School Readiness Assessment Model™

The ASR School Readiness Assessment Model™

SCHOOL READINESS
IN SACRAMENTO COUNTY

COMPREHENSIVE REPORT **2016**

Acknowledgments

Participating Sacramento County Districts, Schools, and Teachers

District	School	Teacher
Elk Grove Unified	Charles E. Mack Elementary	Teri Krouse
		Nicole Roschak
	David Reese Elementary	Jennifer Mederos
		Marilyn Yu
	Florin Elementary	Sandra Ferrer
		Nia Welsh
		Houa Vang
	Herman Leimbach Elementary	Cheryl Crane
		Heidi Donnelly
		Gayle Gerdes
	Samuel Kennedy Elementary	Denise Brenenstall
		Miska Pearson
Folsom Cordova Unified	Cordova Gardens Elementary	Yoly Stroeve & Suemi Oxford
		Christine Suleiman & Danielle Dalton
	Cordova Villa Elementary	Megan Bussman

District	School	Teacher
		Kristine Miramontes
	Rancho Cordova Elementary	Joanna Slaughter
	Theodore Judah Elementary	Celeste Sonneborn
		Barbara Young
	White Rock Elementary	Sarah Bohorquez
		Zhanna Marin
		Jessica Waugh
	Williamson Elementary	Deanna La Greca
		Susanna Verplanken
Galt Joint Union Elementary	Greer Elementary	Emily Oliveira
		Kathy Pletcher
	Valley Oaks Elementary	Lourdes Anton
		Sara Mullins
Natomas Unified	American Lakes Elementary	Kathryn Freer
		Laura Farbstein
	Jefferson Elementary	Amber Allison
		Wendy Heu
River Delta Joint Unified	Isleton Elementary	Stephen Wright
	Walnut Grove Elementary	Makayla Perlot
Robla	Bell Avenue Elementary	Caitlin Tipton
		Christie Erhart
		Katy Yund
	Main Avenue Elementary	Crystal Saladin
		Irma Tchamourian
Sacramento City Unified	Edward Kemble Elementary	Patricia Arellano
		Alyce Hammond
		Nancy Lopez
	Ethel I. Baker Elementary	Jenny Nguyen
		Charisse Tuvilla
	Father Keith B. Kenny Elementary	Char Feagins
		Estella Fuller
	John Still Elementary	Maria Lares
		Muang Saeteurn
		Joua Vang
	Leataata Floyd Elementary	Shaneka Harvey
		Demetria Stanley
	Oak Ridge Elementary	Jacqueline Inama
		Heather Joyce
	Pacific Elementary	Chue Lao
		Siphiwe Mashinini-Nigl

District	School	Teacher
	Peter Burnett Elementary	Robyn Andreotti
		Nicole Cortez
	Rosa Parks Elementary	Christine Ha
		Guadalupe Reyes-Campos
	Woodbine Elementary	Tina Aasen
San Juan Unified	Dyer Kelly Elementary	Dana Farnworth
		Debbie Kype
		Yesmine Thompson
	Howe Avenue Elementary	Amanda Hale
		Erin Madden
		Babette Poetter
	Starr King Elementary	Tara Phillips
		Crista Young
Twin Rivers Unified	Michael J. Castori Elementary	Sunita Buksh
		Donna Sanchez
		Sarah Smith
		Kristal Chacon
	Del Paso Heights Elementary	Morgan Grant
		Debra Nordyke
	Fairbanks Elementary	Kendra Tarke
		Pa Xiong
	Garden Valley Elementary	Olivia Wilkins
		Teresa Weddell
	Hagginwood Elementary	Nicole Godwin
		Renee Myers
	Kohler Elementary	Bobbi Donovan
		Sandra Packard
		Brad Thomas
	Noralto Elementary	Joan Capizzano
		Monica Roberts
		Youa Vang
	Northwood Elementary	Hannah Murphy
		Morgann Roth
		David Skow

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Introduction

DEFINING SCHOOL READINESS

School readiness can be broadly defined as both the set of skills students need to make a successful transition to kindergarten and the preparation of their families and communities for supporting this transition. This model considers the development of a child's readiness in his or her social environment. For example, recent research has found relationships between the accumulation of environmental risk factors (e.g., poverty, single parenthood, parental depression, housing instability) to poor school readiness outcomes (Pratt, McClelland, Swanson, & Lipscomb, 2016; Ziol-Guest & McKenna, 2014), but conversely, the ability of quality preschool experiences to prepare disadvantaged children for school and beyond (Schweinhart et al., 2005). This research points to the importance of early interventions in countering the adverse effects of poverty and other challenges on school readiness development.

- Poverty
- Special Needs
- Hunger
- English Learner…

- Preschool
- Home Literacy Activities
- Parent Engagement…
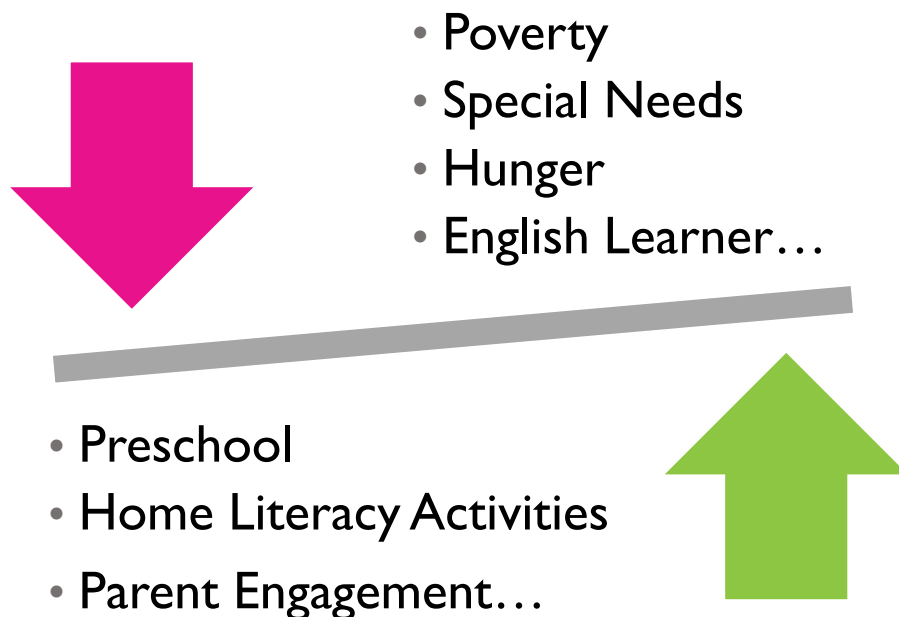
The school readiness of children can be further construed as a collection of skills of various domains, including social and emotional, self-regulation, and academic skills. The development of each type of skill prior to kindergarten is important, as they independently predict later success in school and beyond. For example, children who demonstrate proficiency across an array of readiness dimensions— including self-regulation, social, and academic skills—are more likely to succeed academically in first grade than those who are competent in only one or two dimensions (Hair, Halle, Terry-Humen, & Calkins, 2003). Possessing social competence predicts fifth grade achievement (Sabol & Pianta, 2012), while self-regulation skills are often cited by kindergarten teachers as essential for successful school adjustment (Rimm-Kaufman et al., 2000) and show associations with emerging reading and math skills

(Welsh et al., 2010). Further research shows that academic skills (e.g., knowing numbers and letters) and the ability to sustain attention (an aspect of self-regulation) significantly predict math and reading achievement later in elementary school and early adolescence (Duncan et al., 2007). Children who demonstrate poor achievement early in their school careers are more likely to experience grade retention, which puts them at greater risk factor for school dropout, even if the retention occurs during elementary school (Alexander, Entwisle, & Kabani, 2001; Roderick, 1994). The evidence is clear: school readiness sets the stage for successful outcomes throughout life.
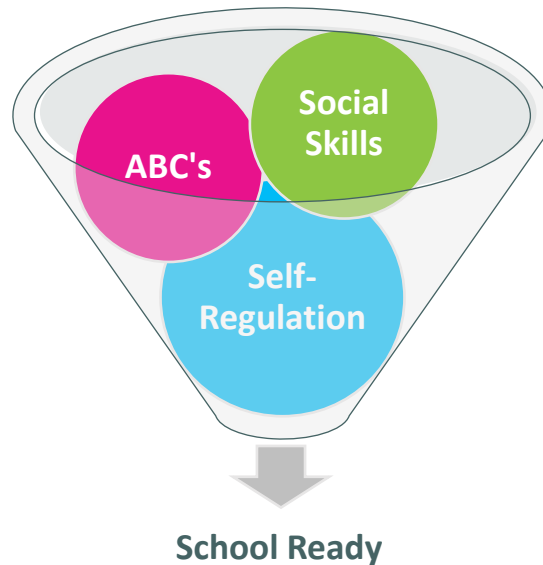
School Ready

The Applied Survey Research School Readiness Assessment Model

Since 2001, Applied Survey Research (ASR) has conducted school readiness assessments across Northern California, as well is in Lake County, Illinois, Coconino County, Arizona, and throughout the network of providers in the Los Angeles Unified Preschool (LAUP). ASR's readiness assessment materials and protocols have been designed to reflect both the local context of school readiness as well as the current research from early education and K-12 literature. The central instrument of the assessment, the *Kindergarten Observation Form (KOF)*, was created using the input of subject matter experts including community stakeholders, child development and education experts, preschool teachers, and kindergarten teachers.

The readiness skills measured by the *KOF* reliably sort into several primary domains, termed the *Basic Building Blocks of Readiness*:

- *Social Expression*—skills related to interacting with adults and other children

- *Self-Regulation*—basic emotion regulation and self-control skills needed to be able to perform well in the classroom

- *Kindergarten Academics*—skills that are more academic in nature, such as writing, counting, and identifying shapes and colors

The KOF also assesses fine and gross motor skills, but internal research conducted by ASR found they were not correlated as strongly with long-term outcomes (i.e., third grade English and math achievement) as the

other domains, and the literature is mixed on whether they are critical components of *school readiness*. Therefore, they are included in the assessment, but not called out as their own *Building Block.*

Given their importance in shaping school readiness, the ASR model also incorporates community and family preparation for school. The *Parent Information Form* (PIF) is a parent survey that captures family background and risk factors, and the degree to which the family has been involved in readiness-related activities and utilized community resources, including preschool, to help the child become ready for school. The model recognizes the contribution of early experiences to each of the skills that make up the *Building Blocks*.

