as changes to the assessment instrument, we believe it is not possible to make valid comparisons in overall county-level readiness scores across years. In contrast, the *Parent Information Form* has changed little over the years. Therefore, demographic and other child and family background information for individual schools and districts that have participated in multiple years could be compared (again, however, since not all schools and districts are represented each year, it is not advised to compare these characteristics at the county level from year to year).

Section Summary

In the months leading up to the start of the 2015-2016 school year, district and school administrators were approached by F5AC and invited to have schools in their districts take part in an assessment of the school 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 of their students and distributed surveys that parents 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 F5AC.

School Readiness in Alameda County

This section presents the following information on the readiness levels of students entering kindergarten in Fall 2015:

- 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 district size and percentage of English Learners in each district. However, the results are not fully generalizable to the county due to limitations with the sample (described in Methodology).

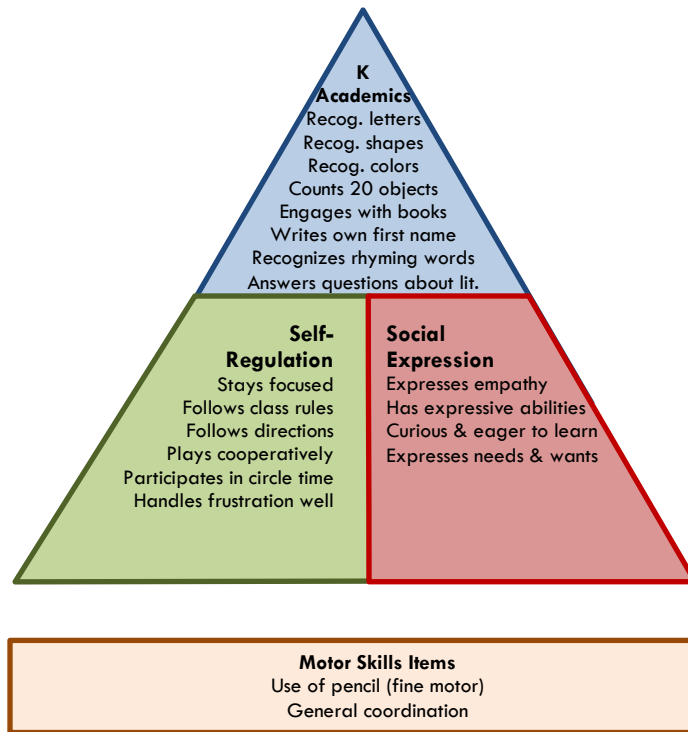
Readiness Levels according to the *Kindergarten Observation Form*

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 school 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, and the literature is mixed on whether they are critical measures of school readiness. Therefore, they are included in the assessment and within the overall average readiness score, but not measured as a separate *Building Block*. Although all of the skill dimensions are important, the pyramid representation in the figure below 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.

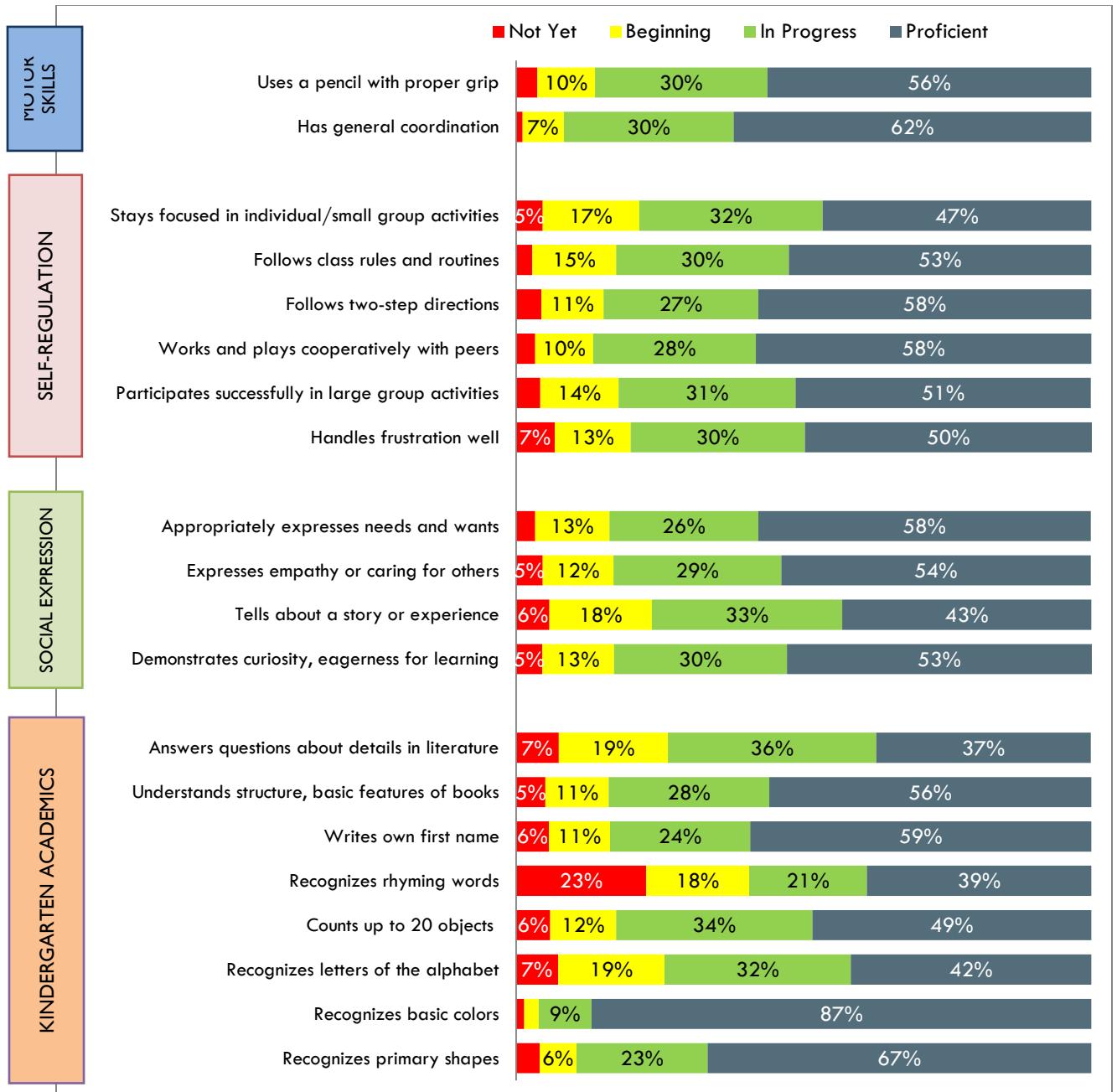
Figure 9. **Basic Building Blocks of Readiness and Motor Skills Items**



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 and the literature is mixed on whether they are critical measures of school readiness. They are included in the overall average readiness score, but not measured as a separate *Building Block*.

The figure below 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 basic colors and 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 key details in literature (*Kindergarten Academics*).

Figure 10. **Students' Proficiency Levels across 20 School Readiness Skills**



Source: Kindergarten Observation Form (2015). N=1,495-1,514. 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:

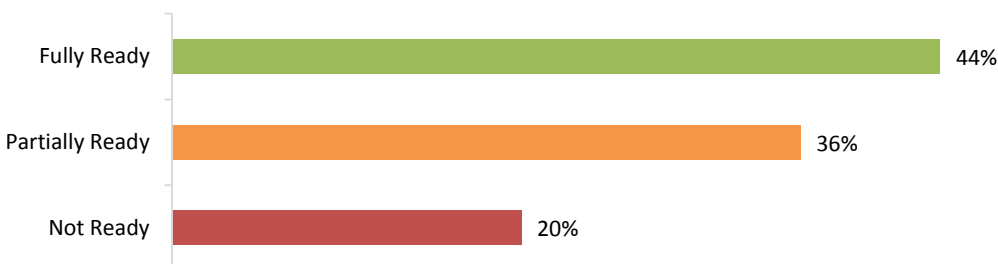
FULLY READY: Students who are socially and academically well-prepared for school. Their average scores within three *Building Blocks* – *Self-Regulation*, *Social Expression*, and *Kindergarten Academics* – were between 3.25 and 4.00 (on a scale of 1-4).

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 the sample were *Fully Ready* for kindergarten, while another 36% were *Partially Ready*, having scored at or above 3.25 on some but not all of the *Building Blocks*. The remaining 20% were *Not Ready*, having scored below 3.25 on all three *Building Blocks*.

Figure 11. **Percent Ready for Kindergarten**

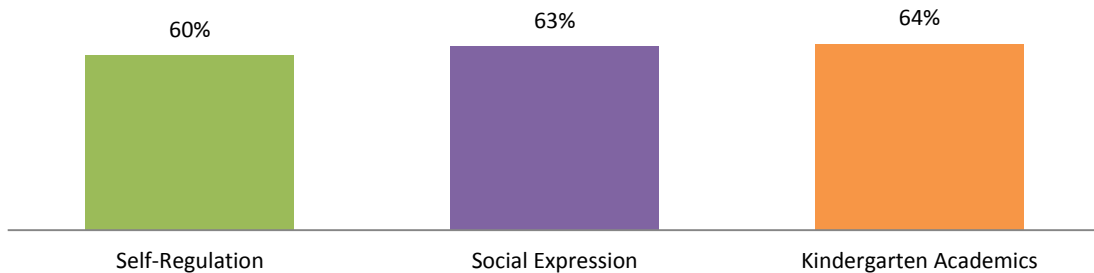


Source: Kindergarten Observation Form (2015)
Note: N=1,460.

When each *Building Block* is considered separately, we find that the highest percentage of children were *Proficient* or nearing proficiency on the *Kindergarten Academics* domain (64% 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 63% met this benchmark on *Social Expression*. 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 919 children who were

Proficient or nearly proficient in *Kindergarten Academics*, just 690 (75%) scored at least 3.25 in *Self-Regulation* and 713 (78%) scored at least 3.25 in *Social Expression*. As described above, only 44% of the sample was *Fully Ready* in all three domains.

Figure 12. **Percent Ready Within Each Building Block**



Source: Kindergarten Observation Form (2015)
Note: N=1,465-1,527.

Section Summary

- The greatest number of students were proficient in recognizing basic colors and shapes, general coordination, and writing their own name. 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).
- Twenty percent of students were *Not Ready* for school in any of the readiness domains.

Student and Family Factors Associated with School 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.

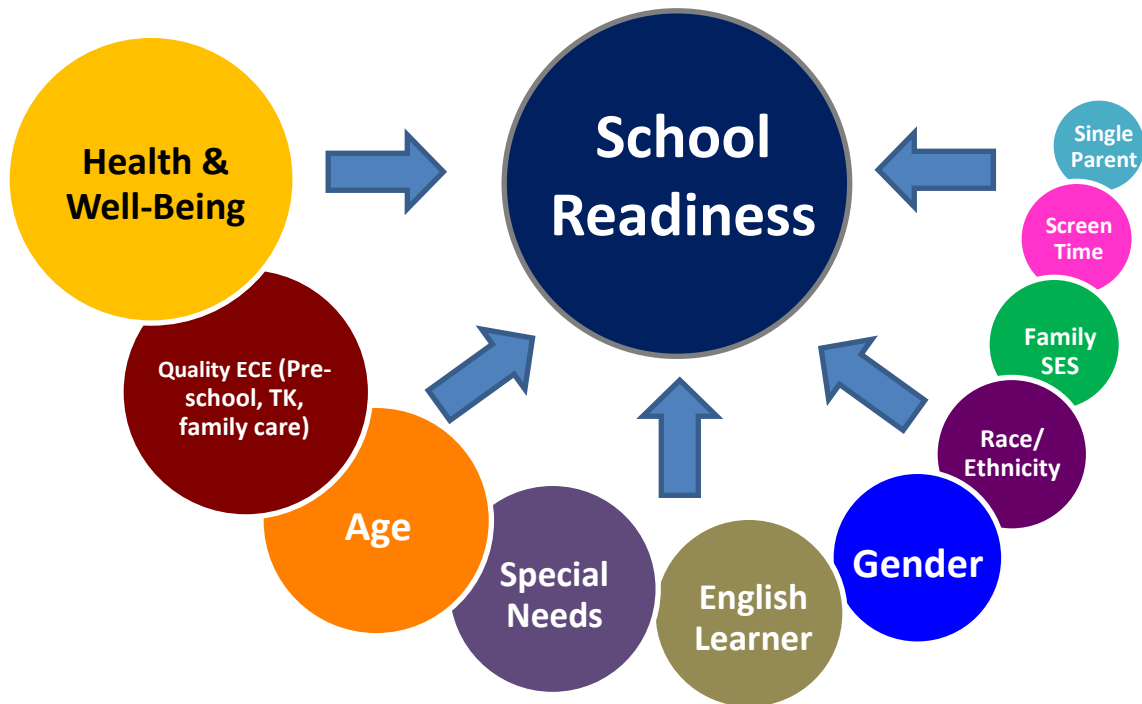
It is important to keep in mind that the analyses conducted here can help us better understand why children vary, but these are ultimately correlational – *not causal* – analyses. The only way to truly determine what causes increased readiness is by conducting a well-controlled experiment. It is also 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, and style of attachment to parents/guardians, for example, were not measured in this study, but may play an important role in children’s readiness for school.

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 factors³. 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 come to school healthy or who attend preschool 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.

³ The following variables were examined in this analysis, with the variables in italics included in the final model: 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).

Figure 13. Key Predictors of Overall School Readiness (in order of strength)



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

Note: All variables in the chart are statistically significant ($p < .05$). The overall regression model was significant ($p < .001$), explaining 33% of the variance in kindergarten readiness ($R^2 = .33$).

- The strongest predictor of readiness 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, tired, or sick, had readiness levels that were much lower than their peers without well-being concerns, controlling for other child and family factors.
- The next strongest predictor was attendance at **preschool, licensed family child care, or Transitional Kindergarten (TK)**. Children whose parents or teachers said they had at least some formal early childhood education experience in the prior year had higher readiness than children without any experience, holding constant other factors. There was no additional effect on readiness associated with TK attendance after accounting for preschool attendance.
- **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.
- 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.
- Likewise, children entering school as **English Learners** were behind their English-speaking peers in readiness, controlling for other child and family characteristics.
- **Girls** tended to be more ready for school than boys, after accounting for other factors.

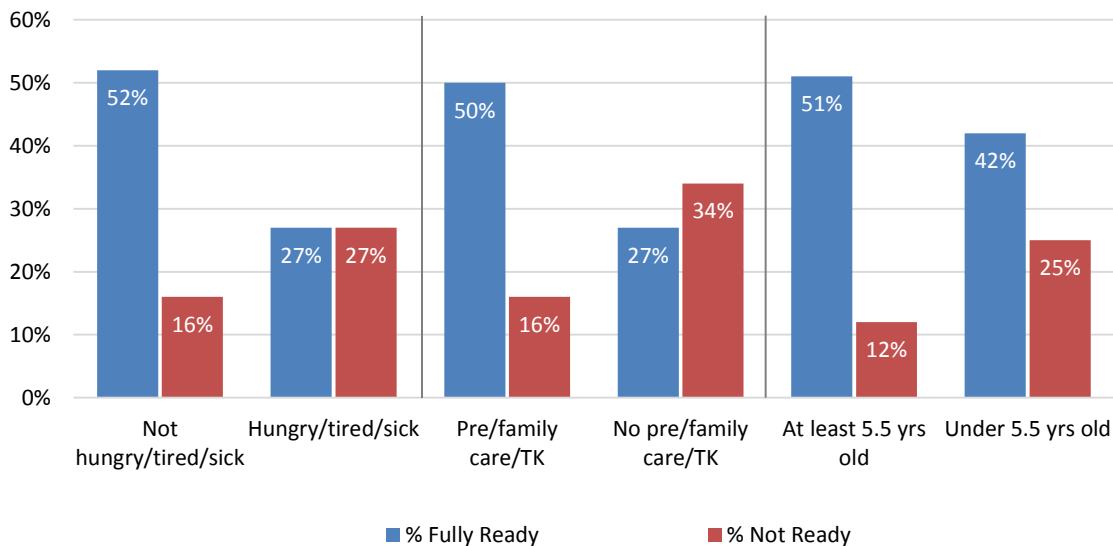
- African-American/black** children had lower readiness levels than children of other races/ethnicities, controlling for other child and family characteristics.
- Children whose **mothers had more than a high school education** or whose **family income** was at least \$35,000 had higher readiness than children from families of lower socioeconomic status, holding constant other factors.
- Readiness scores were slightly higher among children who spent **less time in front of TV or computer screens** during the week, after accounting for other factors.
- Scores were also higher among children in **multi-parent households**⁴, after controlling for other child and family characteristics.