PURPOSE OF THIS STUDY

The readiness assessment described in this report was conducted on behalf of First 5 Sacramento. The mission of First 5 Sacramento is to support the healthy development and well-being of children ages 0-5 by providing resources and services throughout the county that:

- Improve children's access to health care, especially oral health,

- Improve nutrition and physical activity for young children,

- Build effective parenting skills,

- Increase access to and participation in quality early child care and education,

- Strengthen communities, and

- Develop school readiness.

In 2012, First 5 Sacramento and ASR first engaged in a partnership to assess incoming kindergarteners' readiness for school across the First 5 countywide network of elementary schools. The assessment has been conducted annually since then to help First 5 and its partners understand how prepared students and their families are for kindergarten across the network, as well as the connections between readiness and early childhood experiences, including participation in First 5 services.

The readiness assessment was largely framed around three primary research questions.

1) How ready for kindergarten are children across the First 5 Sacramento network of schools?

2) How ready are families to support their children's readiness?

3) What are the major factors or "predictors" of readiness across the First 5 Sacramento network? Are any specific First 5-funded interventions associated with enhanced student readiness?

This report provides a "snapshot" of readiness in the First 5 Sacramento network, as well as a "story" of readiness that examines the family and early education contexts of children entering kindergarten in fall 2015. The first section of this report presents the study's methodology: sample design, instruments, and data collection methods. The next section presents the demographic, health and well-being characteristics, as well as family backgrounds of the children assessed. This is followed by a detailed analysis of student readiness across the different skill domains and an exploration of the various child and family factors associated with school readiness. The report then describes an analysis of the associations between First 5 participation and school readiness and concludes with a summary of major findings.

Methodology

This section provides a brief overview of the data sample and response rates, data collection instruments, and sources that comprised the school readiness assessment model for First 5 Sacramento, followed by an explanation of the statistical notations used throughout the report.

SAMPLE

The sample of schools and classrooms was drawn by First 5 Sacramento staff to cover the entire First 5 service area, particularly those schools whose incoming kindergartners and their families were most likely to have been provided First 5 school readiness services in recent years. The sample was drawn to reflect the First 5 Sacramento target population and service network, which covered parts of Sacramento City, Twin Rivers, Elk Grove, Natomas, River Delta, Folsom Cordova, Galt, Robla, and San Juan school districts. The sample was not designed to be representative or generalizable to the county at large nor to any individual district or school. The map below shows the schools included in the 2016 readiness assessment.

Figure 1. Map of First 5 Sacramento Network Schools in the 2016 Readiness Assessment, by District
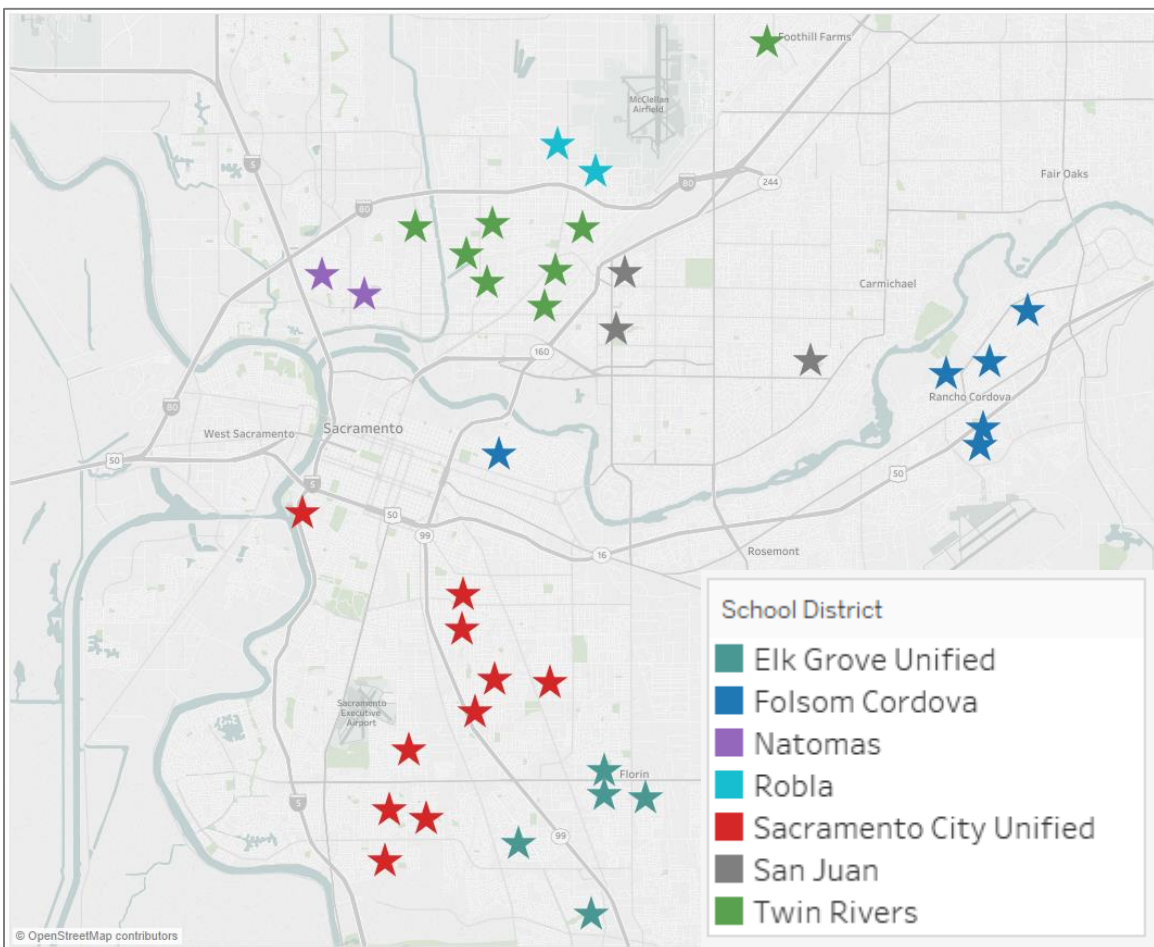
Note: Galt Joint Union Elementary (two schools) and River Delta Joint Unified (two schools) are not pictured. These schools are south of Sacramento in the cities of Galt, Walnut Grove, and Isleton.

DATA COLLECTION INSTRUMENTS AND IMPLEMENTATION

Instruments and Data Sources

The two primary instruments used in this study were the *Kindergarten Observation Form,* completed by teachers to record ratings of child readiness, and the *Parent Information Form,* completed by parents and guardians to provide information about their children and family background. First 5 service and participation records for children and their parents were obtained and matched to school readiness data.

Kindergarten Observation Form (KOF)

Teachers used the *Kindergarten Observation Form* to record their observations of children across 20 readiness skills. Teachers observed and scored 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* was provided as well. The *KOF* also includes fields to capture students' basic demographic information to understand who took part in the study and to examine the characteristics that are associated with children's skill development (e.g., experience in preschool and other child care settings, age, gender, whether or not the child has special needs).

Parent Information Form (PIF)

To better understand the family-based factors that contribute to children's readiness for school, all parents of children in participating classrooms were asked to complete a *Parent Information Form*. This is a survey that collects a variety of information about the child and the family, such as preschool and child care arrangements for children, parenting stressors and supports, and information and services families received.

Implementation

Obtaining Participation Agreement

To launch the study, First 5 Sacramento personnel, school readiness coordinators, and ASR staff reached out to the principals of each school selected to be in the assessment. Principals were provided with information about the assessment, including its purpose, what participation would entail for the kindergarten teachers, and a timeline for completion of the study. Each principal designated one to four teachers to participate in the assessment.

Teacher Trainings

Prior to and at the beginning of the 2016-17 school year, ASR conducted a series of in-depth assessment trainings for teachers at multiple Sacramento area locations and by web conference. The trainings included an overview of the project and study purpose and a detailed explanation of the data collection steps, student assessment protocol, and parent survey administration.

Parent Consent

Parents granted consent for their children to participate through a process of *passive* consent. At the beginning of the school year, teachers explained the project and the consent process to parents before distributing the parent consent forms and *Parent Information Forms*. Parents who filled out a *PIF* returned it to the teacher in a sealed manila envelope that was sent back to ASR. If, after being informed of the study, parents requested that their child not participate, the child was excluded from the study. All families in the assessed kindergarten classes (both those who participated and those who did not) were given a bilingual (Spanish/English) children's book as a token of appreciation.

Conducting Student Assessments

Teachers were instructed to conduct their student assessments approximately three to four 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 – approximately three weeks after their classes had started. Once complete, each teacher mailed the packet of completed *Kindergarten Observation Forms* and *Parent Information Forms* to ASR. When the final packets were received in full by ASR, each of the teachers was mailed a thank-you letter and a $150 stipend in appreciation of their contribution to the assessment.

Schools, Classrooms, Parent Consent, and Response Rates

Figure 2 presents a summary of the participation rates for the study. In fall 2016, 40 schools in nine different school districts across Sacramento County participated in the study. Of the 93 teachers who were trained and provided with materials, 89 completed their assessments and submitted complete forms to ASR. Teachers were contacted multiple times to achieve the highest possible response rate. In all, 1,874 individual student assessments were completed. This count and the findings represented in this report *do not* include students who were in Transitional Kindergarten at the time of the assessment.

The overall parent consent rate for the KOF was 92 percent. Of the parents who did consent, 73 percent also completed and returned the PIF (parent survey).

Figure 2. Completion Metrics of the Sacramento County School Readiness Assessment, Fall 2016
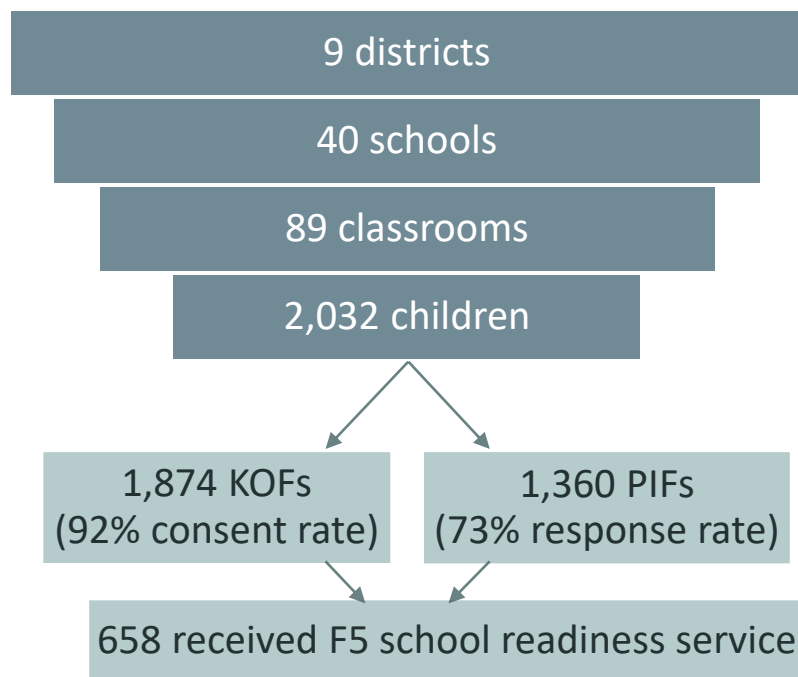
Source: Kindergarten Observation Form and Parent Information Form 2016 returns.

Figure 3 represents the proportion of students participating in the study from each district as well as the percent of parents in each district who returned a *PIF*. Most students in the sample attended schools in the Sacramento City or Twin Rivers School Districts. The *PIF* return rates in 2016 were particularly high in Galt, River Delta, Robla, and Elk Grove, but relatively low in Natomas and San Juan districts.

Figure 3. School Readiness Completion by District
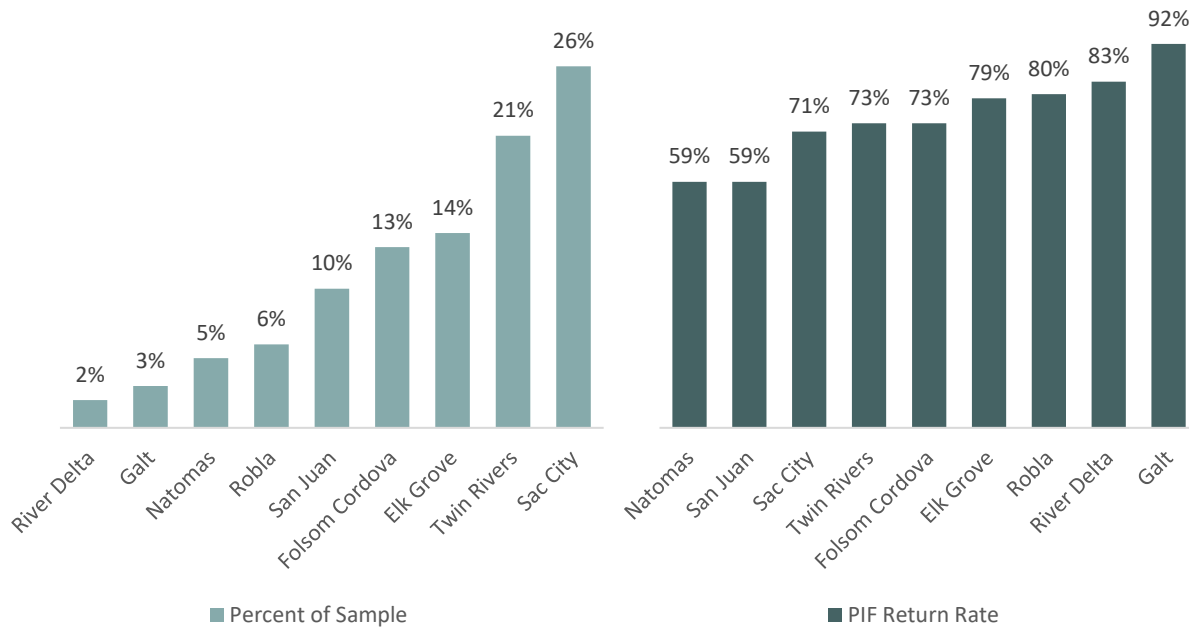
Source: Kindergarten Observation Form and Parent Information Form 2016 returns.

Analyses and Statistical Notation

When appropriate, we conducted comparison analyses of the readiness levels, home environments, and early experiences of children based on their **demographic** characteristics (e.g., family income or maternal education) and participation in **First 5 school readiness** services[1].

Readiness skills were also analyzed using a technique known as regression, which accounts for the independent contribution of various factors to an outcome. For example, it allowed us to examine the contribution of preschool attendance to readiness, controlling for—or holding constant—other characteristics (e.g., child age, gender, and race/ethnicity).

Throughout this report, ASR uses the following standard abbreviations:

- *N* denotes the sample size for a chart or an analysis table.
- *P* values (e.g., *p* < .01) are used to note whether mean differences and correlations are statistically significant. *P*-values that are less than .05 are statistically significant.
- R^2 is a statistic that represents the degree of variance or change in one measure (e.g., readiness) that is explained by changes in other indicators or "predictors" (e.g., preschool, family income). R^2 is measured on a scale of 0 (no correlation) to 1 (perfectly correlated).

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[1] Please note that, while 35 percent of the sample had received a school readiness service from First 5, the results presented in this report are for all children assessed.

A Portrait of Students and Families in First 5 Sacramento-Supported School Communities

DEMOGRAPHICS

The basic demographic characteristics of the 2012-2016 samples are provided in Figure 4. Latino students comprised the largest racial/ethnic group in the sample in all years, and their share of the total sample has ranged from a high of 40 percent in 2012 and 2013 to a low of 36 percent in 2015. The proportion of the sample identifying as multi-racial/ethnic grew from 13 percent in 2012 to 17 percent in 2015 and 2016. The percentage of families who were very low income (i.e., under $15,000 per year) declined again in 2016 to 31 percent, while the percent who were high income (i.e., at least $50,000 annually) rose to 15 percent in 2016. Maternal educational attainment and child age remained relatively unchanged from 2014 to 2016, though the proportion of mothers with less than a high school education has increased substantially and age has increased slightly compared to 2012-2013 levels.

Figure 4. Demographics of Sampled Kindergartners and their Families

	2016 Avg. or Perc.	2015 Avg. or Perc.	2014 Avg. or Perc.	2013 Avg. or Perc.	2012 Avg. or Perc.
Gender					
Boys	53%	50%	51%	53%	51%
Girls	47%	50%	49%	48%	49%
Age (at date of assessment)	5.5 avg.	5.5 avg.	5.5 avg.	5.4 avg.	5.3 avg.
Race/Ethnicity					
Latino/Hispanic	38%	36%	38%	40%	40%
African American	13%	16%	18%	18%	17%
White	13%	14%	11%	15%	15%
Asian	16%	15%	16%	16%	13%
Multiple race/ethnicity	17%	17%	15%	10%	13%
Filipino	1%	1%	1%	1%	<1%
Other	3%	2%	2%	1%	2%
Family Income					
$0-$14,999	31%	36%	41%	39%	42%
$15,000-$34,999	37%	37%	37%	36%	35%
$35,000-$49,999	17%	15%	13%	14%	14%
$50,000+	15%	12%	10%	11%	9%
Mother's Education (Highest level attained)					
Less than HS	24%	25%	25%	12%	12%
High School	32%	31%	33%	39%	42%
Some College	27%	27%	28%	33%	30%
Associate's Degree	8%	9%	8%	11%	9%
Bachelor's Degree (or higher)	8%	8%	6%	6%	7%

Source: Kindergarten Observation Form 2012-2016; Parent Information Form 2012-2016. Note: Percentages may not sum to 100 due to rounding. N=977-1,563 (2012); 1,002-1,532 (2013); 1,210-1,844 (2014); 1,277-1,905 (2015); 1,288-1,864 (2016).

Child Language

Nearly forty percent of children in the sample were identified by their teachers as English Learners, but most children in the sample spoke English as their preferred language.[2] Close to three-quarters of children spoke English either alone or bilingually with another language. About 17 percent of the sample spoke only Spanish as their preferred language, while smaller percentages of students spoke other languages, including Arabic, Chinese, Farsi, Hindi, Hmong and Vietnamese. Rates for 2016 were almost identical to those for 2015.

Figure 5. Child Language

	2016		2015	
	N	**Percentage**	**N**	**Percentage**
English Learners	710	38%	707	37%
Preferred Language				
English only	1,149	62%	1,195	64%
Spanish only	312	17%	341	18%
Other only	183	10%	155	8%
Bilingual English-Spanish	155	8%	148	8%
Bilingual English-Other	48	3%	42	2%

Source: Kindergarten Observation Form 2016. Note: Percentages may not sum to 100 due to rounding.

Household Composition and Mobility

In 2016, one-third of children (33%) lived in single-parent households, an increase from the 2015 rate (28%). Eleven percent of mothers were teenagers when their kindergartner was born, while the average age of mothers at the child's birth was 27 years, remaining unchanged from 2015. A higher percentage of families (47%) reported only one home address since their kindergarten child was born compared to 2015 (39%)

Figure 6. Household Composition and Mobility

	2016		2015	
	N	**Average or Percentage**	**N**	**Average or Percentage**
Single Parent Households	**441**	**33%**	**368**	**28%**
Mothers of K students...				
Were teenagers when child was born	138	11%	155	12%
Average age at birth of K child	1,252	26.9	1,267	26.9
Number of home addresses since K child was born...				
One	604	47%	509	39%
Two	371	29%	421	32%
Three	194	15%	216	17%
Four or more	125	10%	156	12%
Parent and child have been homeless	**68**	**5%**	**76**	**6%**

Source: Parent Information Form 2016. Note: Percentages may not sum to 100 due to rounding.

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[2] A small proportion of English-speaking children were nevertheless identified as English Learners, likely because they spoke another language at home.

PRE-KINDERGARTEN EXPERIENCES

ASR used three sources to identify the specific types of preschool experiences children in the assessment had in the years prior to kindergarten entry. The *Kindergarten Observation Form* and *Parent Information Form* asked teachers and parents a series of questions about the child's child care and/or preschool arrangements during the year prior to kindergarten entry. Participation records from First 5 were also obtained to supplement these sources and identify children enrolled in First 5 pre-K.

3 out of 4 participating children attended some form of pre-kindergarten in the year prior to kindergarten entry

Among the children for whom pre-kindergarten information was available, **72 percent** attended a licensed preschool or child care center or transitional kindergarten in the year before they started kindergarten; 11 percent of the sample had been to First 5-supported preschools, and 59 percent had been to other preschools or child care centers[3]. Twenty percent of the sample attended transitional kindergarten (TK) in the prior year. About 10 percent attended a short-term summer pre-K program (designed for children without prior preschool experience), the majority of whom attended a summer program sponsored by First 5. Just two percent were in a family care setting. As shown in Figure 9, this rate of preschool/TK attendance is similar to previous years.