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.

Fifty-two percent of children who came to school healthy, well-rested, and well-fed were *Fully Ready* (compared to 27% of children who did not). Similarly, 50% of those who attended preschool, and 51% of children who were at least 5.5 years old, were *Fully Ready* when they enter kindergarten.

Figure 14. **Readiness, by Predictors: Health/Well-Being, Early Childhood Education, Age**

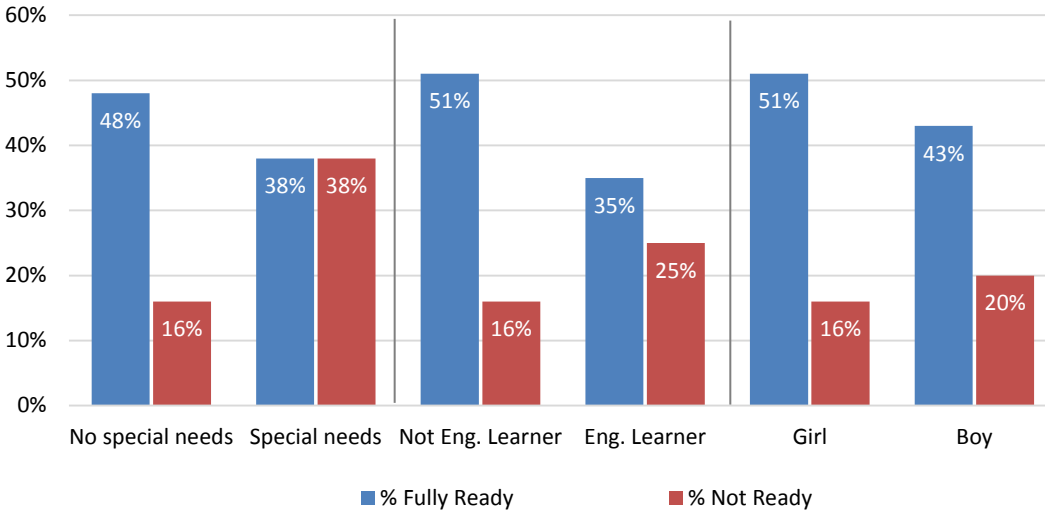


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,201. **All differences are statistically significant (p<.01).

⁴ Being a single parent is associated with other risk factors that may contribute to lower readiness, such as parental job loss, not reading with the child regularly, living in a neighborhood that the parent feels is unsafe, and housing instability.

Likewise, 48% of children who were typically developing, and over half of children who were proficient in English were *Fully Ready* for kindergarten. Fifty-one percent of girls assessed were *Fully Ready* as well.

Figure 15. Readiness, by Predictors: Special Needs, English Learner, Gender

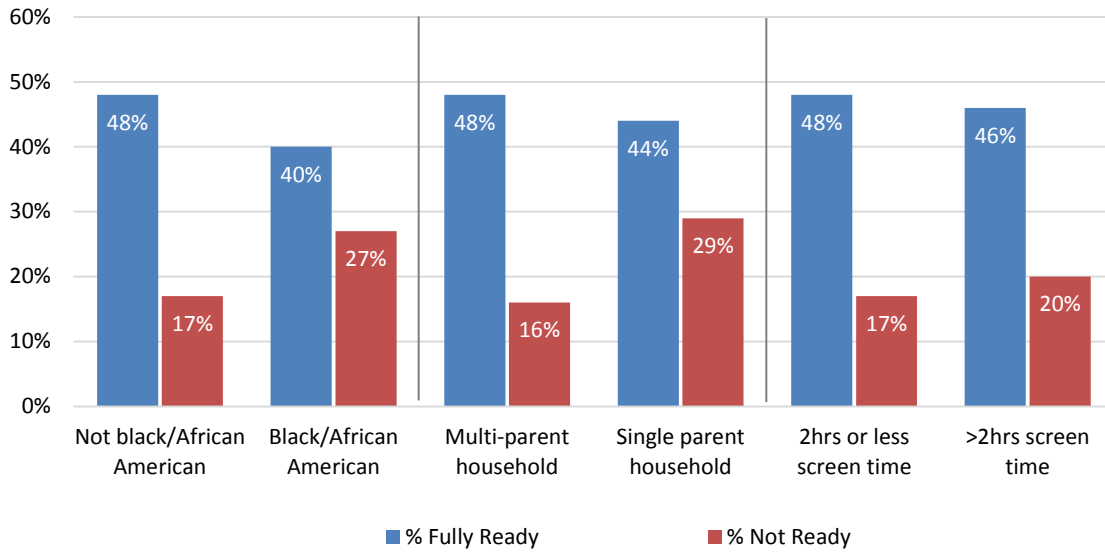


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,201. **All differences are statistically significant (p<.01).

Forty percent of children who were African-American/black were *Fully Ready*, about eight percentage points below their peers (see Special Section: Boys of Color for more details on the relationship between race/ethnicity and readiness). Children who lived in multi-parent households were somewhat more likely to be *Fully Ready* than those who lived in single parent households. This disparity may be related to other risk factors associated with being a single parent, including not reading with the child regularly. Although single parents are also more likely to be low-income and have low maternal educational attainment, we found that having a single parent is associated with lower readiness whether the family is high-income or low-income and regardless of the mother’s educational attainment. Finally, children exposed to no more than two hours of screen time during the week were more likely to be ready than their peers exposed to less screen time (48% and 46%,⁵ respectively, were *Fully Ready*).

⁵ This is higher than the overall sample rate of 44%, because the analysis here was limited to the children whose parents indicated how much screen time their child was exposed to. This suggests that the readiness levels of children whose parents left this question blank were even lower than those who indicated high screen time exposure.

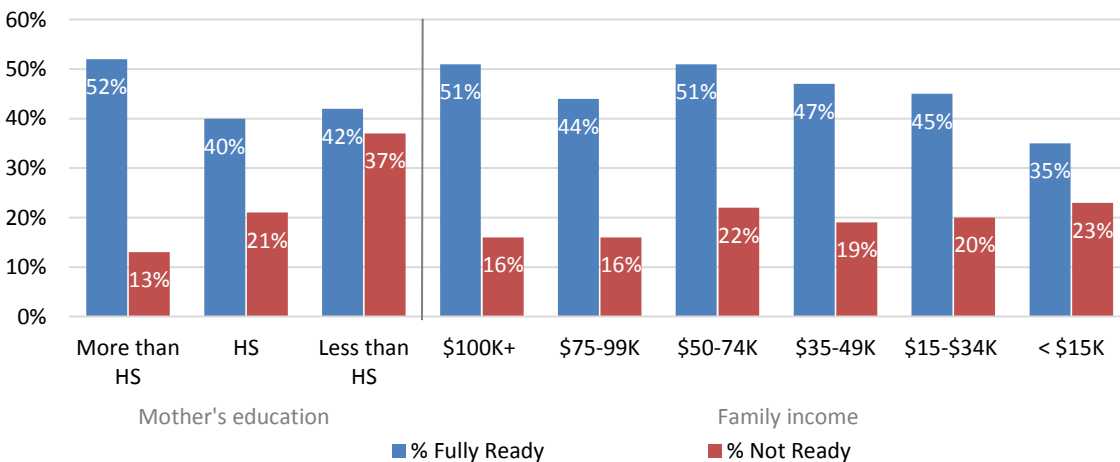
Figure 16. **Readiness, by Predictors: Race/Ethnicity, Multi-/Single Parenthood, Screen Time**



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,106 -1,202. **All differences are statistically significant (p<.01).

Finally, the chart below shows how educational attainment and income levels are positively associated with readiness. Over half of children whose mothers had at least some college were *Fully Ready* for school, compared to just 40-42% of children whose mothers had a high school diploma or less. The greatest difference in readiness based on income was between families earning less than \$15,000 per year and those earning more. As shown below, just 35% of children in very poor families were *Fully Ready*, compared to 45-51% of children in families earning at least \$15,000. Readiness differences between children in the family income categories above \$15,000 were less pronounced.

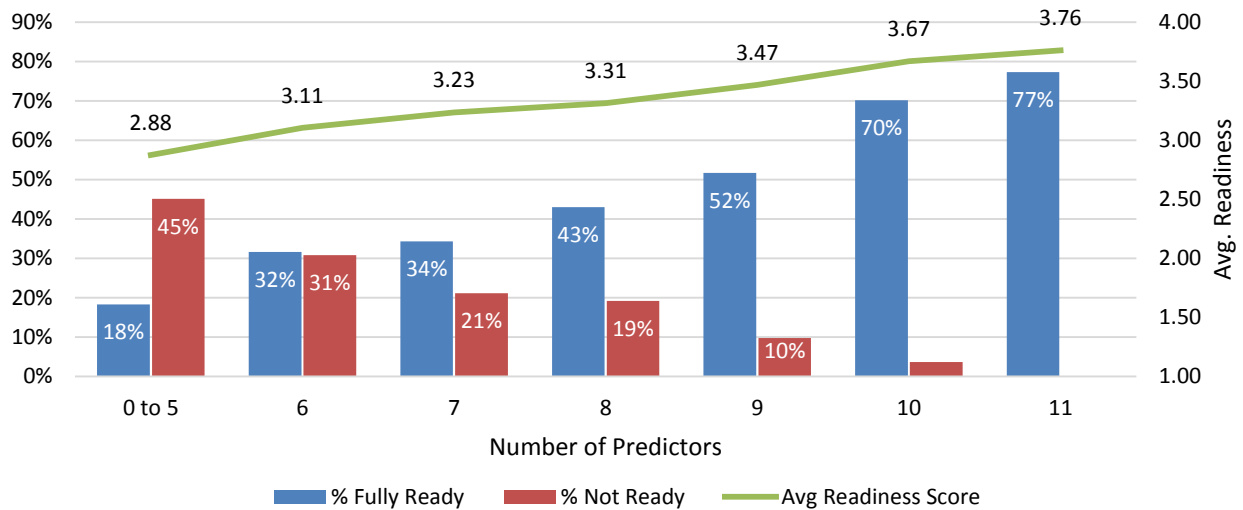
Figure 17. **Readiness, by Predictors: Mother's Educational Attainment, Family Income**



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,183-1,201. **All differences are statistically significant (p<.01).

To illustrate how the effects of these predictors can be cumulative, the chart below shows the readiness of children, depending on the number of positive predictors of readiness the child and his or her family has (out of 11 possible – for this analysis, income and maternal education were considered separate factors). Relatively few children had 0 to 5 predictors, so these children were analyzed as one group. The chart clearly shows that the more positive predictors the child has, the more likely he or she is to be ready for kindergarten. Over three-quarters of children who had all 11 possible predictors were *Fully Ready* for school, compared to just 18% of those who had 0 to 5 predictors.

Figure 18. **Cumulative Effect of Predictors**



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,461. ***Statistically significant, p<.001.

Who was *Not Ready*?

About 294 children (20%) in the 2015 study were considered *Not Ready* for school based on their low scores across all domains of school readiness. They differed significantly from their peers in many ways, from family background to early childhood experiences.

Children who were *Not Ready* were more likely to be African American/black or Latino, an English Learner, younger than average, and from families of lower socioeconomic status. In addition, they were more likely to have a single parent.

Figure 19. **Demographic Characteristics of Children who were *Not Ready***

	% of <i>Not Ready</i>	% of <i>Partially/Fully Ready</i>	N
Race/ethnicity***			
Hispanic/Latino	49%	31%	1457
Black	29%	7%	
White	8%	13%	
Asian/PI	12%	25%	
Multiracial	16%	19%	
English Learner***	55%	40%	1415
Child under 5.5***	60%	43%	1460

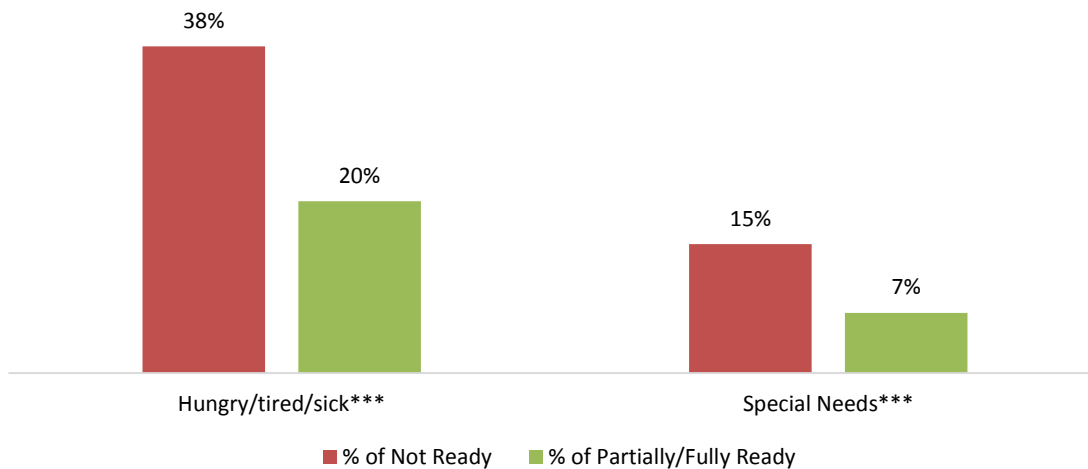
	% of <i>Not Ready</i>	% of <i>Partially/Fully Ready</i>	N
Mother no more than high school***	49%	26%	1288
Family earns under \$35,000***	78%	77%	1125
Single parent family***	31%	17%	1290

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

Note: *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Children who were *Not Ready* were significantly more likely to come to school tired, sick, or hungry, and were also more likely to have a diagnosed special need.

Figure 20. **Health and Development of Children who were *Not Ready***

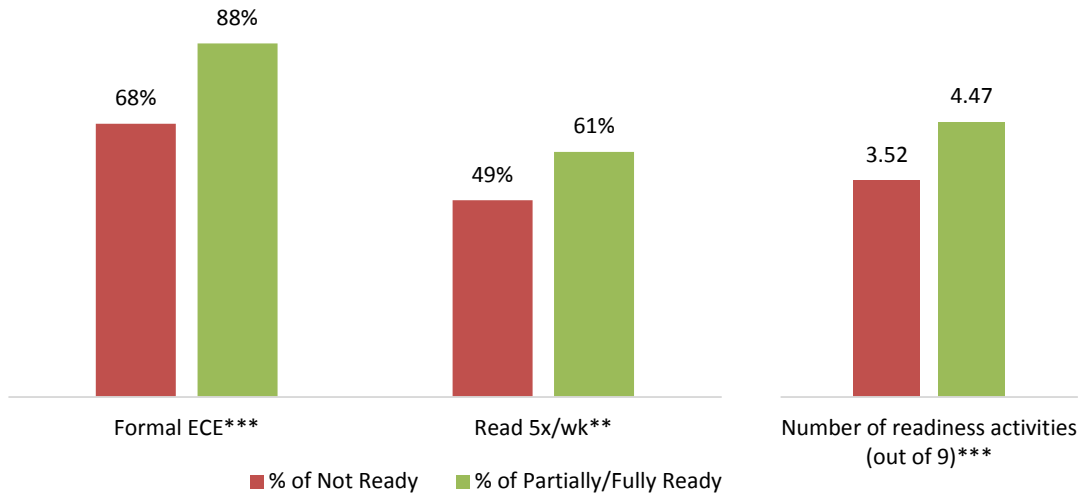


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)

Note: N=1449-1459. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

In contrast, children who had preschool, TK, or licensed family care experience were less likely to have low scores across domains. Likewise, children who read with their parents at least five times per week, and those who engaged in school readiness activities with their families prior to kindergarten entry, such as working on school skills, visiting the elementary school, and meeting the kindergarten teacher, were less likely to be *Not Ready*.

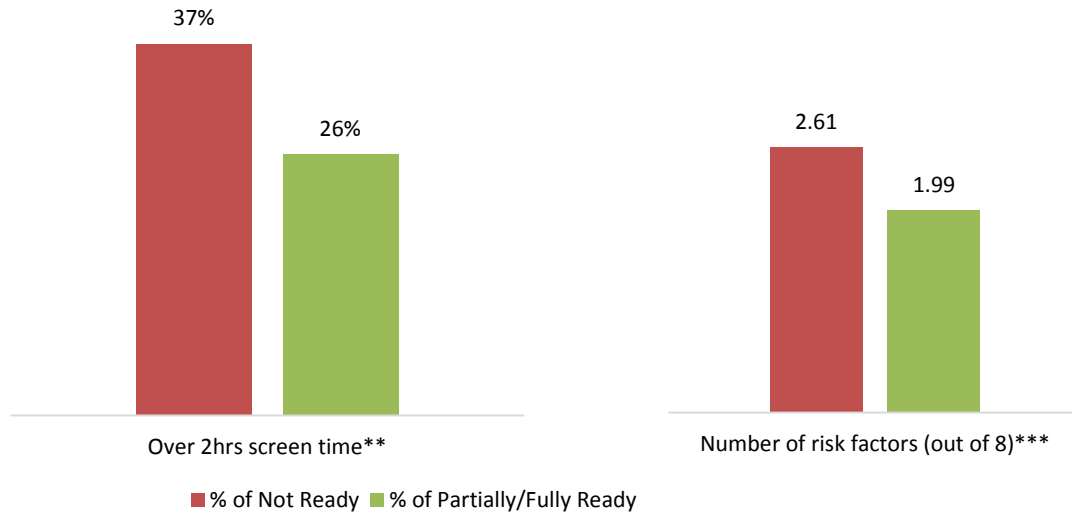
Figure 21. **Early Enrichment Experiences of Children who were *Not Ready***



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1257-1415. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Conversely, children who were *Not Ready* were more likely to be exposed to over two hours of screen time per day. They also had a higher number of family risk factors, including housing instability, living in an unsafe neighborhood, and being socioeconomically disadvantaged (see next section for more details on these risk factors). They were also more likely to be a participant in First 5 Alameda’s Help Me Grow or home visiting programs, suggesting F5AC is serving a high-risk, high-need population.

Figure 22. **Screen Time and Number of Risk Factors among Children who were *Not Ready***



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1211-1328. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Section Summary

- The following factors were most predictive of children’s readiness for school:
 - Health and well-being (not being hungry, tired, or sick).
 - Preschool, licensed family child care, or Transitional Kindergarten (TK).
 - Age (being older).
 - Not being diagnosed with special needs.
 - Fluent in English (not an English Learner).
 - Girls (more ready for school than boys).
 - Race/ethnicity (not Black/African American).
 - Higher family income.
 - Higher maternal education.
 - Spending less time watching TV or playing video/computer games.
 - Multi-parent household.
- The more positive predictors of readiness the child has, the higher his or her readiness levels.
- Children who were *Not Ready* had a higher number of risk factors (such as experiencing housing instability, living in an unsafe neighborhood, and being from a low SES family), but fewer positive predictors of readiness (such as formal early education experience).

Kindergarten Students and Families in the 2015 Readiness Study

The 2015 Readiness Study Sample: Predictors of Readiness

The charts in this section describe the sample in terms of the significant predictors of readiness: health and well-being; preschool, licensed family child care, and Transitional Kindergarten attendance; age; diagnosed special needs; English Learner status; gender; race/ethnicity; family income; mother's education; time spent watching TV or playing video/computer games; and single parenthood.

Demographics

The sample was evenly divided between males and females, and children were 5.5 years old on average when they enter kindergarten. According to teachers, 40% were English Learners. Seventy-three percent of the sample spoke English as a preferred language⁶, while 28% spoke Spanish. Small percentages spoke other languages.

Figure 23. **Students' Gender, Age, and English Learner Status**

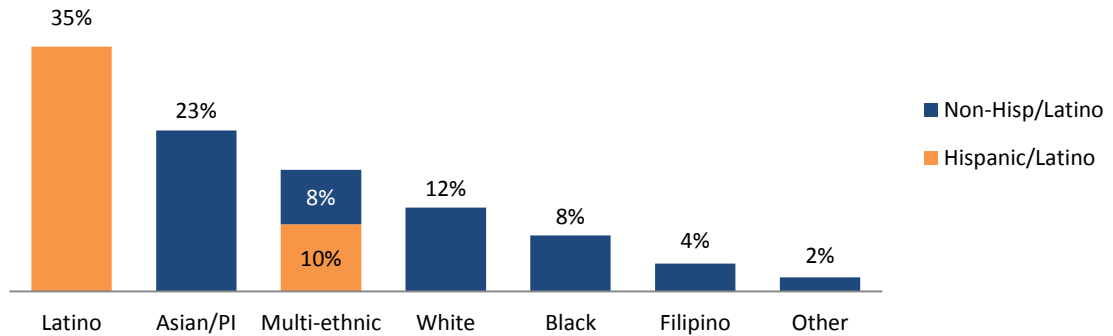
	Percent of students
Gender	
Boys	50%
Girls	50%
Age (average age = 5.5 yrs)	
Under 5 ½ years	47%
At least 5 ½ and less than 6 years	47%
6 years and older	6%
English Learner	40%
Not an English Learner	60%

Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
Note: N=1,529 (gender), 1,530 (age), 1,686 (EL).

Hispanic/Latino students comprised the largest racial/ethnic group in the sample – 45% were Hispanic/Latino of any race. Thirty-five percent were Hispanic/Latino and no other race or ethnicity, while another 10% were Hispanic/Latino and another race/ethnicity. Twenty-three percent of students were Asian/Pacific Islander, 12% were white, 8% were African American or black, and 4% were Filipino. Eighteen percent of students were of mixed racial/ethnic background, just over half of whom were Hispanic/Latino and another race. Other racial/ethnic groups made up the remaining 2% of the sample.

⁶ A small proportion of English-speaking children were also English Learners, likely because they also spoke another language at home.

Figure 24. **Percent of Kindergarten Students of Each Race/Ethnicity**

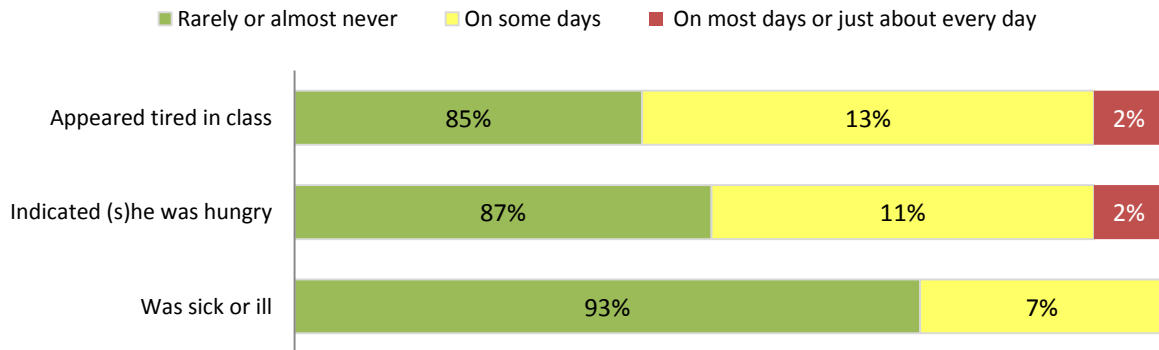


Source: Kindergarten Observation Form (2015)
 Note: N=1,527. Percentages may not sum to 100 due to rounding.

Physical Health and Well-Being

To better understand the health and well-being of entering kindergarten students, teachers were asked to report how frequently each child indicated s/he was hungry, appeared tired in class, and was sick or ill. As the figure below shows, nearly all students were healthy, but about 15% exhibited some well-being concerns on at least some days.

Figure 25. **Teacher Reports of Children's Well-Being**



Source: Kindergarten Observation Form (2015)
 Note: N=1,519. Proportions under 1% are not labeled.

Special Needs

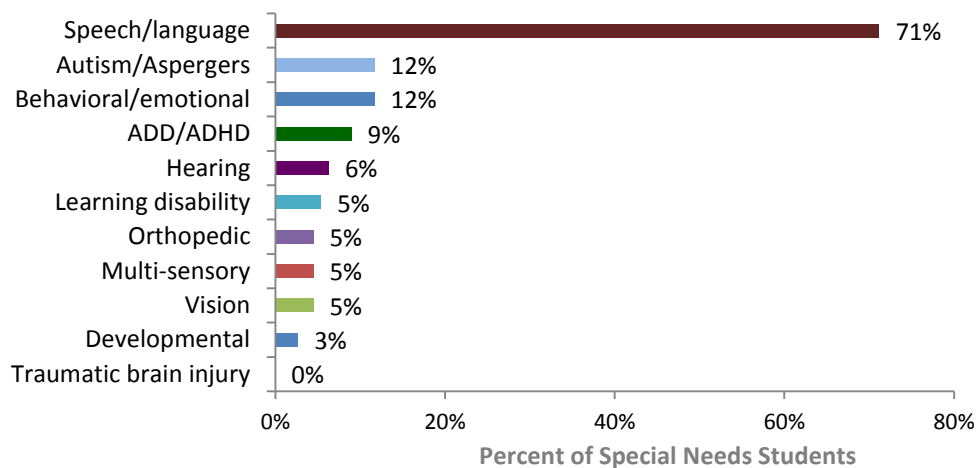
Both parents and teachers were asked about children's special needs⁷. According to parents and/or kindergarten teachers, 8% of children had a special need diagnosed by a professional. Another two percent were suspected to have a special need by a parent or teacher. Most parents of special needs

⁷ 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.

children – including 88% of those with diagnosed special needs, and 56% of those *suspected* of having special needs – had sought treatment for their children. The average age at diagnosis was 3.0 years old.

Parents and teachers who indicated that a child had a special need were asked to describe that special need. As shown in the figure, speech and language challenges were the most common concerns among children with diagnosed special needs, affecting 71% of students with special needs. Other, less common concerns included autism-related challenges, behavioral and emotional difficulties, and attention deficit and/or hyperactivity challenges.

Figure 26. **Types of Special Needs, as Reported by Parents***



Source: Parent Information Form (2015)

Note: N=120 children with special needs. Parents could indicate more than one special need.

*Among students considered to have a special need, based on diagnosis or IEP.

Maternal Education, Family Income, and Single Parenthood

Previous research has identified a school readiness gap based on family socioeconomic status that often widens over time (e.g., Crosnoe & Cooper, 2010; Halle et al., 2009; Ryan, Fauth, & Brooks-Gunn, 2006). As in the current study, other research indicates that children born to less educated parents and to poorer families have significantly lower readiness levels than their peers with more educated and affluent parents. The children in the sample lived in families that were somewhat poorer but similarly educated in comparison to Alameda County as a whole⁸. Half of all children in the study came from families making under \$50,000 per year. In contrast, the median household income in the county overall was \$73,775 (meaning that 50% of families earned above this amount and 50% earned below this amount). In addition, 48% of mothers had earned a college degree (associate’s or higher), as compared to 49% across the county at large. Approximately one-fifth of the parents considered themselves a single parent.

It should be noted, that these three factors – maternal educational attainment, family income, and single parenthood – were highly correlated with one another, though each contributed independently to readiness. There are other characteristics also correlated with these factors that help explain their

⁸ U.S. Census, 2010-2014 American Community Survey 5-Year Estimates

contribution to readiness, including parental job loss, not reading with the child regularly, living in a neighborhood that the parent feels is unsafe, and housing instability.

Figure 27. **Maternal Educational Attainment, Family Income, and Single Parenthood**

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

Source: Parent Information Form (2015).
Note: N=1309-1320.

Amount of "Screen Time"

The American Academy of Pediatrics (AAP, n.d.) recommends that young children get no more than two hours of "screen time" per day, which includes time spent watching television or videos or playing video or computer games. Furthermore, we found that children exposed to more screen time had lower readiness levels than those exposed to less screen time during the week.

On average, children spent over two hours per day watching TV or playing video games, more than the amount recommended by American Academy of Pediatrics.

On average, children in this assessment spent over two hours per day on "screen time" activities (mean=128 minutes, N=1,289). The average screen time on weekdays was 116 minutes per day, and on weekends it was 161 minutes. Forty-one percent of children in this sample were spending more than the recommended two hours per day on screen time activities, according to parents.

Preschool and Other Early Care 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, 2015).

As the figure below shows, about four out of five children (83%) attended either licensed preschool or childcare center, licensed family child care, or Transitional Kindergarten (TK) in the year prior to kindergarten. Sixty-five percent attend preschool or a childcare center and 22% attended TK. In addition, 5% of

students received care in licensed family child care.

Notably, the percentage of children that were reported as having attended TK rose substantially between 2013 and 2015, from 7% to 22%. Although attending TK was associated with higher readiness levels, its effect was no greater or less than that of preschool or family care attendance.

Figure 28. Students' Early Care Experiences

Type of Child Care Arrangements in the Year Prior to Kindergarten	Percent of students
Preschool, licensed family care, or TK	83%
Licensed preschool or childcare center (e.g., Head Start, State Preschool, private)	65%
Transitional Kindergarten	22%
Licensed family child care	5%

Source: Kindergarten Observation Form (2015), Parent Information Form (2015). Teachers' and parents' reports of children's early care experiences were consolidated into a single response.

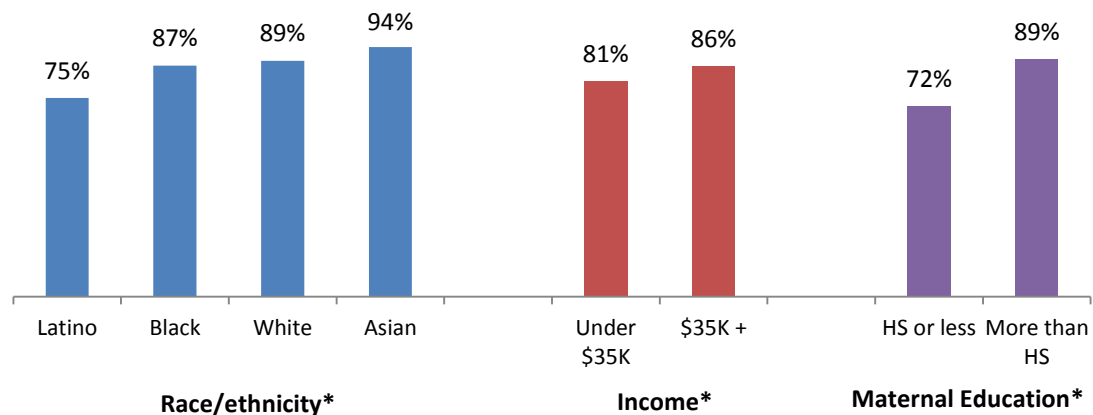
Note: N (from top to bottom) = 1,483, 1,466, 1,405, 1,500. Percentages sum to more than 100 because more than one source of care could be selected.

Children exposed to formal early education came from more affluent, educated families. Early education experience rate also were highest among Asians.

Preschool attendance has been shown in countless studies to be strongly related to enhanced school 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 figure below disaggregates preschool, family care, and TK attendance by various child and family characteristics, including race/ethnicity,

income, and maternal education. As the figure shows, Hispanic/Latino students had the lowest attendance rates (75%), while Asian students were most likely to have attended formal early child care (94%). Preschool, family care, or TK attendance was also associated with income and maternal education; children with more affluent parents and more educated mothers were more likely to have had formal early education experience.

Figure 29. **Percent Attending TK, Preschool, or Licensed Family Care, by Child/Family Demographics**



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

Note: N=533 (Latino), 117 (Black), 177 (White), 346 (Asian), 1,309 (income), 1,345 (education). Includes TK, licensed preschool or family care.

*Differences between groups are statistically significant ($p < .05$).

For Future Exploration: Preschool Quality and Transitional Kindergarten

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 2015 School Readiness Assessment were matched to QRIS ratings of the site they attended, wherever possible. This resulted in a subsample of 195 children whose preschool or family child care site (as reported by their parents) could be matched to a QRIS-rated site. Controlling for key child and family factors, however, we found no significant differences in readiness scores based on the program's QRIS rating, nor in the assessment scores used to produce the QRIS rating.

A 2015 report on QRIS in California (Quick et al., 2015) offers some potential explanations for the lack of relationship between QRIS scores and school readiness. This report found that, across the state, most sites at the time of their study were Tier 3 or Tier 4. Similarly, most of the sites in the Alameda County School Readiness Assessment analysis were Tier 4, limiting our ability to compare readiness levels of children attending sites of varying quality ratings. The California report also found that QRIS ratings were not consistently related to other, independent measures of classroom quality. Additional research is needed locally and statewide to establish the link between QRIS ratings and school readiness.