Figure 7. Types of Pre-K Experience in Year Prior to Kindergarten, 2016
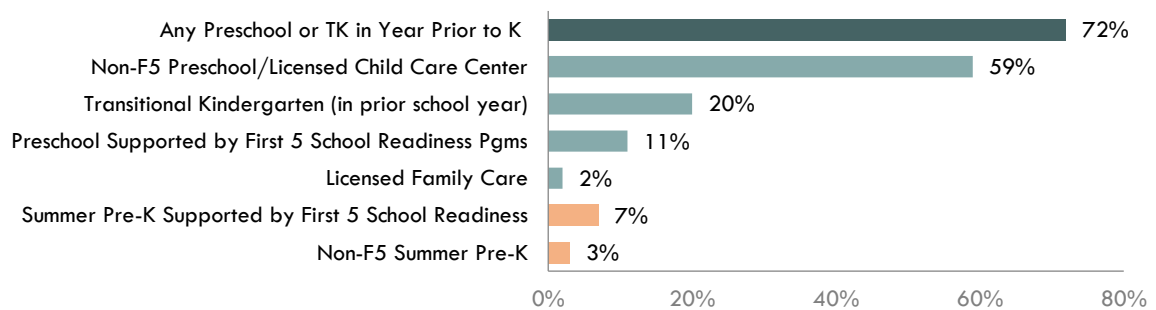
Source: Kindergarten Observation Form 2016, Parent Information Form 2016, First 5 service records. Note: N=1,429-1,864. Percentages do not sum to 100 because some reported more than one type of preschool or childcare. Summer pre-k programs are not included within "Any Preschool in Year Prior to K."

The characteristics of children who attended preschool are presented in Figure 8. There were significant differences in preschool attendance based on special needs and child race/ethnicity. Interestingly, children with special needs were significantly more likely to attend preschool than typically developing children, as were Latino/Hispanic, African American, White and Multiracial children compared to Asian and Other children. On the other hand, there were no significant differences in preschool attendance based on family income, mother's education or English Learner status, though it should be noted that, per First 5 Sacramento's request, the cutoff for low income changed this year from $35,000 or less to $50,000 or less.

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[3] These do not sum to 72% due to differences in the completeness of data for these two indicators.

Figure 8. Preschool Attendance, by Select Demographics

Demographics	N	Attended Preschool	Did Not Attend Preschool
Special Needs**			
Yes	**141**	82%	18%
No	**1,490**	71%	29%
Race***			
Latino/Hispanic	**622**	75%	25%
African American	**191**	71%	29%
White	**210**	71%	29%
Asian/Pacific Islander	**260**	62%	38%
Multiple Race/Ethnicity	**301**	76%	24%
Other	**46**	52%	48%
English Learner			
Yes	**643**	72%	28%
No	**984**	72%	29%
Low Income (under $50K)			
Yes	**1,075**	74%	26%
No	**195**	75%	25%
Mother Education			
No more than HS	**704**	72%	28%
More than HS	**597**	76%	24%

Source: Kindergarten Observation Form 2016, Parent Information Form 2016, First 5 service records. Note: *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Figure 9. Preschool or TK Attendance, by Year
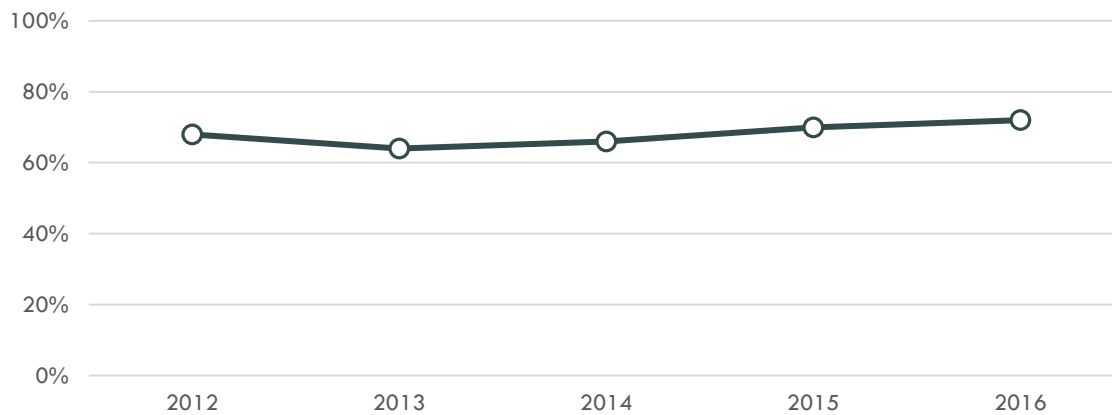
First 5 School Readiness Service Participation

As previously mentioned, 658 children—35 percent of the assessed sample—received First 5-funded *school readiness services* provided by one of the nine school districts. The different types of school readiness

services are presented in Figure 10. Among children who received at least one First 5-funded school readiness service, the average number of service types received was six.

Figure 10. First 5-Funded School Readiness Services

Early Education (ages 3-5)	Screenings, Early Identification & Referrals	Family Support & Engagement	Playgroups (ages 0-3)
▪ Preschool ▪ Summer Camps	▪ Behavioral ▪ Dental ▪ Developmental ▪ Hearing ▪ Speech/Language ▪ Vision	▪ Family Literacy Program ▪ Parent Education ▪ Kindergarten Orientation ▪ Transitional Activities ▪ Home Visits	▪ Playgroups for children and their caregiver

Figure 11. Type of Service Received by First 5 Service Recipients

Service	Percent
Dental screening	84%
Hearing screening	82%
Vision screening	77%
Developmental screening	70%
Family literacy	69%
Parent education	57%
Speech/language screening	49%
Transition orientation	42%
Dental referral	22%
Summer pre-K	20%
Intensive family services	18%
Family literacy book bag	15%
Playgroup	6%
Vision referral	5%
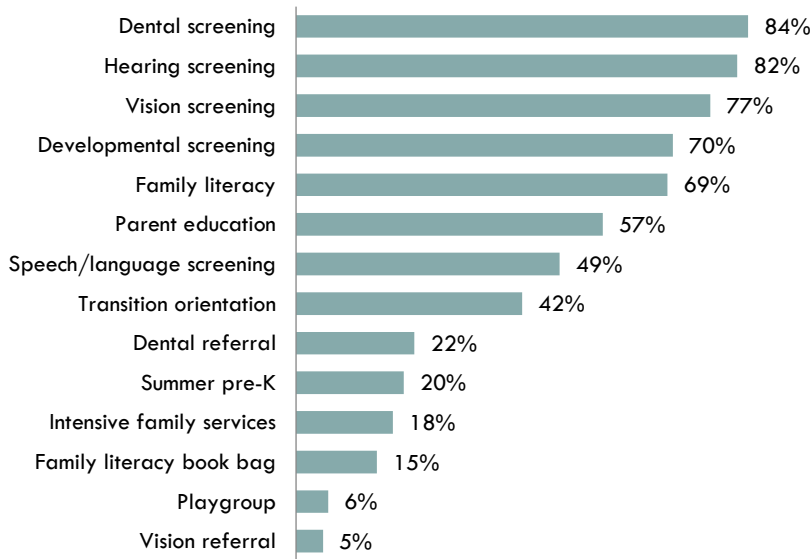
Source: First 5 service records. Note: N=658. All other services were provided to less than 5% of First 5 service recipients and are not shown. These included: developmental, hearing, speech/language, behavioral, and other referrals; behavioral screenings; parent-teacher conferences; family therapy; home visiting; immunizations; and the Primary Intervention Program (PIP).

Children were identified as receiving one more of these services if they and/or their family received the service in the two years before the child entered kindergarten. As shown in Figure 12, participation in these services was particularly high in River Delta (65%) and Robla (55%), while a smaller percentage of students in Natomas (20%) and San Juan (26%) received First 5 school readiness services.

Figure 12. Students Who Received First 5-Funded School Readiness Services, by District

District	All Children	Children with First 5 Service	
	N	N	Percent
Elk Grove Unified	252	117	46%
Folsom Cordova Unified	250	88	35%
Galt Joint Union Elementary	64	28	44%
Natomas Unified	87	17	20%
River Delta Joint Unified	46	30	65%
Robla Elementary	104	57	55%
Sacramento City Unified	479	140	29%
San Juan Unified	187	49	26%
Twin Rivers Unified	395	132	33%
Total	**1,864**	**658**	**35%**

Source: Kindergarten Observation Form 2016, First 5 service records.

CHILDREN'S HEALTH

This section describes results from the *Parent Information Form* and teachers' observations on the *KOF* about children's health and well-being and access to health care.

Insurance, Access to Care, and Screenings

As in prior years, nearly all children had health insurance (99%) and a regular doctor (97%). Additionally, over three-quarters of students had received hearing screenings from First 5 or another provider (76%), and vision screening (87%). There was a dramatic increase in the proportion of students who received a developmental screening from First 5 or another provider, from less than half (43%) in 2015 to almost all (99%) in 2016.

Figure 13. Health Screenings (Parent Report on PIF)

Received Vision Screening	77%
Received Hearing Screening	76%

Source: Parent Information Form 2016. Note: N=1,432-1,857.

Birth and Developmental Outcomes

As in 2015, about 8 percent of the 2016 sample had been born low birthweight (under 2,500 grams), a key predictor of numerous health and developmental outcomes, including autism, learning disabilities, and chronic respiratory problems (Hack, Klein & Taylor, 1995; Kessenich, 2003).

In addition, according to teachers and parents, 8 percent of the children assessed (151 children) had a diagnosed special need. The most common disabilities are displayed in the chart below. The majority of children with special needs had a speech or language disability (91 children) followed by ADD or ADHD (37 children).