Similarly, additional research is needed regarding the relationship between Transitional Kindergarten and readiness. In the 2015 Alameda County SRA study, 22% of kindergarten students were reported by their teachers or parents as having attended TK in the prior year, triple that of the 2013 sample, when 7% of children were reported as having attended TK. This boosted the percentage of children who had a formal early education experience from 67% in 2013 to 83% in 2015. Although children who attend TK tend to have higher readiness scores than their peers, we found no evidence that TK impacted on readiness above and beyond the effects of preschool. In contrast, other studies (e.g., Quick et al., 2015) suggests the positive impact of TK on readiness is greater than the impact of preschool. Further research

can help determine the unique contribution of TK to children’s readiness for kindergarten, but it appears to have played an important role in providing children in Alameda County with formal early educational experiences.

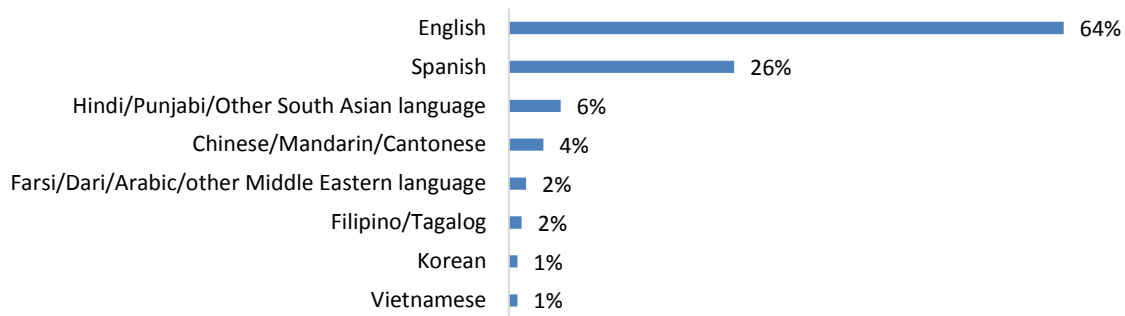
The 2015 Readiness Study Sample: Other Key Characteristics of Children and Families

In addition to the characteristics of children and families that were predictive of readiness, the *Kindergarten Observation Form* and *Parent Information Form* gathered information on other important child and family characteristics and experiences, described below.

Home Languages

Parents were asked on the *Parent Information Form* to indicate the language they used most often at home with their child. English (64%) and Spanish (26%) were the most commonly used languages reported by parents. At least 10% of parents reported speaking more than one language “most often” at home, likely indicating they spoke those languages with equal frequency.

Figure 30. **Home Languages**

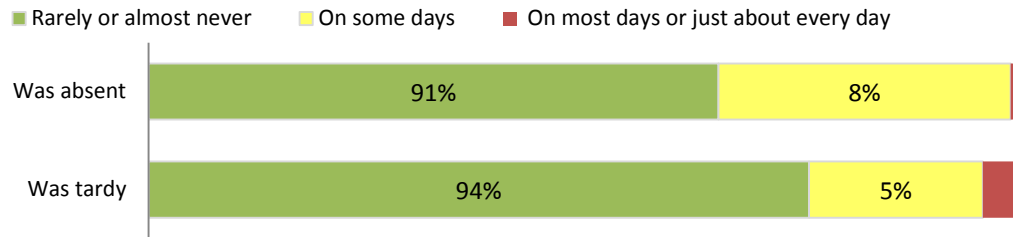


Source: Parent Information Form (2015)
N=1,391. Percentages add to more than 100% because 10% of parents speak more than one language at home with equal frequency.

Attendance Concerns

Teachers indicated the extent to which children were absent or tardy in the first few weeks of school. Approximately 10% of children in the sample were absent on at least some days, but only 6% were tardy frequently.

Figure 31. **Frequency of Attendance Concerns**



Source: Kindergarten Observation Form (2015)
 Note: N (from top to bottom) =1,519. Proportions under 1% are not labeled.

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 (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, 8% 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 (56%) were covered by private insurance, while 45% were insured by Medi-Cal.

Parents 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 91% had a regular dentist. Ninety-three percent of children had been to a dentist in the last year, 70% had received a hearing exam, while 74% had received a vision exam. Twenty-three percent had received a developmental screening in the year prior to the readiness assessment.⁹

Figure 32. **Children’s Access to and Use of Health Care**

Use of Health Care	Percent
Health Insurance	
<i>Private insurance*</i>	56%
<i>Medi-Cal*</i>	45%
<i>No insurance</i>	1%
Has a regular doctor, pediatric provider, or clinic	98%
Has had a dental exam in the past year	93%
Has a regular dentist	91%

⁹ In the previous assessment in 2013, 40% of children were reported as having received a developmental screening. It is not clear what is responsible for this decline from 40% to 23%. However, low-income families tended to be more likely to report that their child was screened than high-income families, and there were fewer low-income families in the sample in 2015.

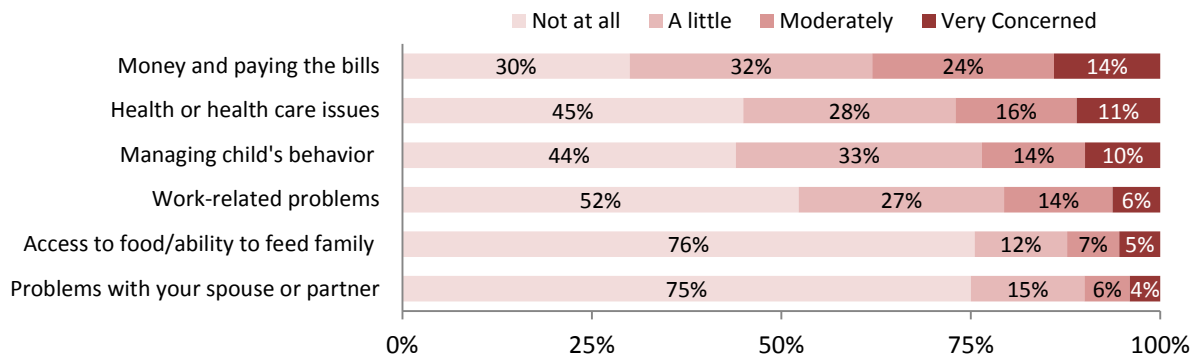
Use of Health Care	Percent
Has had a vision exam in the past year	74%
Has had a hearing exam in the past year	70%
Has received a developmental screening in the past year	23%

Source: Parent Information Form (2015)
 Note: N=1,366 (insurance), 1,357 (doctor), 1,360 (dentist), 1,331 (screenings).
 *Some parents indicated both Medi-Cal and private insurance coverage.

Potential Sources of Parent and Family Stress

Parents also indicated their experiences with various types of family concerns. The greatest degree of concern was reported around financial issues. Over a third of parents (38%) reported being either moderately or very concerned about “money and paying the bills.” In addition, about a quarter of parents reported being moderately or very concerned about health or healthcare issues, or managing their child’s behavior. Work-related problems, access to food, and problems with a spouse or partner were of less concern to parents in comparison to other issues.

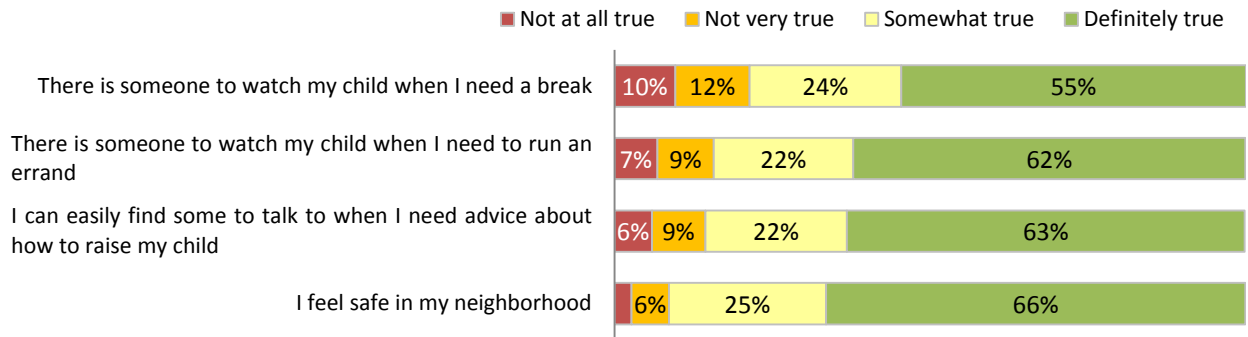
Figure 33. **Parent Reports of Family and Domestic Concerns**



Source: Parent Information Form (2015)
 Note: N=1,315 -1,334.

The *Parent Information Form* included a set of questions to assess parents’ perceptions of being supported in their parenting and the safety of their neighborhoods. The figure below shows that some parents felt they needed additional social support related to parenting. About one in five parents felt there was *not* usually someone to watch their child when they needed a break (22%) or needed to run an errand (16%). Fifteen percent did not think it was easy to find someone to talk to when they needed advice about parenting. On the other hand, less than 10% of parents felt unsafe in their neighborhood. However, parents in the Oakland were much more likely to report neighborhood safety concerns compared to parents in other districts. Nearly 23% of parents in Oakland said that they felt unsafe in their neighborhood.

Figure 34. **Parents' Perceptions of Support and Safety**

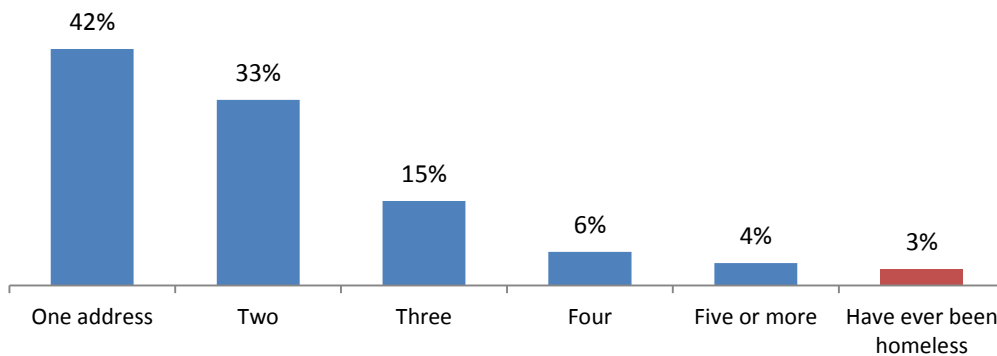


Source: Parent Information Form (2015)
 Note: N (from top to bottom) = 1,350, 1,335, 1,344, 1,338.

Housing Instability: Family Mobility & Homelessness

To measure family mobility, parents were asked how many addresses they had lived at since the birth of their child. On average, families had lived at two addresses (mean = 1.96). In addition, 3% of children and their parent(s) had experienced homelessness at some point in the child's lifetime.

Figure 35. **Number of Addresses Since Child's Birth & Homelessness**



Source: Parent Information Form (2015)
 Note: N=1,482. Percentages may not sum to 100 due to rounding.

Housing instability (i.e., having at least three addresses since the child was born or experiencing homelessness) was an issue for 27% of families (23 families – or about 1% of the sample – had been homeless and had three or more addresses). Families experiencing housing instability were more likely to have other risk factors as well. For example, they were more likely to be low-income and headed by a single parent. Children in these families also were less likely to have a regular doctor or dentist. Additionally, the parents in these families indicated they had fewer parenting supports (e.g., someone to watch their children when they need to run an errand or need a break) and reported more stress (regarding money, health, work, their spouse/partner, and accessing food). Not shown in the table are family risk factors that were not significantly associated with housing stability: low maternal education and parent perception that their neighborhood is unsafe.

Figure 36. **Relationship between Housing Instability and Other Risk Factors**

	Experienced housing instability	No housing instability
Low-income (<\$35K)	42%	36%
Child does not have regular doctor or dentist	14%	7%
Single parent	26%	17%
Parent support index (range=0-3)	2.22	2.33
Parent stress index (range=0-3)	.76	.67

Source: Parent Information Form (2015)

Note: N=1,301-1,325. Percentages may not sum to 100 due to rounding. *Statistically significant, p<.05

Family Risk Factors

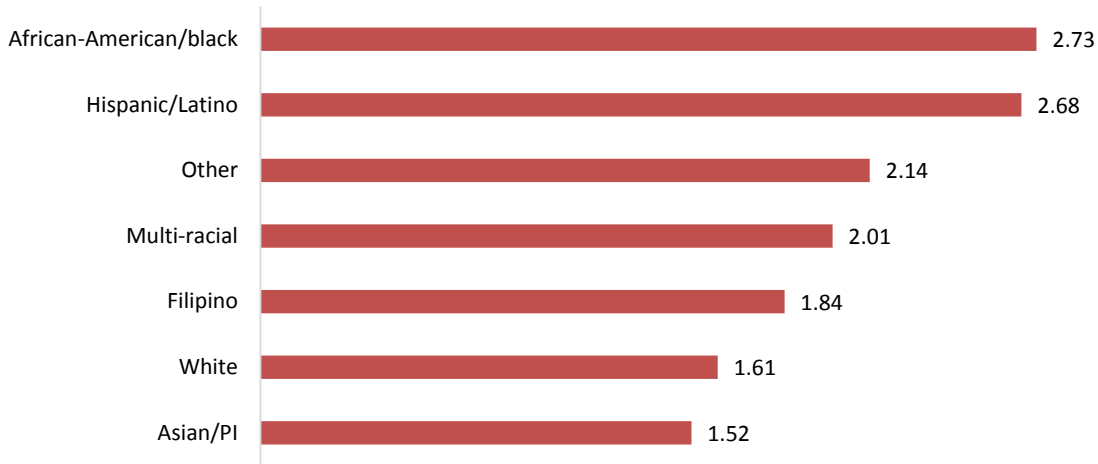
A composite measure of risk factors in children’s family life was created using eight variables that measured exposure to challenging home or neighborhood circumstances¹⁰. The composite measure included:

- 1) **Parent concerns about domestic issues** (i.e., concern about money and paying bills, work-related problems, problems with spouse/partner, and problems accessing food);
- 2) **Lack of parent support** (i.e., parent does not have someone to watch the child when s/he needs to run an errand, parent does not have someone to watch the child when s/he needs a break, and parent does not have someone to talk to when s/he needs advice about parenting);
- 3) Perceived lack of **neighborhood safety**;
- 4) **Housing instability** (either frequent moves or homelessness);
- 5) **Low-income** (family earns under \$35,000 per year);
- 6) **Low maternal education** (mother has no more than high school education);
- 7) **Single parent**;
- 8) Child has **no regular doctor or dentist**.

Each of these factors was coded into a binary variable (i.e., has the risk factor or does not) and added together to create a risk scale that went from 0 to 8. On average, families had two of the risk factors. However, the number of risk factors a family had varied by their race/ethnicity. Hispanic/Latino and African-American/black families had a significantly higher number of risk factors compared to other families in the sample.

¹⁰ These variables were derived from a review of the factors strongly associated with school readiness, and discussion between ASR and F5AC of risk factors of interest to stakeholders in the county.

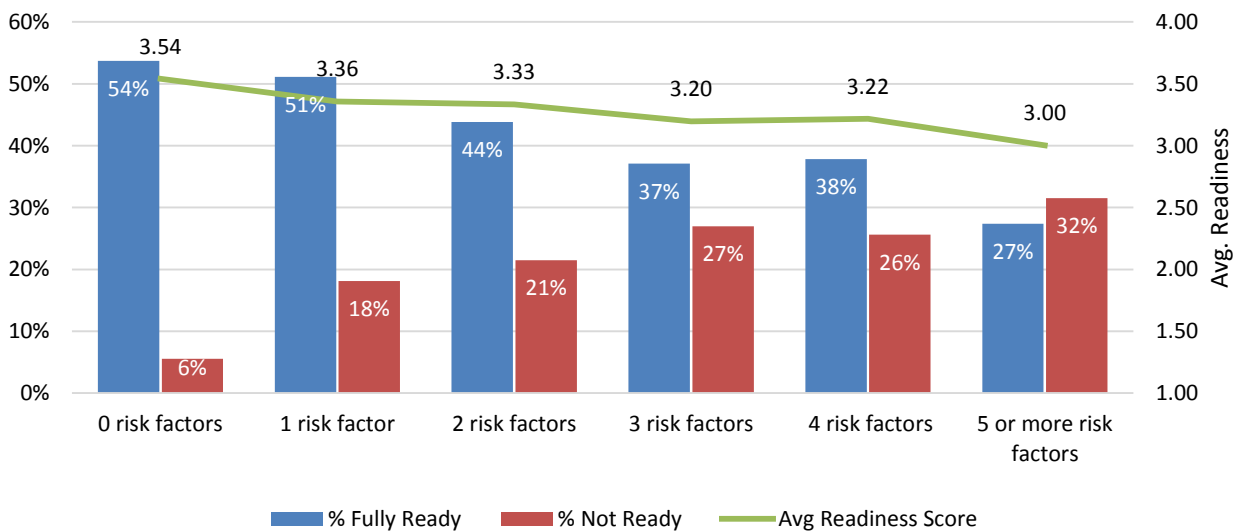
Figure 37. **Average Number of Risk Factors, by Race/Ethnicity**



Source: Parent Information Form (2015)
 Note: N=1,388. ***Differences statistically significant, $p < .001$.