Figure 14. Number of Children with Most Commonly Reported Disabilities

Speech/language disability	91
ADD/ADHD	37
Emotional/behavioral disability	27
Other serious special needs	21
Visual or hearing impairment	20
Autism	10
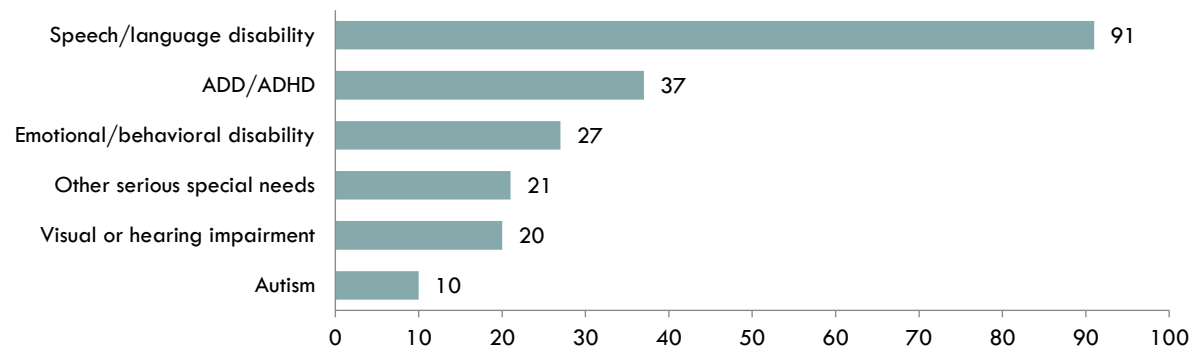
Source: Parent Information Form 2016. Note: Children could have more than one reported diagnosis.

Dental Health Indicators and Access to Care

Across all five readiness studies (2012-2016), about 9 out of 10 children had a regular dentist, and a little over 8 in 10 had received a dental exam in the past year. In 2016, 17 percent reported a toothache, similar to rates for the past three years. Ten percent of students had missed school (or preschool) due to dental issues and nearly a quarter (23%) came into kindergarten having had at least three cavities, nearly the same percentages as in prior years.

Figure 15. Dental Health and Access to Care
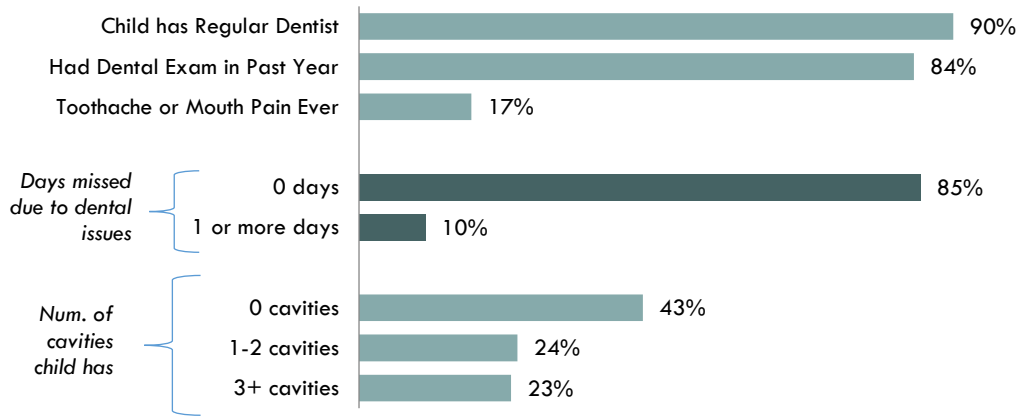
Source: Parent Information Form 2016. Note: N=1,285-1,312. Percentages may not sum to 100 due to rounding and exclusion of "Don't Know" responses.

Child Well-Being and Attendance Patterns

Teachers were asked to report the degree to which students were hungry, tired, sick, absent, or tardy at school. As shown in Figure 16, the most commonly reported problems were hunger—14 percent told the teacher they were hungry on some days, most days, or just about every day—and fatigue—19 percent appeared tired on some days, most days, or just about every day.

Figure 16. Child Well-Being and Attendance
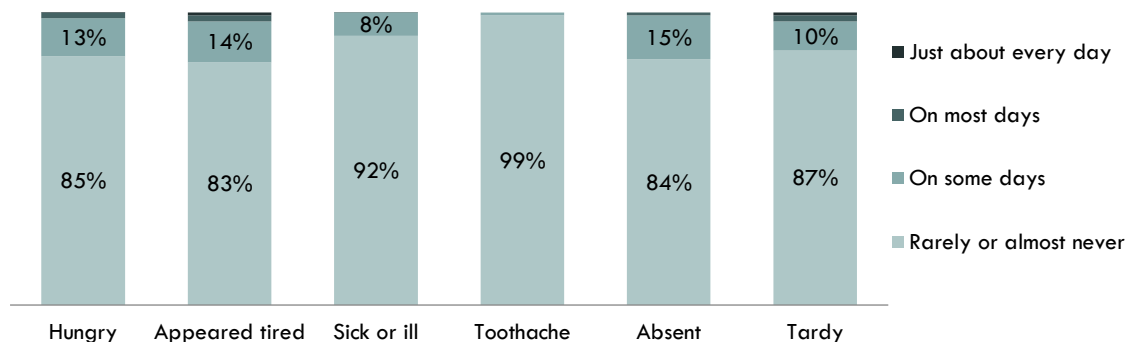
Source: Kindergarten Observation Form 2016. Note: N=1,859-1,861. Proportions less than 5% not labeled. Percentages may not sum to 100 due to rounding.

FAMILY ACTIVITIES

Family Activities in the Home

To better understand the home environment of entering kindergartners, parents were asked how often they engaged in a variety of activities (e.g., reading, story-telling) with their children in a typical week. The proportion of parents reporting they did these activities five times per week or more is shown in Figure 17. Across all five study years, the majority of parents engaged their children in household chores at least five times per week (57% in 2016), and fewer parents engaged in arts and crafts with their children (27% in 2016).

As seen in the chart below, mothers who had attended at least some college were significantly more likely than mothers with no more than a high school diploma to (a) read with their children, (b) tell stories or sing songs, (c) play games or do puzzles, and (d) do arts and crafts with their child at least five times per week.

Maternal education was positively related to engagement in family activities, including reading and singing/telling stories

Figure 17. Family Activities 5 times per Week or More, 2016
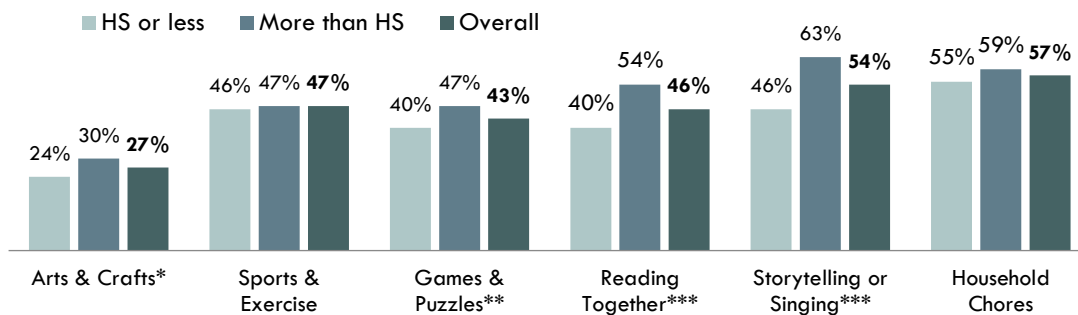
Source: Parent Information Form 2016. Note: N=1,147-1,219. * Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Use of Local Educational Resources

When asked which types of local educational resources their families used in the last year, the most commonly cited resource was the library (47%), followed by local museums (21%). Relatively few families utilized arts and music programs (14%). There were differences in resource use by maternal education. Children whose mothers had higher educational attainment were significantly more likely to be exposed to all three types of enrichment resources.

Figure 18. Use of Local Educational Resources
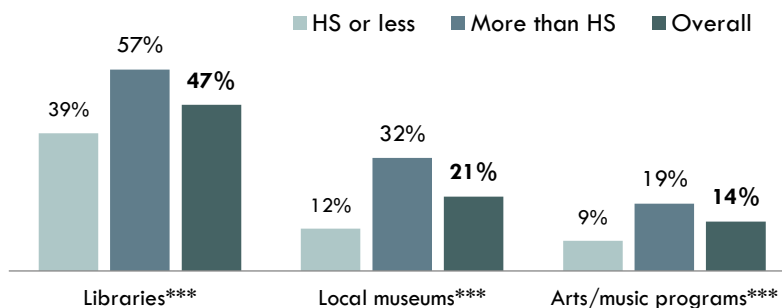
Other Home Practices: Screen Time, Bedtime, and Internet Access

In 2016, the American Academy of Pediatrics changed its screen time guidelines, recommending that young children ages 2 to 5 years spend no more than one hour per day (down from two hours per day) watching TV, using a computer, or playing video games and videos. Thus, results on this measure for 2016 are not equivalent to data for previous years.

While a quarter of children were limited to one hour of screen time per day during the week, only 15 percent were limited to this amount on the weekends. Families in which the mother has a high school diploma or less were more likely to limit screen time during the weekend, though this difference was small; there was no significant difference for screen time during the week.

Close to three-quarters (72%) of kindergartners regularly went to bed no later than 9:00 pm, nearly the same percentage found in previous years. There was no difference in bedtime based on mother's education. About 82 percent of parents indicated that they have access to the internet for personal use, which was again higher than previous years. However, access to the internet at home was significantly less common among families in which the mother had no more than a high school education.

Figure 19. Home Environment: TV, Bedtime, Internet
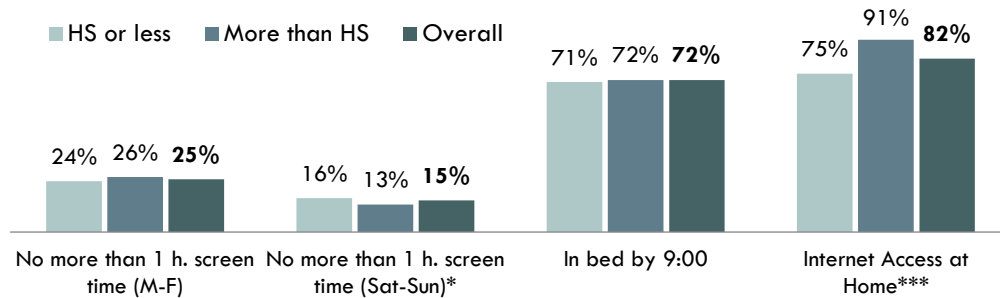
PREPARATION FOR KINDERGARTEN IN THE HOME

Preparation for Kindergarten

School Readiness Information

A majority of parents in 2016 said they had received various kinds of information to help them prepare for their child's entry into kindergarten, and the rates at which parents reported receiving this kindergarten transition information has steadily increased over the past three years. The most common type of information received in the current year was about how and when to register their child for school—84 percent, compared to 78 percent in 2015 (see Figure 20).