As seen in the chart below, the greater number of risk factors the family had, the lower the child’s readiness score. Families with no risk factors had children with an average overall readiness score of 3.54 out of 4, and 54% of these children were *Fully Ready* for school. In contrast, those with at least five risk factors had children with an average score of 3.00, and just 27% of these children ready. The relationship between risk factors and readiness was significant, even after controlling for other child characteristics and experiences, such as gender, race/ethnicity, English Learner status, preschool attendance, and whether the child has special needs.

Figure 38. **Readiness, by Risk Factors**



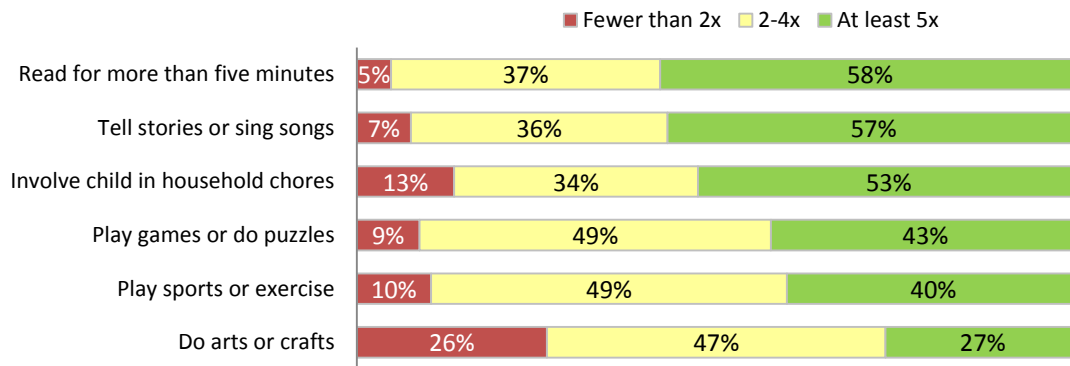
Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1,388. *Statistically significant, $p < .05$.

Family Activities & Routines

To better understand families' routines and activities, parents 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.

The majority of families reported that they regularly involved the child in reading for more than five minutes, household chores, and told stories or sang songs. Families engaged in other activities (e.g., playing sports or doing arts and crafts together) less frequently.

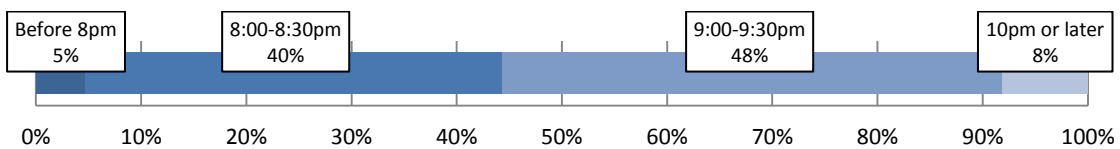
Figure 39. **Frequency of Family Activities per Week**



Source: Parent Information Form (2015)
Note: N=1,214-1,311.

The majority of children in the assessment (88%) had bedtimes during weeknights between 8:00pm and 9:30pm, but 8% went to bed at 10:00pm or later.

Figure 40. **Weeknight Bedtimes**



Source: Parent Information Form (2015)
Note: N=1,367.

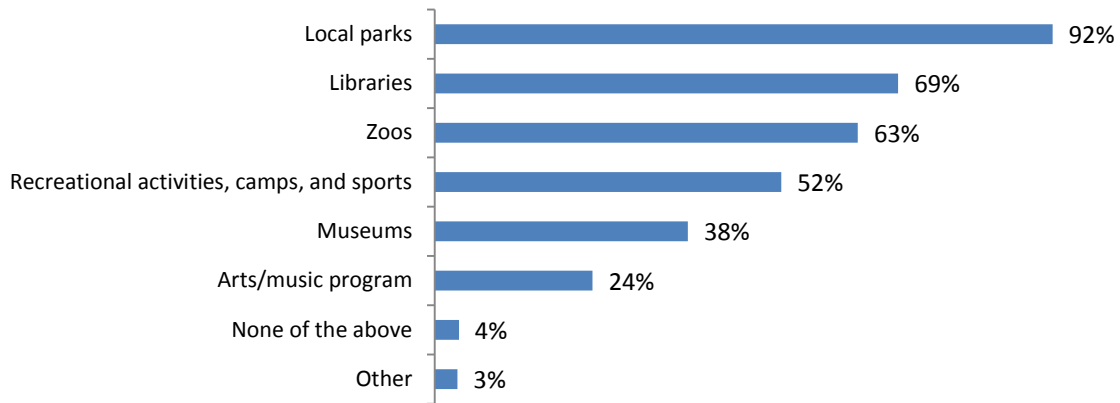
Use of Local Family Resources

Parents indicated whether they had ever used any of six local family resources listed on the *PIF*, including local parks; libraries; recreational activities, camps and sports; local museums; zoos; and arts/music programs. The most widely used resources were local parks (92% of families), followed by libraries and zoos (utilized by 69% and 63% of families,



respectively). Far fewer families reported attending arts and music programs or going to local museums.

Figure 41. **Percent of Families Using Local Resources**

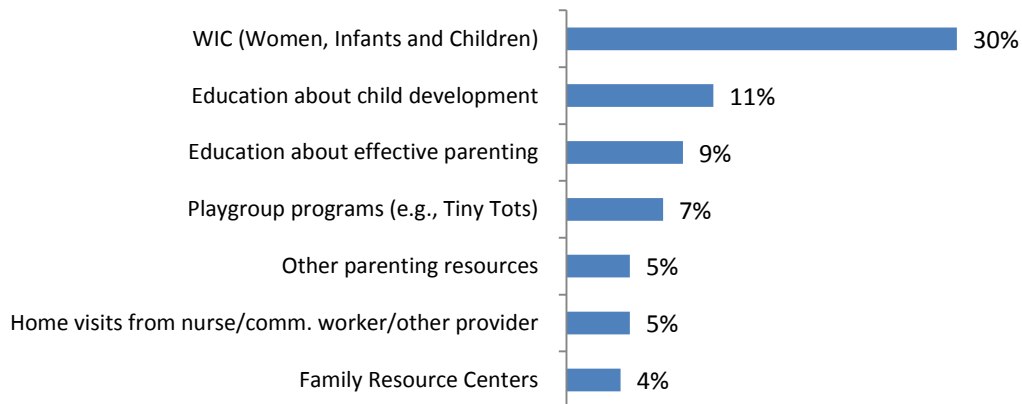


Source: Parent Information Form (2015)
Note: N=1,541.

Use of Parenting Programs, Services, and Supports

Parents were also surveyed about their use of a variety of parent programs and services. The most commonly used parenting resource was 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 said they had participated in WIC. Roughly one in ten parents 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. **Percent of Families Using Parenting Programs, Services, and Supports**



Source: Parent Information Form (2015)
Note: N=1,391.

For Future Exploration: Help Me Grow and Home Visiting

There were 77 children in the sample (5%) who participated in F5AC's Help Me Grow (HMG), a program that supports early screening and intervention. In addition, 46 children in the sample (3%) had participated in F5AC's Home Visiting (HV) program. Combined, there were 115 children that had participated in at least one of these services. Initial analyses indicated the sample is not large enough to draw useful inferences about HMG or HV. Future research with larger samples of participants will allow for a deeper understanding of the effects of these programs.

Section Summary

- Children were **5.5 years old** on average when they enter kindergarten.
- The children assessed in the current study were **ethnically, linguistically, and socioeconomically diverse**. Forty-five percent of students were Hispanic/Latino, and about 40% of students were English Language Learners.
- Much of the sample was **socioeconomically disadvantaged**. Half of all children in the study came from families making under \$50,000 per year. In addition, 31% of mothers had no more than a high school education. Over one third of parents (38%) reported being moderately or very concerned about financial issues and 14% had lost a job in the past year.
- One in five children lived within a **single-parent household**. These parents tended to have other risk factors, including being low-income, having low educational attainment, living in an unsafe neighborhood, and housing instability.
- In contrast to financial concerns, **health issues** were a problem for only a small minority of the sample. Students were generally healthy, though 15% appeared tired in class and 13% were hungry on at least some days.
- Eight 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 (71% of diagnosed students).
- On average, children spent over two hours per day **watching TV or playing video/computer games**, more than the amount recommended by American Academy of Pediatrics.
- Overall, 83% of students had attended some type of **formal early childhood education** (preschool, licensed family child care, or TK) in the year preceding kindergarten. Children whose family incomes and education levels were highest were most likely to have had a pre-kindergarten educational experience such as preschool, licensed family care, or TK.
- Nearly all children had **health insurance** (99%) and a regular **doctor** (98%). Slightly fewer had a regular **dentist** (91%).
- Although about three out of four children had been given a **vision or hearing exam** in the past year, only one in four (23%) children was reported to have received a **developmental screening** in the past year.

- Most parents felt well **supported** with respect to taking care of their children, such as finding someone to watch their child for someone to talk to about raising their child, and parents generally felt **safe** in their neighborhood. However, 22% of parents did not have someone to watch their child when they needed a break.
- Three percent of children have been **homeless** at some point, and 25% have had at least three different home addresses by the beginning of kindergarten.
- Having a greater number of **family risk factors** – including being low income, having low maternal educational attainment, experiencing housing instability, living in an unsafe neighborhood, being a single parent, not having a regular doctor or dentist for the child, reporting stress about domestic issues, and lacking parenting supports – was associated with lower school readiness.
- More than half of all children had **enriching experiences** with family members at home – such as reading together, telling stories and singing songs – for at least five times per week.
- Many parents reported using **family resources and supports**. The most frequently used resources included parks and libraries and WIC.

Transitions to Kindergarten

This section describes the information families received about the transition to kindergarten and the activities they engaged in to prepare their children for school entry. It also examines family characteristics associated with kindergarten preparation.

Families' Exposure to Kindergarten Information and Opportunities

Parents were asked about the types and sources of information they received to better prepare their child for entering kindergarten. Approximately 82% received information about how and when to register their child for school. Seventy percent received general information about how to help children develop skills for kindergarten, 66% received information about how to help their own child prepare for kindergarten, and 60% received general information about child development and parenting. These percentages did not vary significantly by family income or education level.

Figure 43. **Receipt of Information Related to Kindergarten Transition**

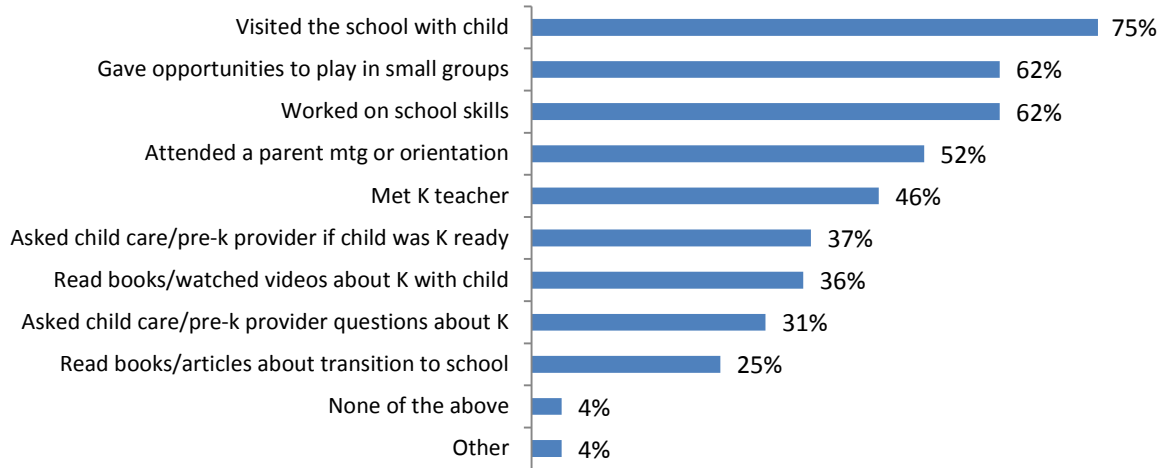
Type of Information	Percent who received
Information about how and when to register child for school	82%
General information about how to develop skills <i>all</i> children need for kindergarten	70%
Specific information about how you could help <i>your child</i> develop skills to be ready for kindergarten	66%
General information about how ready your child was for kindergarten	60%

Source: Parent Information Form (2015)
Note: N=1,310-1,330.

Parents' Engagement in Transition Activities

Parents were also asked to report on kindergarten transition activities they had engaged in prior to the start of school. The majority of parents had visited the school with their child (75%), provided opportunities to play in small groups with other children (62%), and worked on academic skills prior to school entry (62%). About half of all parents had attended a parent meeting or orientation at school.

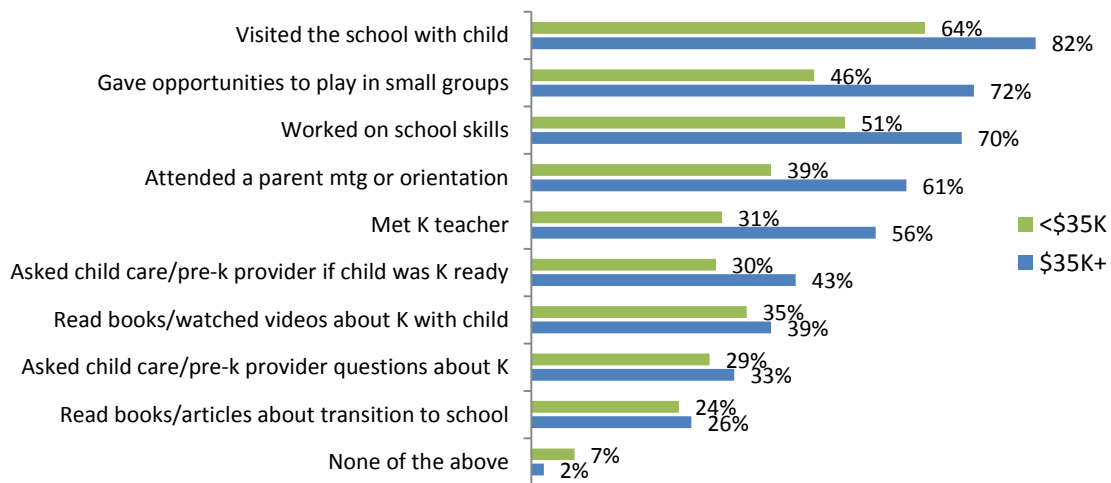
Figure 44. **Percent of Parents Engaging in Transition Activities**



Source: Parent Information Form (2015)
 Note: N=1,369.

As the figure below indicates, low-income parents and families (under \$35,000) engaged in most of these transitional activities less frequently than did mid- and high-income families. Of note, low-income parents were far less likely to provide opportunities for small group play, visit the school with their child, meet the teacher, attend a parent meeting or orientation, or work on school skills.

Figure 45. **Percent of Parents Engaging in Transition Activities, by Income**



Source: Parent Information Form (2015)
 Note: N=1,293.

Section Summary

- Most parents received information about preparing for their child’s transition to school. Socioeconomic status was not a predictor of whether parents received this type of information.

- Parents engaged in a variety of activities to help their child have a smooth transition to school. Three-quarters of parents visited the school with their child before the start of school, 62% worked on school skills with their child, and 62% provided opportunities for their child to play in small groups with other children.
- Low-income families were generally less likely to participate in these transition activities than mid- and high-income families.