As is evident in Figure 21, however, families receiving First 5 school readiness (SR) services were significantly more likely to receive each type of school readiness information than families who did not. For example, 82 percent of children receiving First 5 school readiness services received information about how ready their child was for school, while only 61 percent of those who did not receive First 5 SR services received such information.

Figure 20. Information Received About School Readiness, by Year

■ 2014 ■ 2015 ■ 2016

How ready your child was for K***	General info about skills needed for K***	How to develop skills needed for K***	How/when to register your child for school***
61% 64% **69%**	72% 72% **77%**	69% 71% **76%**	77% 78% **84%**

Source: Parent Information Form 2016, First 5 service records. Note: N=1,291-1,310. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

**Figure 21. Information Received About School Readiness, by First 5 Services, Fall 2016**
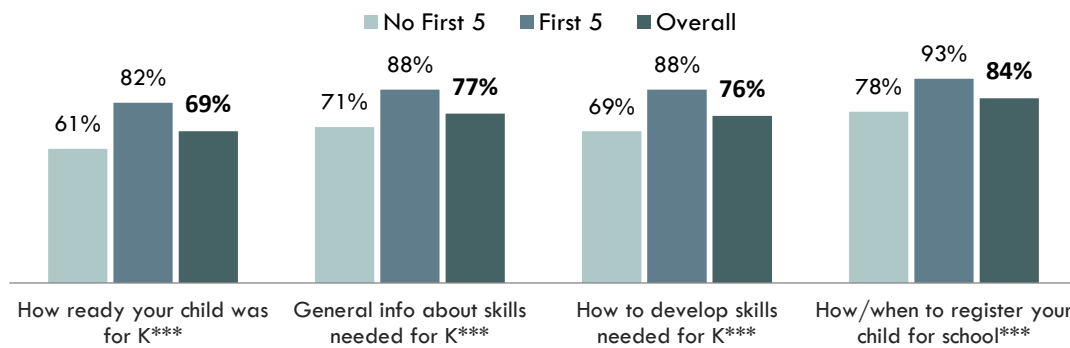
■ No First 5 ■ First 5 ■ Overall

How ready your child was for K***	General info about skills needed for K***	How to develop skills needed for K***	How/when to register your child for school***
61% 82% **69%**	71% 88% **77%**	69% 88% **76%**	78% 93% **84%**

Source: Parent Information Form 2016, First 5 service records. Note: N=1,291-1,310. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

Kindergarten Preparation Activities at Home

In addition to reporting the types of information they received, parents were asked to identify whether or not they engaged in a range of activities to help prepare for their children's transition to kindergarten. The majority of parents reported working with the child on school skills (68%) and providing small playgroup opportunities (58%), with decreasing percentages reporting attending a parent orientation or meeting (44%), meeting the child's kindergarten teacher (41%), asking the child's childcare provider or preschool teacher general questions about kindergarten (37%) or questions about if the child was ready for school (36%), and reading or watching videos about transition to school (29%).

Notably, families who participated in First 5 services were more likely to have engaged in almost all of the preparation activities than families who did not. Among the largest differences, First 5 SR service recipients were significantly more likely to have attended a parent meeting or orientation, asked the child's childcare provider or preschool teacher if their child was ready for kindergarten, and visited the child's elementary school with their child.

> *First 5 service recipients were much more likely to engage in various types of school readiness activities*

Figure 22. How Parents Helped Children Prepare for Kindergarten

Source: Parent Information Form 2016, First 5 service records. Note: N=1,318. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.
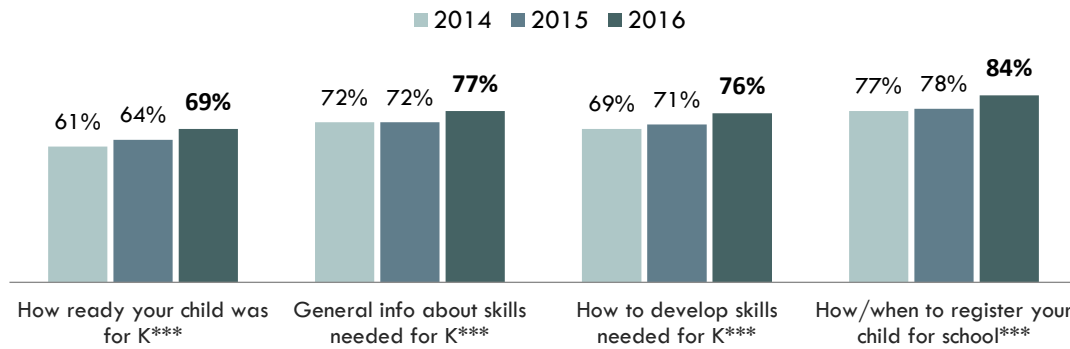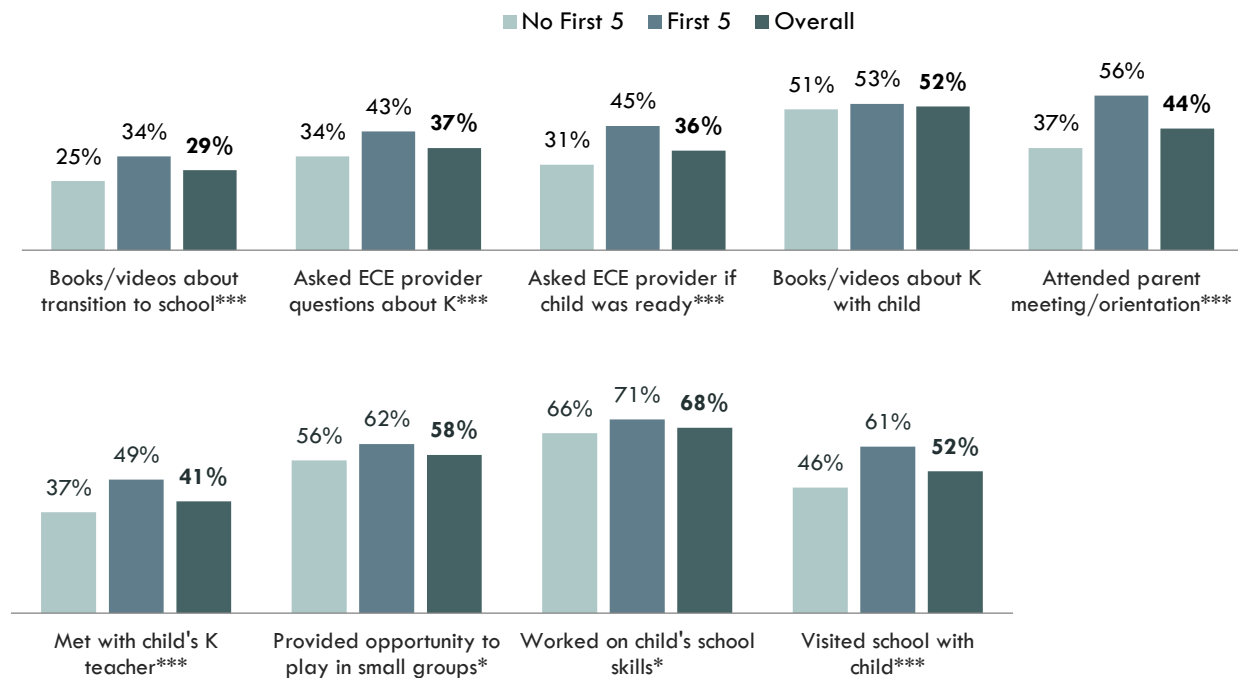
PARENTAL SUPPORTS AND STRESSORS

Use of Parenting Programs, Services, and Other Support

The *PIF* also collected information about families' utilization of parenting services and supports, as presented in Figure 23. The two most common types of support accessed by parents were parenting websites (23%) and education about how their child develops (21%). All other service types were utilized by only 6 to 16 percent of parents. It should be noted that many of the options have changed compared to previous years.

Figure 23. Family Utilization of Parenting Services and Support, by Type

Service Type	Percent
Parenting websites	23%
Education about how your child develops	21%
Education about good parenting practices	16%
Family resource center	9%
Other parenting resources	6%
Home visits from a nurse/provider	6%
Playgroups	6%
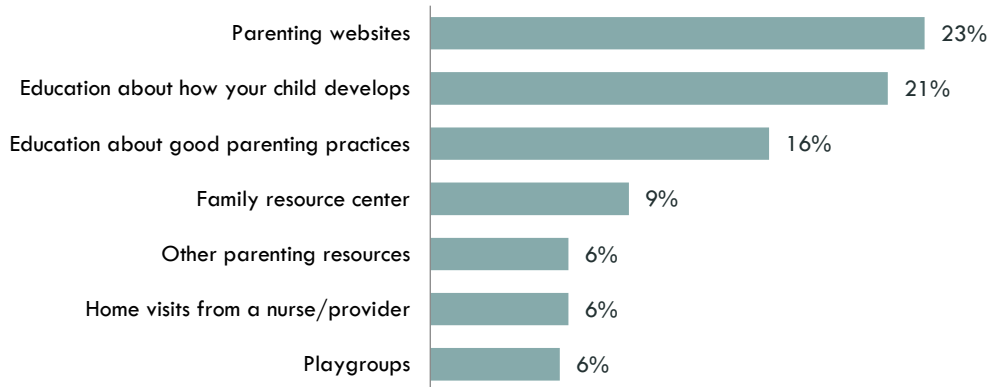
Source: Parent Information Form 2016. Note: N=1,258.

Social Support, Parenting Strain and Protective Factors

Most parents reported that they have parenting support from others, although the extent of this support decreased compared to 2015. For example, 56 percent of parents reported it was "definitely true" that they knew someone who could watch their child while they ran an errand, down from 68 percent in 2015. Similarly, 62 percent reported is was "definitely true" that they had someone to talk to for advice about child rearing, down from 68 percent in 2015.

In 2016, per First 5 Sacramento's request, the definition of *low income* was changed to those earning less than $50,000 per year (up from $35K in prior years). Analyses showed that low income families were significantly less likely than more affluent families to report it was "definitely true" that they have someone to talk to for parenting advice (61% vs. 75%, respectively). There were no differences for having someone to watch their child when they need to run an errand.

Figure 24. Social Support
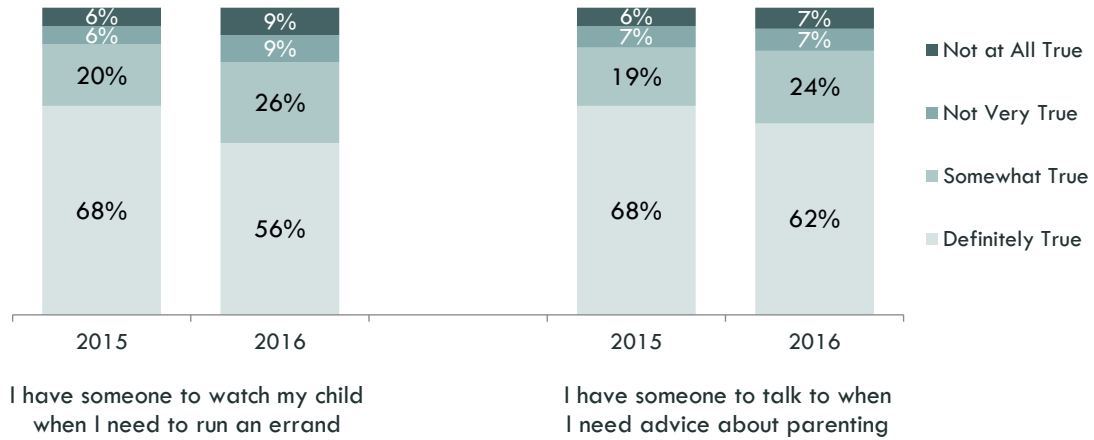
Source: Parent Information Form 2016. Note: N=1,283-1,294. Percentages may not sum to 100 due to rounding.

As the figure below indicates, the vast majority of parents did not show signs of serious parenting strain. Just 4-6 percent of parents reported that their child was hard to care for or bothered them "often" or "almost always." These percentages were similar to those from 2012 to 2015. There were no significant differences by income level for the first two items, but a significantly higher percentage of low income parents reported that they were "rarely" or "sometimes" able to soothe their child (21%) than more affluent parents (12%).

Figure 25. Parenting Strain
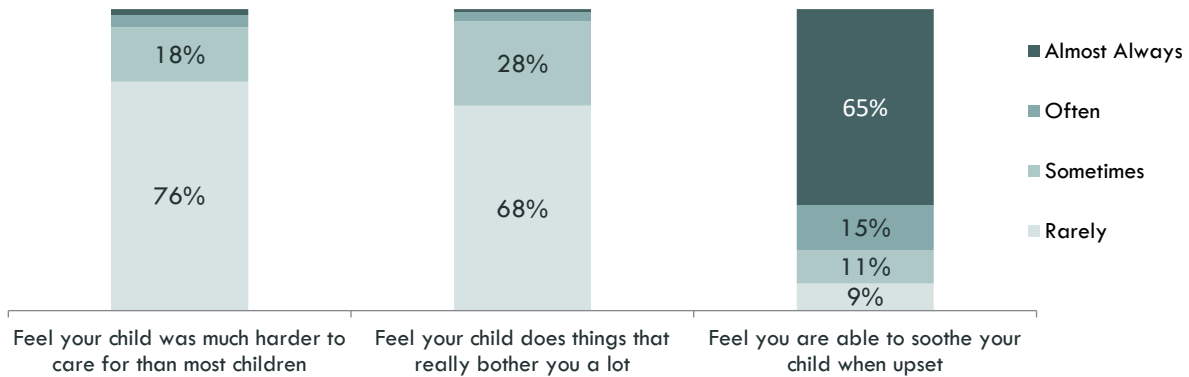
Source: Parent Information Form 2016. Note: N=1,279-1,290. Percentages may not sum to 100 due to rounding. Proportions under 5% not labeled.

There were several new items related to **family protective factors** included on the PIF in 2016, including items asking how much parents agreed that they know how to help their child learn, and whether they would know where to go to get help if they needed food/housing, help making ends meet, or finding a job. As shown in Figure 26, the majority of parents (70% to 94%) "definitely" or "somewhat" agreed with each these statements, although 30% did report that it was "not very true" or "not at all true" that they knew where to go if they needed help making ends meet. There were significant differences by income level across all four items: low income parents were more likely than more affluent parents to report parenting strain.

Figure 26. Protective Factors

Source: Parent Information Form 2016. Note: N=1,281-1,301. Percentages may not sum to 100 due to rounding. Proportions under 5% not labeled.

Household Stressors

Parent Perceptions of Stressors

Parents were also asked to indicate the level of concern they felt about various sources of stress within their household. The figure below shows that worries about money and paying the bills were cited by 58 percent of the sample, including 11 percent who said they were "very" concerned. This is perhaps not surprising considering 85% of families in the sample earned less than $50,000 per year. Fewer parents reported other types of concerns, including work-related problems and problems with one's spouse or partner.

Money, access to food, and managing their child's behavior were significantly more likely to be a concern to low-income families than more affluent families. In contrast, there were no income-based differences in reported concerns about one's spouse or partner, work-related issues, and health or health care issues.

Figure 27. Proportion of Families Indicating Stress by Source of Concern, 2016
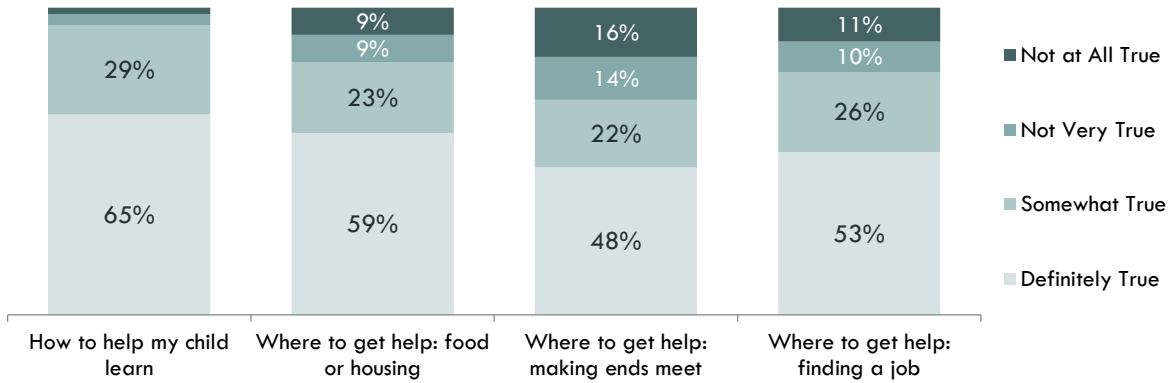

Source: Parent Information Form 2016. Note: N=1,267-1,287. Percentages may not sum to 100 due to rounding. Proportions 5% and under not labeled.
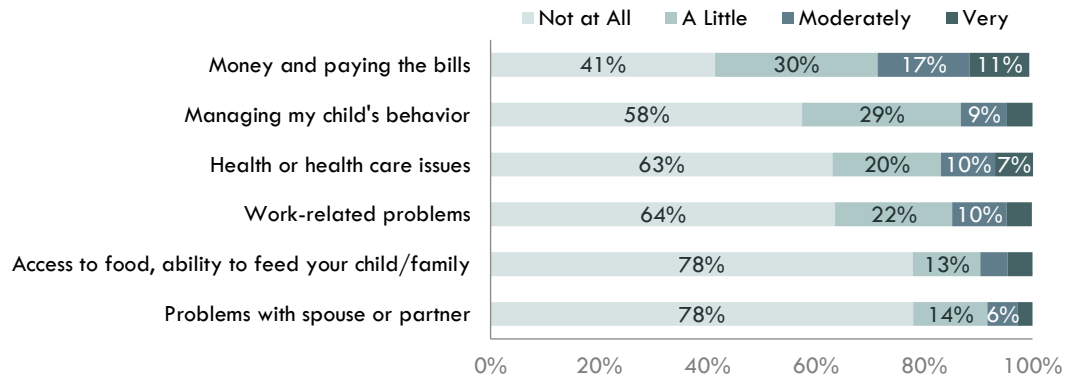
FAMILY BACKGROUND SUMMARY

Families participating in the 2016 school readiness assessment were predominately low income (85% earned less than $50,000) and Latino/Hispanic children formed the largest racial/ethnic group in the sample (38%). More than half of mothers had no more than a high school education, and one-third of children were being raised by a single parent. Positively, nearly all families had access to health care; almost all children had a developmental screening; most children came to school healthy, alert, and well-fed; and 72 percent of children attended preschool or licensed child care.

Family activity engagement and resource use tended to vary depending on the type of activity or resource, maternal educational attainment, and First 5 service receipt. For example, working on school skills, telling stories or singing songs, and involving the child in household chores were reported by the majority of families. Relatively few parents, on the other hand, enrolled their child in an arts or music program or engaged the child in arts and crafts at home. The lower use of arts/music programs may be due to the cost of participating in these types of programs (compared to using libraries and parks, which are free). Maternal educational attainment, however, was positively associated with many educational enrichment resources and family activities, such as visiting libraries and museums, reading, and telling stories or singing songs with the child. Similarly, families who had received First 5 services were more likely to have engaged in some school readiness activities and to have received school readiness information than children who were not involved in First 5 services.

Most parents reported low levels of parenting stress and moderate to high levels of social support. However, low-income parents were less likely to report having someone to turn to for advice on parenting. More than a third of all families had concerns about health, work, and managing their child's behavior, and approximately three-fifths of families felt concerned about money and paying the bills. As might be expected, problems with money and food access were more likely to be a concern for low-income families.

Kindergarten Student Readiness

BASIC BUILDING BLOCKS OF READINESS

Using the *Kindergarten Observation Form,* participating teachers rated the proficiency of their students across 20 readiness skills. All but two of these skills are part of the three *Basic Building Blocks,* as displayed in the pyramid shown in Figure 28: *Self-Regulation, Social Expression,* and *Kindergarten Academics*. Because there are only two motor skills items, they do not constitute a separate building block.

Although <u>all</u> of these skill dimensions are essential components of readiness, the pyramid suggests a framework of skill progression. 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 some of the early academic skills that are the foundation for academic content covered in kindergarten and beyond.

Figure 28.   The Basic Building Blocks of Readiness

These *Basic Building Blocks* will be discussed in greater detail through the remainder of this report. They form the basis upon which to examine general patterns of readiness.