Special Section: Race, Risk, and Readiness

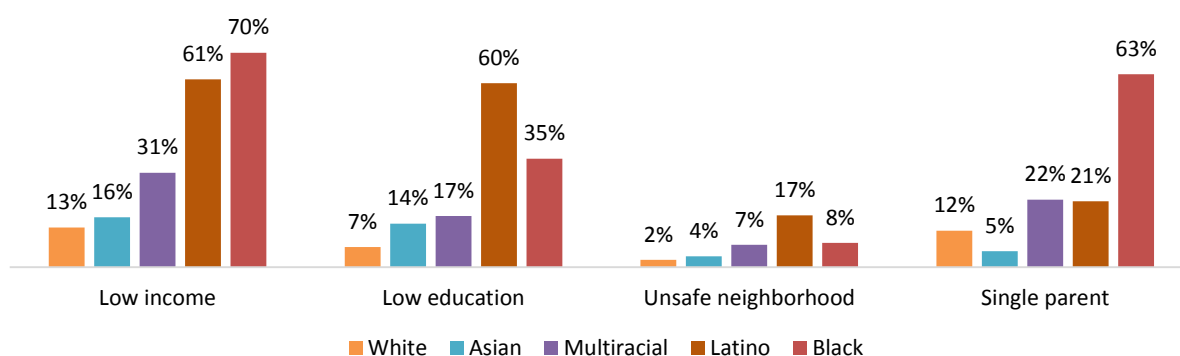
African-American/black children had lower readiness levels than their peers, even after controlling for other child and family factors that contribute to readiness. This finding corresponds with the well-documented achievement gap between African-American/black and non-black students found in the research literature, one which cannot be fully accounted for by other child and family characteristics (see Fryer & Levitt, 2004, 2006). Although additional studies are needed, the research and analyses summarized below help explain the observed readiness differences between African-American/black children and their peers in the Alameda SRA sample.

Racial Differences in Family Background and Early Experiences

To begin understanding why we see racial/ethnic differences in readiness, we explored the various ways in which African-American/black children and their families differed from children and families of other racial/ethnic groups¹¹. The charts below illustrate these differences. Not shown are factors for which African-American/black children *did not* differ from their peers: housing instability, access to a regular doctor or dentist, and preschool attendance.

We found significant racial/ethnic differences in exposure to challenges in the 2015 Alameda SRA sample. For example, African-American/black children in the sample were more likely than their white, Asian, and multiracial peers to come from low socioeconomic circumstances, live in an unsafe neighborhood, and have a single parent. They also tended to come from less advantaged families than Latino children in terms of income and single parenthood.

Figure 46. **Family Background/Environment**

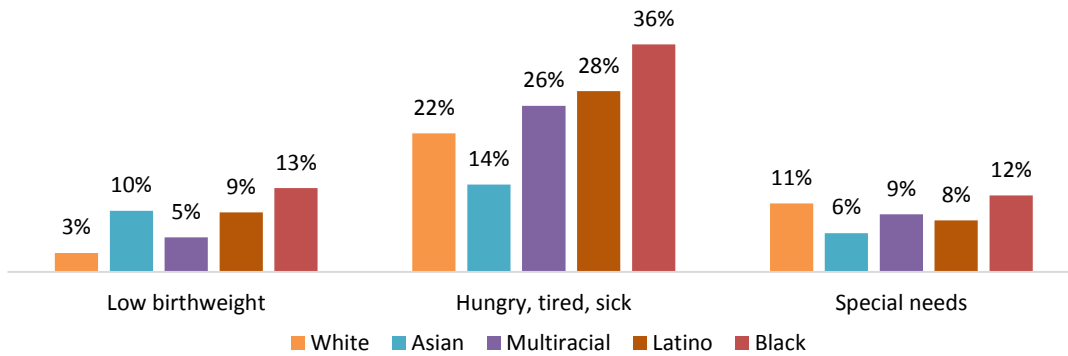


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
Note: N=1309-1350.

African-American/black children had relatively poor health outcomes as well. They were more likely than children from other races/ethnicities to have been born low birthweight, to come to school hungry, tired, or sick, and to have a diagnosed special need.

¹¹ Even though we found differences in readiness after controlling for measured child/family factors, these variables explain some of the racial/ethnic gap in scores.

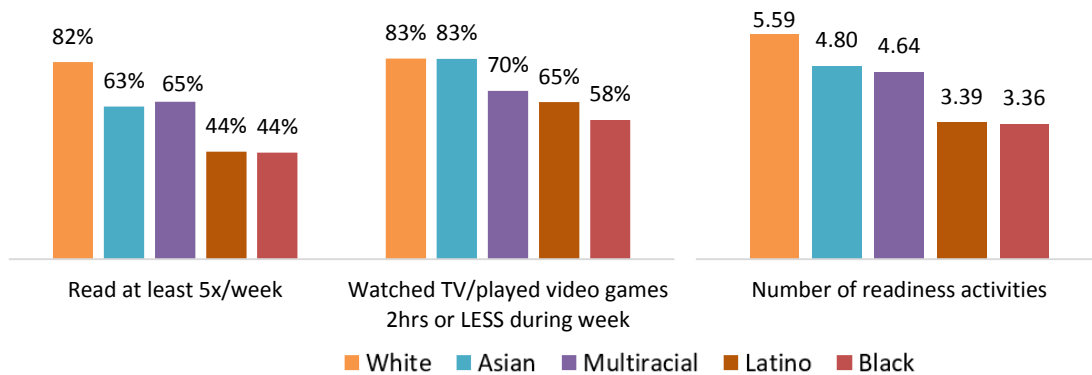
Figure 47. **Child Health Outcomes**



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1315-1526.

Finally, African-American/black children were exposed to fewer enrichments activities at home than white, Asian, and multiracial children: they were less likely to be read to frequently and they engaged in fewer readiness activities with their families. In contrast, they were exposed to more screen time during the week than their peers of other races/ethnicities.

Figure 48. **Home Enrichment Activities**

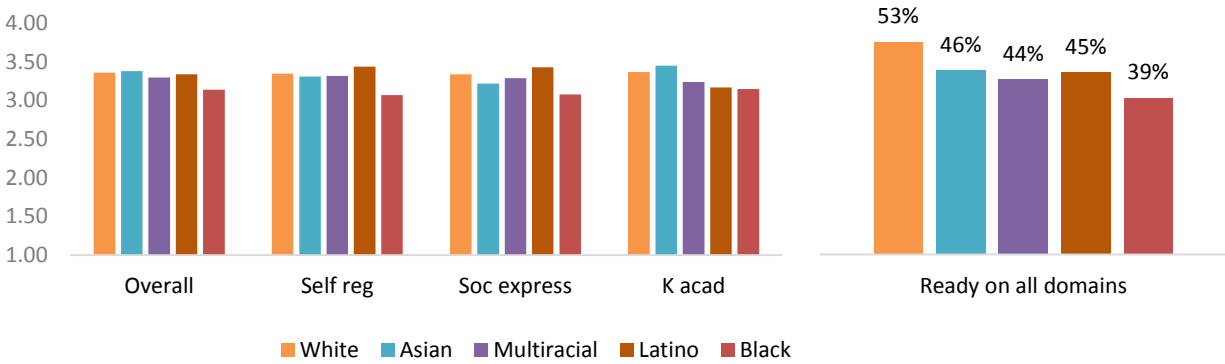


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1265-1369.

Racial/Ethnic Differences in Readiness

Further exploration of racial differences in readiness revealed that African American/black children in the 2015 Alameda SRA sample scored below their white, Asian, and multiracial peers on all domains of readiness. They also scored below Hispanic/Latino children on all domains but *Kindergarten Academics*. Likewise, they were less likely to be *Fully Ready* on all domains than their peers. These patterns of readiness held when controlling for other key child and family characteristics. The fact that differences in readiness remain across domains indicates there is a set of unmeasured variables that account for the racial/ethnic differences in scores.

Figure 49. **Adjusted Readiness Scores and Percent Fully Ready, by Race (Unweighted)**

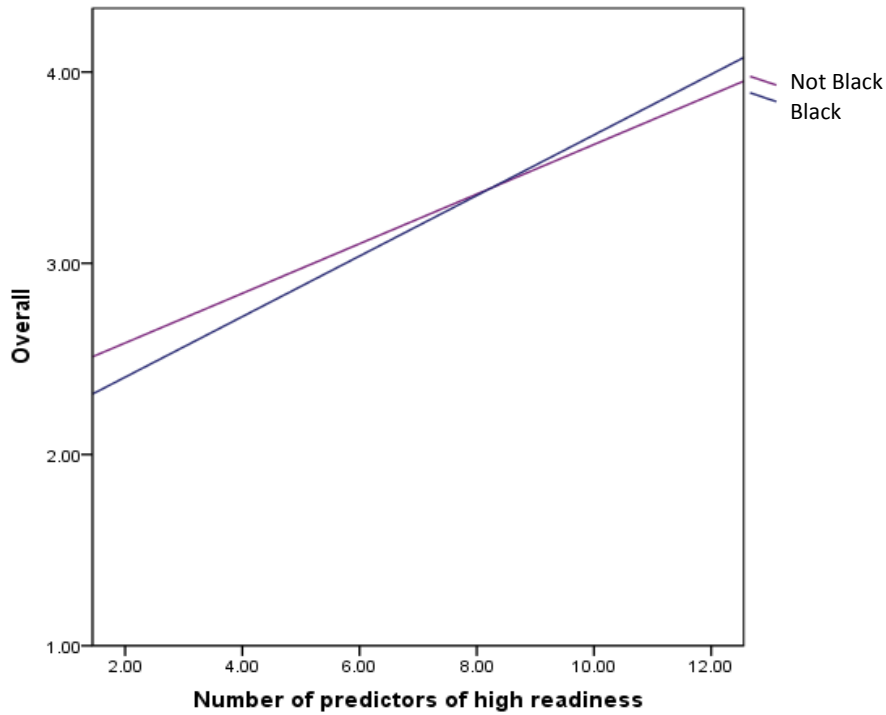


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)

Note: N=1202. Analyses controlled for well-being, gender, age, SES, single parenthood, special needs, EL status, screen time, and formal ECE experience.

Our analyses suggest the readiness gap is not likely explained by errors or bias in teacher ratings. If teachers rated African-American/black children in a biased manner, we might find a weaker relationship between known readiness predictors and readiness within this racial/ethnic subgroup, because teacher bias would be acting as a mediator in that relationship. However, the relationship between positive predictors of readiness and overall scores was the same regardless of the child’s race/ethnicity. For example, being higher-income predicted higher readiness for African-American/blacks, whites, Asians, and Latinos equally. Also, the graph below illustrates that having a greater number of predictors of readiness confers upon African-American/black and non-black children similar advantages. This suggests that although baseline scores tend to be lower for blacks overall, the gap in readiness is reduced or even eliminated for those with a high number of positive predictors of readiness.

Figure 50. Relationship Between Predictors of Readiness and Overall Scores, by Race/Ethnicity

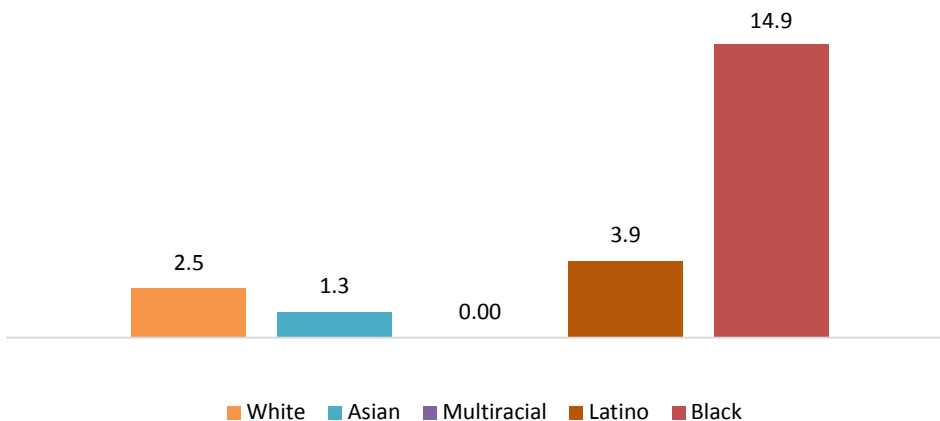


Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
Note: N=1202.

Unmeasured Child/Family Characteristics

The racial/ethnic differences observed in readiness may be related to exposure to difficult early experiences that we were not able to measure. For example, it is possible that African-American/black children in our sample were more likely to be exposed to child abuse or neglect, domestic violence, or other traumatic experiences. Children exposed to trauma are likely to exhibit a range of challenges in regulating their behaviors and emotions (Blank, 2007). Other research similarly suggests that social and emotional health is essential for successful adjustment to school (see Raver, 2003). As mentioned earlier, African-American/black parents were more likely than white and Asian parents to report living in an unsafe neighborhood, but our survey of parents could not fully capture early traumatic exposure in the sample due to the sensitive nature of these experiences. However, as the chart below illustrates, exposure to child maltreatment is significantly higher among Alameda County's African-American/black children than children of other races/ethnicities. Such differences in traumatic experiences are particularly likely to account for racial/ethnic gaps in self-regulation.

Figure 51. **Substantiated Child Maltreatment Rate per 1000 Children 0-5 in Alameda County, 2015**



Source: CA Child Welfare Indicators Project.

Teacher/Classroom Differences in the Racial/Ethnic Readiness Gap

One possible explanation for the observed racial/ethnic readiness gap is a systematic difference between teachers in how they rate their African-American/black students compared to their students of other races/ethnicities. If some teachers were biased in their ratings, we might see systematic differences among teachers in how African-American/black children were scored compared to other children. Instead, we found the relationship between race/ethnicity and readiness, or the gap between African American/black students and other students, was statistically the same across the 89 teachers in the sample.

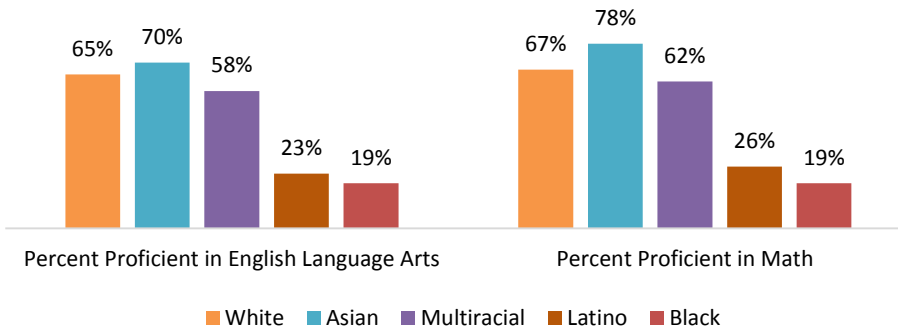
Where there were small differences between classrooms in the readiness gap, they tended to be explained by the racial/ethnic makeup the classroom – gaps were lower for classrooms made up of a high proportion of African-American/black and Latino students, who also have relatively low readiness scores.

It is possible that unmeasured classroom characteristics influenced the racial/ethnic gap in readiness as well. While we did not have information on the teachers in the study, based on Alameda County staffing data, it is likely the majority of teachers in our sample were white¹². It is possible that African-American/black teachers would give relatively higher readiness ratings to African-American/black children than white teachers, but additional research would be needed to confirm this hypothesis.

Similarly, a controlled experiment and use of an objective comparison measure of readiness are needed to establish whether teachers exhibit bias in how they rate their minority students. Other research to test for racial bias has not clearly been shown to disadvantage African-American/black students. For example Ferguson (2003) argues that teachers' perceptions of performance early in the school year tend to be accurate regardless of the race of the student. We did not have a comparison measure to test for bias in our assessment, but third grade standardized test scores in Alameda County from 2014-15 also show a significant racial/ethnic gap in academic proficiency.

¹² In 2014-15, 65% of Alameda County teachers were white; just 8% were black.

Figure 52. **Percent of 3rd Graders in Alameda County Proficient in Math and ELA, 2014-15**



Source: CA Department of Education.

Section Summary

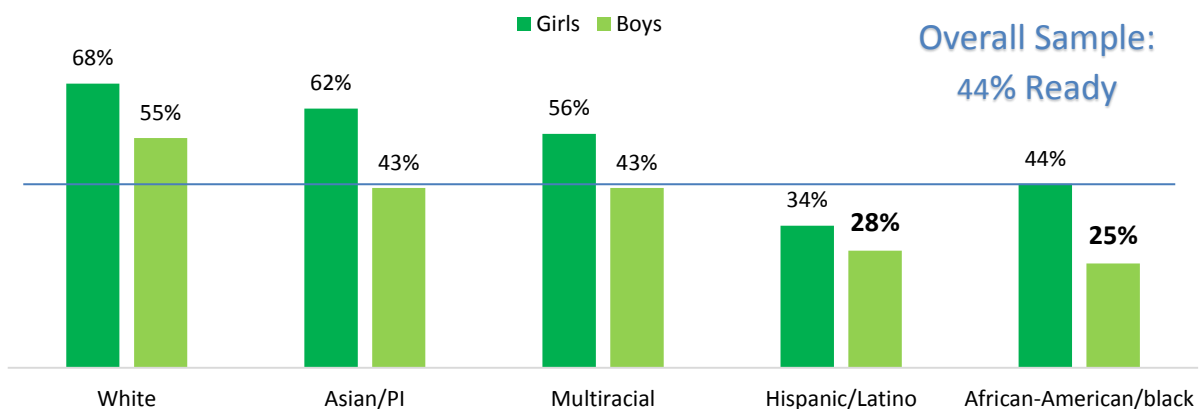
- African-American/black children had lower readiness levels compared to their peers in all domains of readiness. But African-American/black children also differ from their peers in terms of child and family risk factors measured by the readiness assessment, and these factors contribute greatly to gaps in readiness.
- There are likely other child and family factors that explain differences in readiness, but are not measured by the readiness assessment, such as exposure to trauma.
- Our analyses suggest teachers in the study were consistent, reliable observers of readiness. Readiness ratings could be related to the race/ethnicity of the teacher, but more research is needed to test this hypothesis.
- Other objective tests of achievement used in Alameda County show racial/ethnic gaps similar to what was found in the 2015 readiness assessment.

Special Section: Readiness of Boys of Color

Although both African-American/black boys and girls had lower readiness than their peers, gender was also a significant predictor of readiness in the 2015 Alameda County SRA sample. That is, being a boy and African-American/black were both associated with significantly lower readiness levels, after holding constant other child and family factors. This section further explores the relationship between gender and race/ethnicity, other risk factors, and readiness.

The chart below illustrates the disparities in readiness by gender and race/ethnicity. Hispanic/Latino and African-American/black children of both genders had lower readiness scores than white, Asian/Pacific Islander, and multiracial children, but boys of color (i.e., defined here as Hispanic/Latino and African-American/black boys) had by far the lowest readiness scores. Although 44% of children overall were *Fully Ready*, just one-quarter of African-American/black boys, and 28% of Hispanic/Latino boys met this benchmark¹³.

Figure 53. Percent Fully Ready, by Race/Ethnicity and Gender



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=1458.

To better understand why boys of color have lower readiness scores, the table below shows other demographic, developmental, and family risk factors that these children also tend to have. For example, boys of color are significantly more likely to come from families of lower socioeconomic status and that are headed by a single parent. These children are also more likely to be English Learners, to have a diagnosed special need, and to come to school hungry, tired, or sick on at least some days. In addition, their parents were more likely to feel unsafe in their neighborhood. Not shown are factors that were not significantly different between boys of



¹³ Interestingly, the proportion of African-American girls who were *Fully Ready* was the same as the proportion for the overall sample, further highlighting the unique disadvantage boys in this ethnic group experience. Hispanic/Latina girls were also more likely to be *Fully Ready* than their male peers, but the rate at which Hispanic/Latina girls were *Fully Ready* was below that of the overall sample.

color and their peers, including being younger, experiencing housing instability, parental reports of stress or lack of support, and not having a regular doctor or dentist.

Figure 54. Boys of Color and Other Demographic, Developmental, and Family Risk Factors

	Boys of color	Girls/boys of other races
Low-income (<\$35K)	63%	32%
Low maternal education (HS or less)	58%	24%
Parent feels unsafe in the neighborhood	15%	7%
Has a single parent	29%	17%
English Learner	61%	35%
Has special needs	14%	7%
Hungry/tired/sick on at least some days	35%	21%

Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N (from top to bottom) =1,309; 1,345; 1,350; 1,346; 1,513; 1,527; 1,517. **Differences statistically significant p<.01.

In addition to having other demographic, developmental, and family risk factors, boys of color were less likely to have had formal early care and other early enrichment experiences. Nearly one-quarter of boys of color had no preschool, licensed family child care, or Transitional Kindergarten, compared to 15% of other children in the sample. Additionally, over half of the boys of color in the sample did not read or tell stories and sing songs with their families at least five times per week. Their parents also engaged in fewer kindergarten transition activities (e.g., working on school skills, visiting the school, and meeting the child’s teacher) compared to the parents of other children.

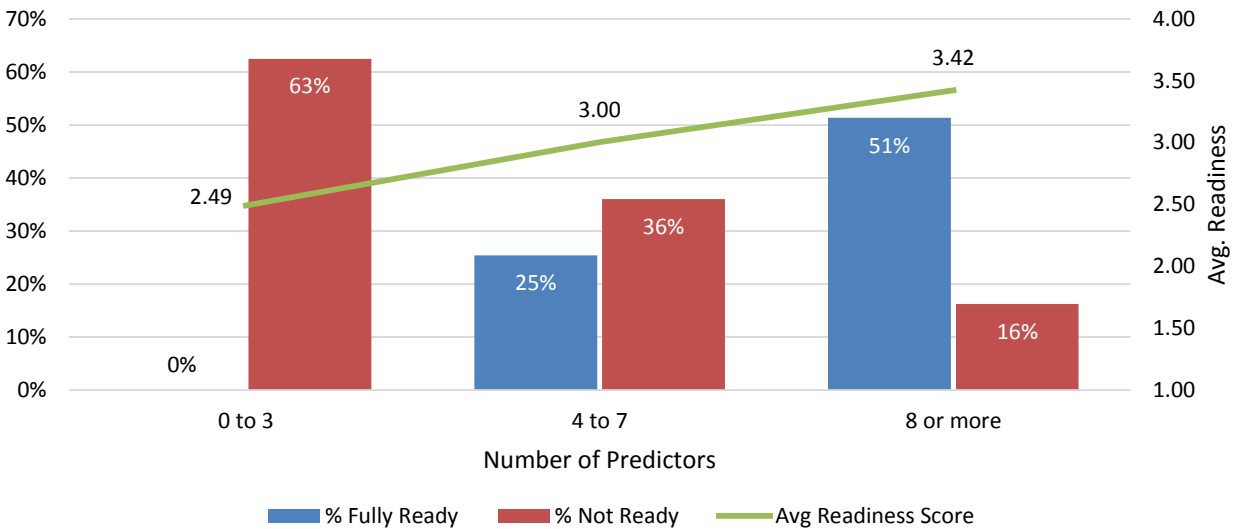
Figure 55. Boys of Color and Early Learning Experiences

	Boys of color	Girls/boys of other races
No preschool/licensed family care/TK	24%	15%
Did not read w/family 5x per week	57%	38%
Did not tell stories/sing songs w/family 5x per week	54%	40%
Number of transition activities	3.41	4.47

Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N (from top to bottom) =1,481; 1,311; 1,287; 1,369. **Differences statistically significant p<.01.

Although boys of color had lower readiness scores and other risk factors, the greater number of *positive* predictors of readiness these boys have, the more likely they are to be ready for school. The chart below shows how readiness increases in this population when they have multiple predictors of readiness – coming to school healthy, well-fed, and well-rested; attending preschool, licensed family care, or TK; being older; not having special needs; not being an English Learner; coming from families with higher incomes; having mothers with higher educational attainment; exposure to less screen time during the week; and living in a multi-parent household. Among boys of color who had at least eight of these predictors, over half entered kindergarten fully ready for school. Conversely, no boy of color was *Fully Ready* if he had 0 to 3 of these predictors.

Figure 56. Cumulative Effect of Predictors for Boys of Color



Source: Kindergarten Observation Form (2015), Parent Information Form (2015)
 Note: N=182.

Section Summary

- Boys of color tend to enter kindergarten with lower readiness levels than their peers. Just one-quarter of African-American/black boys and 28% of Hispanic/Latino boys were considered *Fully Ready*.
- Boys of color also had other demographic, developmental, and family risk factors, including coming from a low-income family, being an English Learner, having a diagnosed special need, and having well-being concerns.
- Boys of color were also less likely to have attended preschool, licensed family care, or TK, engaged in kindergarten transition activities, and read or sang songs/told stories regularly with their families.
- The greater number of *positive* predictors of readiness these boys have, however, the more likely they are to be ready for school.

Conclusions and Discussion

The results of the 2015 Alameda County school readiness assessment largely parallel those of the 2013 study, despite being based on a different sample of schools and utilizing a revised assessment tool. As in 2013, this study underscores the importance of having supportive families and engagement in enriching activities inside and outside the home (e.g., preschool, libraries, and parks) in order to enter school socially, emotionally, and academically ready to learn. Unfortunately, exposure to these experiences is strongly predicted by children’s socioeconomic background and environment. Below, we look at the findings from 2015 and then examine ways that future interventions and research studies can help us address and better understand disparities in readiness.

Key Findings

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

After weighting the sample to be more representative of each district’s size and the county-wide proportion of English Learners, 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 36% of students were considered ***Partially Ready*** by demonstrating readiness in one or two of the key areas, while 20% were considered ***Not Ready*** by falling below the benchmark in all areas.

Major predictors of readiness: Child well-being; preschool, licensed family care, or TK attendance; age; special needs; English fluency; gender; race/ethnicity; mother’s educational attainment; family income; screen time during the week; and single parenthood

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 in the prior year; to be fluent in English; to be typically developing; and to be older than their peers. They were also less likely to be African-American/black and to have a single parent, and were exposed to less screen time during the school week than their peers who were less ready for school. These findings are similar to those of prior Alameda County readiness studies, as well as current research on factors related to school readiness. For example, other research has found kindergarten-aged girls tend to have better language and reading skills than boys, as well 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, 1997; Isaacs, 2012).

The effects of these predictors of readiness is cumulative. That is, the greater number of positive predictors of readiness a child has, the greater the likelihood that he or she is ready for kindergarten. Conversely having a greater number of family risk factors (e.g., being low income, having a single parent, experiencing housing instability, and reporting high levels of parental stress) was found to be associated with lower readiness.

Housing Instability

Over one-quarter of the families in this study had experienced housing instability since their child's birth. Twenty-five percent of families had moved at least twice since the child was born and 3% had been homeless at some point with the child. Families experiencing housing instability were also more likely to be low income, report more stress, and less parenting support. Their children were also less likely to have a regular doctor or dentist. Although it didn't emerge as a significant predictor of readiness in this study, other research has shown a relationship between housing instability and lower readiness for school among low-income families (Institute for Children, Poverty & Homelessness, 2013; Ziol-Guest & McKenna, 2014).

Children need to be healthy to learn

As in previous assessments, child health and well-being stood out as the strongest predictor 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 health significantly contributes to school 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.

Greater participation in TK may be boosting readiness

In the 2015 study, 22% of kindergarten students were reported by their teachers or parents as having attended Transitional Kindergarten in the prior year. These students, like those that had attended preschool, tended to be more ready for school than those who did not attend preschool or TK. Furthermore, the 22% TK participation rate was triple that of the 2013 sample, when 7% of children were reported as former TK students. The 2015 TK participation rate contributed to an overall 14 percentage point increase from 2013 in children that had attended either preschool or TK (from 67% in 2013 to 81% in 2015).

There is evidence that rising TK participation is building greater readiness across the county and state.

The current body of research suggests the positive impact of TK on readiness is as great or greater than the impact of preschool. Although participating in TK did not appear to improve readiness to a greater extent than attending preschool in the current study, children who attended TK had higher readiness scores than children without preschool or TK experience. In addition, a recent study by American Institutes for Research, which evaluated the 2013-14 TK program, found that TK improved California children's pre-literacy and literacy skills, math and problem solving skills, and self-regulation *over and above* the improvements gained by students in conventional preschool programs (Quick et al., 2015). Additional research can help determine the unique contribution of TK to children's readiness for kindergarten.

Mid/upper-income families engage in more kindergarten transition activities than low-income families

One of the most visible ways that families of higher socioeconomic status confer advantages to their children is through engagement in activities that support a smooth transition to kindergarten. Parents of mid- and upper-income levels in 2015 were far more likely than low-income parents to provide opportunities for small group play, to visit the school with their child, meet the teacher, attend a parent

meeting or orientation, or to work on school skills in preparation for kindergarten. Such children were thus more likely to be social and academically prepared when they began kindergarten.

How Do We “Turn the Curve”?

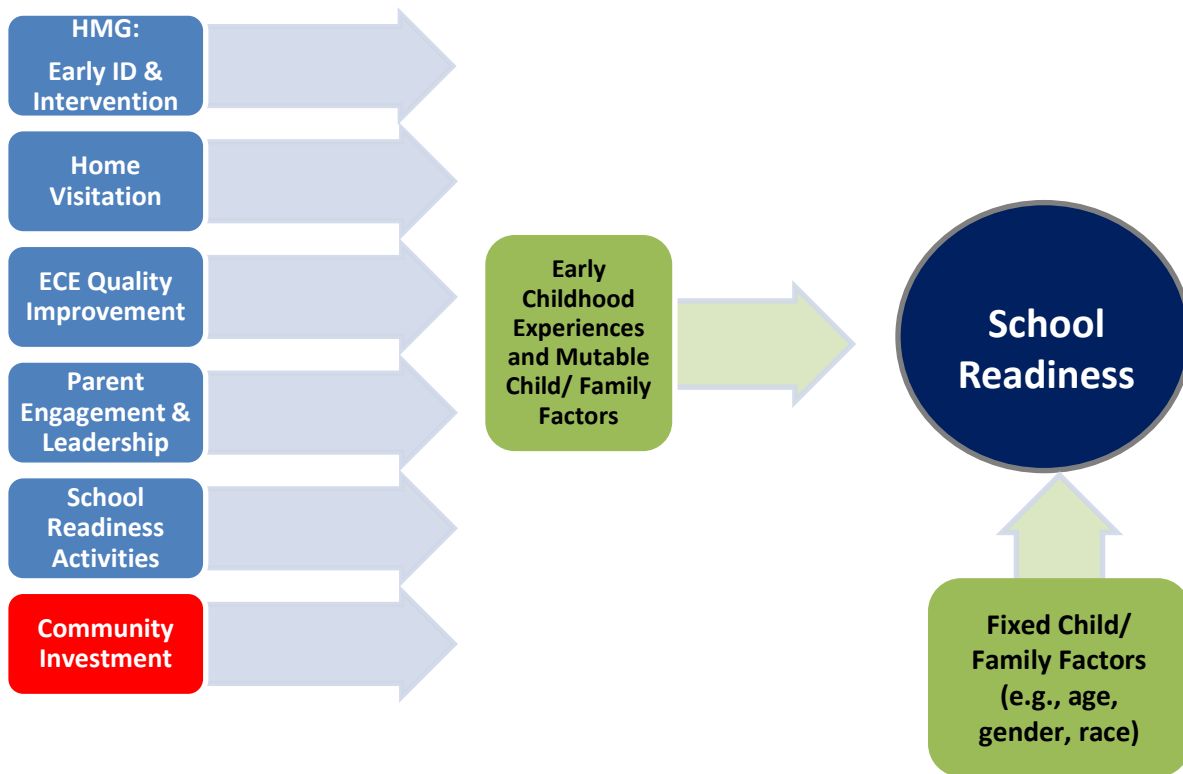
The findings from the current study point to several strategies that F5AC and its partners throughout the community can undertake to help improve the readiness of the county’s children.

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 improve children’s health and well-being. Additionally, investment in early childhood education quality can enhance an intervention that is consistently one of the strongest predictors of readiness. Furthermore, First 5’s parenting engagement and leadership programs and school readiness activities at libraries and parks and recreation facilities can help families promote their children’s readiness, by providing them enriching environments in the years prior to kindergarten. These efforts play an important role in helping children be ready for school, but boosting 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., expansion of the Earned Income Tax Credit) or that provide all workers with paid sick time and family leave to care for ill children. In addition, the evidence suggests children would be more universally prepared for school if all families had access to free or subsidized childcare, through statewide expansion of TK or inclusion of early childhood education in Local Control Funding Formula¹⁴ budgeting at the district level. Provision of such supports for families with young children are wise public investments that may prevent more costly remedial education, treatment, and support in the long run.

¹⁴ The Local Control Funding Formula provides each district in the state with a base level of funding and supplemental dollars for programs and services for low-income students, English Learners, and foster youth. LCFF funds are not categorical, but rather can be used as the school district sees fit to meet the needs of its students. A report from SRI International in 2015 found that few districts are using LCFF dollars for early education programs (Koppich, Campbell, & Humphrey, 2015).



Provide additional support to children of color (particularly boys) and their families

The current study found that children of color, particularly boys, are significantly less likely than their peers to be ready for school. Furthermore, they tend to have other risk factors (e.g., having special needs, experiencing housing instability, and coming from low income families) that may make it difficult for them to catch up to their peers. Yet, the study also showed that if boys of color have positive predictors of readiness, including coming to school healthy and attending preschool or other formal ECE, the readiness gap between these children and their peers can be reduced. Therefore, community partners should particularly target early education, health and well-being, and family support investments for this population.

Ensure that families understand the need for and have access to developmental screenings

Identifying and addressing developmental issues before kindergarten is a critical element of becoming ready for school.

Students with special needs consistently have lower readiness levels than their peers without special needs. This finding highlights the importance of early developmental screening and intervention. However, in 2015, just 23% of Alameda County children in the study were reported (by their parents) as having received a developmental screening. This represents a precipitous decline from the 40% of parents who reported in 2013 that their children had received a developmental screening. It is not clear what exactly is behind the decline (likely reasons include an actual decline in screenings in the population, differences in characteristics of

the 2013 and 2015 samples [low-income families tended to be *more* likely to have their child screened than high-income families, and there were few low-income families in the current year], or a change in parents’ understanding of what a developmental screening is). Nevertheless, a 23% screening rate is cause for concern. It is important to continue county-wide efforts, including Help Me Grow, to

ensure that parents understand the meaning and importance of developmental screening, and that children receive regular screenings, conducted by well-trained professionals, in both medical and early care and education settings.

Encourage and enable more low-SES families to support their children's transition to kindergarten

The socioeconomic disparity in participation in transition activities is striking. For example, among the lowest earning families (under \$35,000), just 31% of parents had met their child's teacher, as opposed to 56% of mid- and upper-income parents. Likewise less than half (46%) of children in low-income households had opportunities to play in small groups leading up to kindergarten, while nearly three-quarters of children (72%) in mid- and high-income families did.

These disparities are important to address, because parent engagement in providing enriching environments is a critical component of readiness (Maxwell & Clifford, 2004). In a recent publication from the Annenberg Institute for School Reform, a number of policymakers and administrators offered advice on how to promote seamless transitions from preschool to kindergarten (Grady, 2016). Examples included visits from teachers and staff to preschool sites to meet families and children, inviting families to visit the school and join parent education workshops, and offering flexible schedules for working families. Summer transition activities might include home visits for all children transitioning into the district, back-to-school celebrations, and meetings between principals, teachers, and parents.

Areas for Further Research

Although the readiness assessments in Alameda County to date have produced some clear and consistent findings, there are still a number of areas ripe for further study and intervention. The following recommendations highlight some of the areas of emphasis and inquiry that F5AC may want to focus on its pursuit of strategies and programs that will help more children become ready for school.

Prioritize schools that have received F5AC-related services in next readiness assessment

In the current study, the number of children who could be matched to F5AC home visiting or Help Me Grow services totaled just 115 out of the 1,530 students assessed (7.5%). To better understand how such services may be shaping readiness, future assessments could prioritize the inclusion of schools that serve disproportionate numbers of HMG and HV participants. This would enable the researchers to conduct a more rigorous analysis of the effects of these programs.

Examine QRIS data to highlight strengths and disparities around preschool quality and other services

Although it has been well-established that preschool attendance, particularly initiatives like Head Start aimed at lower-income families, can help reduce the gaps in school readiness, there is insufficient understanding surrounding the effect of preschool quality on readiness.

Continue to track QRIS ratings as the system expands and is refined.

California's statewide initiative called the Quality Rating and Improvement System (QRIS) serves to fill this gap. Its purpose is to assess quality for the purposes of establishing standards and accountability, providing incentives to improve quality, and educating child care consumers about program quality. However, the limited variation in ratings seen across the state and in Alameda County limit our ability to observe meaningful differences in quality, and therefore our ability to assess the relationship between quality and school readiness. Nevertheless, while further refinements to the rating system may be in order, there is no question that that state's focus on quality is crucial, and F5AC should seek ways to highlight and utilize QRIS as a key resource for raising the quality of preschool centers.



About the Researcher

ASR is a nonprofit 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-Nicljai, MA, Vice President of Evaluation

Casey Coneway, MPP, Project Manager

Christina Branom, MSW, Ph.D., Senior Research Analyst

San Jose Office

408.247.8319

www.appliedsurveyresearch.org

Appendix

Kindergarten Observation Form 2015

ALAMEDA COUNTY

Class # Child #
 (Office use only)



1. Child's start date of instruction: Month Day Year 1 5

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

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 Yes No Information not available

b. Short-term summer pre-K program (e.g., Summer Bridge, Kinder Camp) Yes No Information not available

c. Preschool or licensed child care Yes No Information not available

9. If yes, what type of program was it?

a. Head Start? Yes No Information not available

b. Other licensed child care center? Yes No Information not available

c. Licensed family child care home? Yes No Information not available

10. Since the start of school, how frequently did the following occur?	Rarely or almost never	On some days	On most days	Just about every day
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"/>

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 Asian Filipino
 Pacific Islander Black/African American Alaskan Native or American Indian
 White Arab/Middle Eastern Other _____ Don't know

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

- English Spanish Filipino or Tagalog Chinese/Mandarin/Cantonese
 Farsi or Dari 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 towards 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</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 basic colors (<i>can point to basic 8: red, green, orange, blue, black, purple, brown, yellow</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"/>

Class # Child #

9804488304

Parent Information Form 2015

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.

Shade Circles Like This--> ●
 Not Like This--> ⊗

1. What are your child's initials? First _____ Middle _____ Last _____
This survey is confidential - please do not write your child's name!

Example: *Monica Patricia Morales Lopez:*
 First: M Middle: P Last: ML

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

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

Now we have a few questions about your child's preparation for kindergarten.

4. Please mark which of the following childcare/preschool experiences your child has had in the last 12 months. Please write in the name of the program or school. *(Please shade all that apply.)*

	Yes	Name
4a. Transitional Kindergarten	<input type="radio"/>	
4b. Head Start 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. None of these	<input type="radio"/>	

5. Did you receive the following kinds of information prior to your child entering kindergarten?

- 5a. General information about the skills all children need for kindergarten Yes No
- 5b. Specific information about how you could help your child develop the skills to be ready for kindergarten Yes No
- 5c. Specific information about how ready your child was for kindergarten Yes No
- 5d. Information about how and when to register your child for school Yes No

6. Which of these things did you do before the first day of school? *(Please shade all that apply.)*

- Attended a parent meeting or orientation
- Read books or articles about your child's transition to school
- Visited the school with your child
- Asked child's child care provider/preschool questions about kindergarten
- Met your child's kindergarten teacher
- Asked child's child care provider/preschool whether child was ready for kindergarten
- Worked with your child on school skills
- Provided opportunities for your child to play with other children in small groups
- Read books or watched videos about kindergarten with your child
- Other: _____
- None of these

For Office use only: 1a. 2. CI KI Fo

(Office use)

6885 488300

Now we have questions about your family's activities and routines.

7. 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 per week in each space below.)

- 7a. Read for more than five minutes About _____ days per week
- 7b. Tell stories or sing songs About _____ days per week
- 7c. Household chores or pet care About _____ days per week
- 7d. Play games or do puzzles About _____ days per week
- 7e. Do arts or crafts About _____ days per week
- 7f. Play a sport or exercise About _____ days per week

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

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

9. 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.)

Weekdays: About _____ hours and _____ minutes per day Weekends: About _____ hours and _____ minutes per day

10. Do you have access to the internet for your personal (not work-related) use? Yes No

11. What kinds of parenting programs, services, or supports have you received? (Please shade all that apply.)

- Home visits from a nurse, community worker, or other provider
- Family Resource Centers
- Playgroup programs (e.g. Tiny Tots)
- WIC (Women, Infants, and Children)
- Education about effective parenting
- Education about child development
- Other parenting resources: _____
- None of these

12. In the past year, what types of local community resources have you used with your child? (Please shade all that apply.)

- Arts/music programs Libraries Zoos Other: _____
- Museums Parks Recreational activities, camps, or sports None of these

13. Please tell us the extent to which the following statements are true for you. (Please shade only one response for each statement.)

- | | Definitely true
for me | Somewhat
true for me | Not very
true for me | Not at all
true for me |
|---|---------------------------|-------------------------|-------------------------|---------------------------|
| 13a. There is someone I can count on to watch my child when I need to run an errand. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13b. There is someone I can count on to watch my child when I need a break. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13c. I can easily 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"/> |
| 13d. I feel safe in my neighborhood. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

For Office use only: 7. 9.

1 Adapted from Hoover Dempsey & Sandler, 2005

(Office use)

[]

2633488307

14. How concerned have you been about the following things? (Please shade only one response for each issue.)

	Not at all	A little	Moderately	Very
14a. Money and paying the bills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14b. Health or health care issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14c. Work-related problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14d. Problems with your spouse or partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14e. Access to food or ability to feed your child/family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14f. Managing my child's behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are a few health-related questions about your child.

15. When your child was born, did he/she weigh less than 5 pounds 8 ounces (2,500 grams)? Yes No Don't know

16. If your child has a special need, please mark **all** physical or developmental special needs that your child has below: (If your child does not have a special need, please skip to question 20)

- Speech or language impairment
- Autism
- Intellectual/developmental disabilities (mental retardation)
- Specific learning disabilities
- Emotional/behavior disorder or 'disturbance'
- Severe visual impairment, including blindness
- Auditory impairment (deafness or hard of hearing)
- Traumatic brain injury
- Orthopedic impairment
- Multi-sensory impairment
- Other health impairments (such as Attention Deficit and/or Hyperactivity Disorder - ADD or ADHD)
- Other serious special needs: _____
- NONE

17. How did you learn that your child has special need(s)? (Please shade only one response option.)

Professional diagnosis / assessment (e.g., by a doctor) Your own diagnosis / assessment

18. How old was your child when he/she received his/her first diagnosis? _____ years, _____ months

19. Has your child received professional help for this special need (e.g., help from a pediatrician, school professional, therapist, regional center services)?

Yes No

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

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

22. In the past year, has your child had a dental exam? Yes No

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

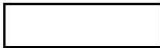
- No insurance
- Medi-Cal
- Other health insurance

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

- Hearing
- Vision
- Developmental (e.g., ASQ)
- None of these

For Office use only: 18. [] [] [] []

1. Adapted from National Survey of American Families, 1999



Finally, we would like to know basic demographic information about your family and the child who is in kindergarten.

25. What is your child's ethnicity? (Please shade all that apply.)

- Hispanic/Latino
- Pacific Islander
- Alaskan Native/American Indian
- Asian
- Black/African American
- Arab/Middle Eastern
- Filipino
- White
- Other: _____

26. What is the language you use MOST often with your child at home? (Please shade only one response.)

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

27. What is your relationship to this child? (Please shade only one response.)

- Mother
- Father
- Grandparent
- Foster Parent
- Other: _____

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

29. Have you or any other primary parent / guardian lost your job during the past year? Yes No

30. How many home addresses have you had since your kindergarten child was born (including your current address)?

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

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

- Yes
- No

32. What is the child's mother's date of birth? Month ____ Day ____ Year ____ Don't know/Not applicable

33. What is the highest education level the child's mother has completed?

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

34. What is your approximate family income per year?

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

32.

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 (n.d.). Media and children. Retrieved from <http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/pages/media-and-children.aspx>
- 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>
- Baroody, A. J. (2003). The development of adaptive expertise and flexibility: The integration of conceptual and procedural knowledge. In A. J. Baroody & A. Dowker (Eds.), *The development of arithmetic concepts and skills: Constructing adaptive expertise studies* (pp. 1-34). Mahwah, NJ: Erlbaum.
- Blank, M. K. (2007). Posttraumatic stress disorder in infants, toddlers, and preschoolers. *British Columbia Medical Journal*, 49(3), 133-138.
- Byrd R. S., & Weitzman, M. L. (1994). Predictors of early grade retention among children in the United States. *Pediatrics*, 93, 481-487.
- California Department of Education. (2015). DataQuest database. Available from <http://dq.cde.ca.gov/dataquest/>
- Caneiro, P. & Heckman, J. (2003). Human capital policy. In J.J. Heckman & A.B. Krueger (Eds.), *Inequality in America: What role for human capital policies?* (pp. 77-239). Cambridge, MA: The MIT Press.
- 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.
- Farkas, G. (2003). Cognitive skills and noncognitive traits and behaviors in stratification processes. *Annual Review of Sociology*, 29, 541-562.
- Ferguson, R. F. (2003). Teachers' perceptions and expectations and the Black-White test score gap. *Urban Education*, 38(4), 460-507.
- Fiscella, K., & Kitzman, H. (2009). Disparities in academic achievement and health: The intersection of child education and health policy. *Pediatrics*, 123, 1073-1080.

- Fryer, R. G., & Levitt, S. D. (2004). Understanding the black-white test score gap in the first two years of school. *Review of Economics and Statistics*, 86(2), 447-464.
- Fryer, R. G., & Levitt, S. D. (2006). The black-white test score gap through third grade. *American Law and Economics Review*, 8(2), 249-281.
- Grady, M. (2016). Supporting early education transitions: Alignment, collaboration, and engagement. *Voices in Urban Education*, 43. Retrieved from <http://vue.annenberginstitute.org/issues/43/supporting-early-education-transitions-alignment-collaboration-and-community-engagement>
- Hair, E.C., Halle, T., Terry-Humen, E., & Calkins, J. (2003). *Naturally occurring patterns of school readiness: How the multiple dimensions of school readiness fit together*. Paper presented at the 2003 Biennial Meeting for the Society for Research in Child Development: Tampa, FL.
- 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.
- Institute for Children, Poverty & Homelessness. (2013). *Head Start and housing (in)stability: Examining the school readiness of children experiencing homelessness*. New York: Author. [http://www.icphusa.org/filelibrary/ICPH_researchbrief_HeadStartandHousing\(In\)stability.pdf](http://www.icphusa.org/filelibrary/ICPH_researchbrief_HeadStartandHousing(In)stability.pdf)
- Isaacs, J. (2012). *Starting school at a disadvantage: The school readiness of poor children*. Washington, DC: The Brookings Institution.
- Koppich, J. E., Campbell, A., & Humphrey, D. C. (March 2015). *Early implementation of the LCFF: Staking out the ground for early learning*. Menlo Park, CA: SRI International.
- Li-Grining, C.P., Votruba-Drzal E., Maldonado-Carreno, C., & Haas, K. (2010). Children's early approaches to learning and academic trajectories through fifth grade. *Developmental Psychology*, 46, 1062-1077.
- 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.
- Quick, H., Holod, A., Muenchow, S., Parrish, D., Hawkinson, L., Zellman, J., Cannon, J., Anthony, J., Weinberg, E., Holod, A., Meakin, J., Lee, D.H., & Tarrant, K. (August 2015). *Independent Evaluation of California's Race to the Top—Early Learning Challenge Quality Rating and Improvement System: Half-Term Report*. American Institutes for Research and Rand Corporation. Retrieved from <http://www.cde.ca.gov/sp/cd/rt/documents/airhalftermreport.pdf>
- Quick, H., Manship, K., Holod, A., Mills, N., Ogut, B., Jacobson Chernoff, J., Anthony, J., Hauser, A., Keuter, S., Blum, J., & González, R. (December 2015). *Impact of California's Transitional Kindergarten Program, 2013-14*. American Institutes for Research. Retrieved from <http://www.air.org/sites/default/files/downloads/report/Impact-of-Californias-Transitional-Kindergarten-Program-Dec-15.pdf>

- Raver, C. (2003). Young children's emotional development and school readiness. *Social Policy Report, 16*(3), 3-19.
- 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.
- U.S. Census Bureau. (2014). State & County QuickFacts: Alameda County, California. Retrieved from <http://quickfacts.census.gov/qfd/states/06/06001.html>
- 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
- Ziol-Guest, K. M., & McKenna, C. C. (2014), Early childhood housing instability and school readiness. *Child Development, 85*, 103–113. doi: 10.1111/cdev.12105