Basic Building Blocks Scores

For each individual readiness skill, children were scored on a scale from *Not Yet* (1) to *Proficient* (4). In 2016, the average overall readiness score was **3.18**—just above the benchmark for *In Progress,* but below that of *Proficient*. This is the same general rating students had in 2012-2016. Across all five years of study, scores were lowest in *Kindergarten Academics* (see Figure 30).

Figure 29. **Average Scores Across the Basic Building Blocks of Readiness, 2016**
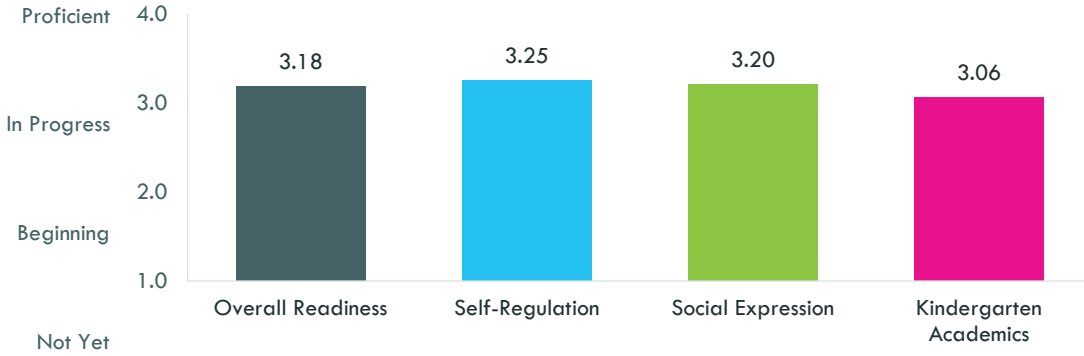
Source: Kindergarten Observation Form 2016. Note: N=1,801-1,912.

Performance across the Individual Skills

Figure 26, on the following page, shows the percentage of children scoring at the *Not Yet, Beginning, In Progress,* and *Proficient* levels across all 20 readiness skills[4]. Most students were proficient in fine and gross motor skills, recognizing basic colors and primary shapes, following directions, playing cooperatively with others, and handling frustration. In contrast, relatively few were proficient in recognizing all letters of the alphabet, rhyming, counting, telling about a story or experience, and answering questions about a story they had heard.

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[4] Scores were omitted for the following items when language barriers were a concern: Follows directions; Expresses needs/wants verbally; Tells about a story; Demonstrates eagerness for learning; Answers questions about key details in literature; Recognizes rhyming words; Counts 20 objects; Recognizes letters of the alphabet; Recognizes basic colors; Recognizes primary shapes.

Figure 30. Percentage of Children at Each Proficiency Level Across Readiness Skills

Legend: ☐ Not Yet ☐ Beginning ☐ In Progress ■ Proficient

MOTOR SKILLS

Skill	Not Yet	Beginning	In Progress	Proficient
Catches a ball		8%	34%	57%
Uses pencil with proper grip	5%	13%	32%	51%

SELF-REGULATION

Skill	Not Yet	Beginning	In Progress	Proficient
Follows directions		11%	30%	55%
Works/plays cooperatively		11%	35%	51%
Handles frustration well	5%	14%	32%	49%
Follows rules		15%	33%	47%
Participates succ. in large group	5%	15%	35%	45%
Stays focused	6%	17%	37%	41%

SOCIAL EXPRESSION

Skill	Not Yet	Beginning	In Progress	Proficient
Expresses needs/wants verbally		14%	29%	53%
Expresses empathy		13%	32%	51%
Demonstrates eagerness for learning	5%	14%	36%	45%
Tells about a story	9%	19%	35%	37%

KINDERGARTEN ACADEMICS

| Skill	Not Yet	Beginning	In Progress	Proficient
Recognizes basic colors	5%	13%		81%
Recognizes primary shapes	5%	11%	31%	54%
Understands structure of books	5%	15%	36%	44%
Writes own first name	12%	14%	31%	43%
Counts 20 objects	9%	17%	39%	36%
Answers quest. about key details in literature	11%	20%	36%	33%
Recognizes rhyming words	27%	25%	21%	26%
Recognizes letters of the alphabet	8%	36%	35%	22%

Source: Kindergarten Observation Form 2016. N=1,742-1,912. Note: Proportions of less than 5% are not labeled. Percentages may not sum to 100 due to rounding. Scores were omitted for language-dependent items when language barriers were a concern.

Greatest Strengths and Needs across Years

While there was some variation over time in the percent of children scoring *Proficient* on each of the readiness items, children consistently showed strengths in certain areas over others. Specifically, children across all five years were strong in counting objects and recognizing basic colors, but had room for growth in knowing their letters and recognizing rhymes.[5] Each of these shows generally upward trends compared to 2012, with the exception of recognizing all letters in the alphabet, which has declined slightly.

Figure 31. Percentage of Children Scoring Proficient, 2012-2016
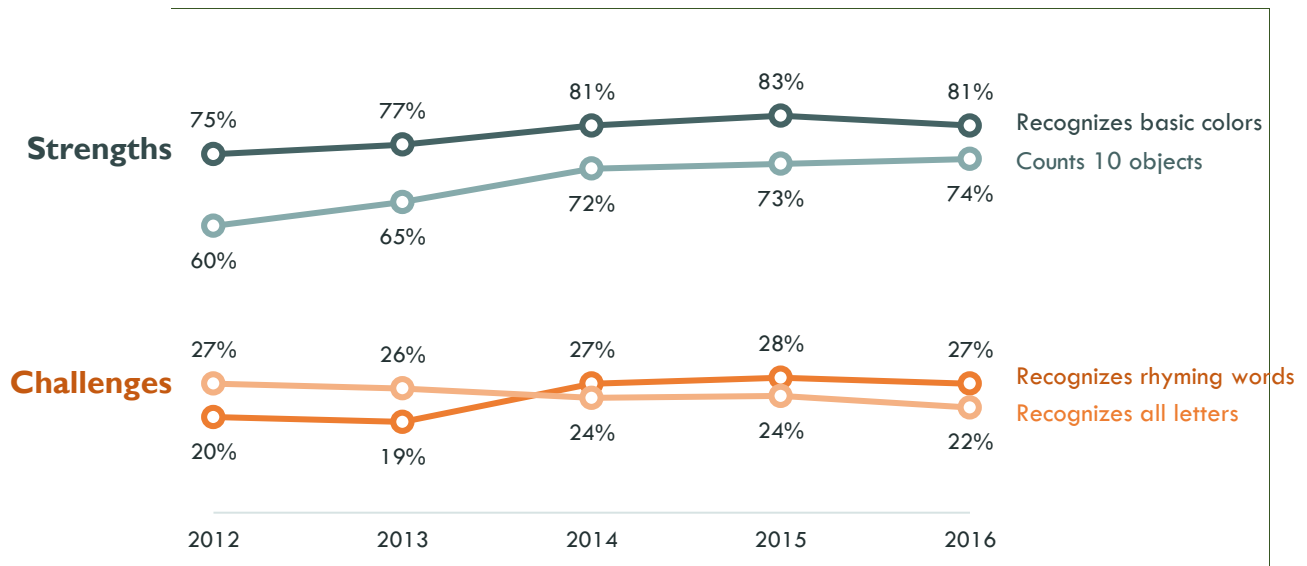
Source: Kindergarten Observation Form 2012-2014. N=1,565 (2012); 1,320-1,540 (2013); 1,598-1,843 (2014); 1,780-1,801(2015); 1,752-1,760 (2016). Note: The 2014-2016 counting item (counts 20 objects) was recoded here to compare proficiency in 2014-2016 to prior years. The administration of this item was adjusted in 2014, likely accounting for the difference in student performance between 2013 and 2014.

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[5] As rhyming is a Common Core-aligned skill to be learned by the end of kindergarten, we did not expect all entering kindergartners to be proficient on this item.

HOW MANY STUDENTS WERE <u>READY</u> FOR KINDERGARTEN?

Students were considered "ready" for Kindergarten if they scored at or above 3.25 on all Building Blocks, meaning they were *Proficient* or nearing proficiency on *Self-Regulation, Social Expression,* and *Kindergarten Academics.* Using these criteria, **35 percent** of the sample were *Ready* for kindergarten, while another 37 percent were *Partially Ready*, having scored at or above 3.25 on some but not all of the *Building Blocks*. The remaining 28 percent were *Not Ready*, having scored below 3.25 on all three *Building Blocks*. Readiness rates for 2015 and 2016 were nearly identical.

Figure 32. Percent Ready for Kindergarten

35% Fully Ready **37%** Partially Ready **28%** Not Ready

Source: Kindergarten Observation Form 2016. N=1,756.

The figure below shows the percentage ready in each domain. As in previous years, the lowest rate of readiness was in the area of *Kindergarten Academics*.

Figure 33. Percent Ready in Each Building Block

Self-Regulation	Social Expression	Kindergarten Academics
58%	59%	48%
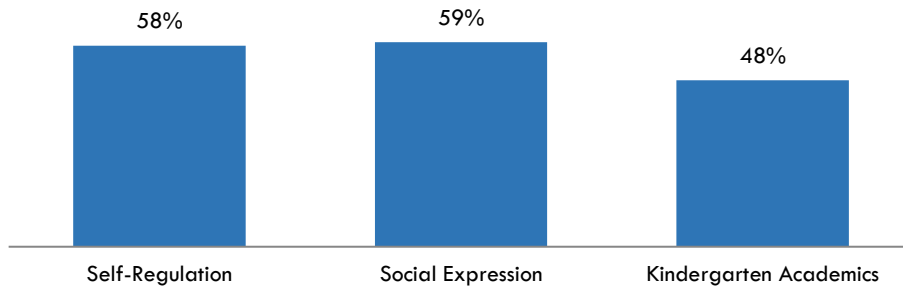
Readiness and Preschool Attendance

Children who attended preschool were significantly more likely to be *Ready* for kindergarten across all readiness domains, compared to their peers who did not attend preschool. As shown in Figure 35, 41 percent of children who attended preschool were *Ready*, compared to just 26 percent of children who had not.

Conversely, children who had no preschool experience were more likely to be *Not Ready* than children who had attended preschool.

Figure 34. Percent *Ready*, *Partially Ready*, and *Not Ready*, by Preschool Experience
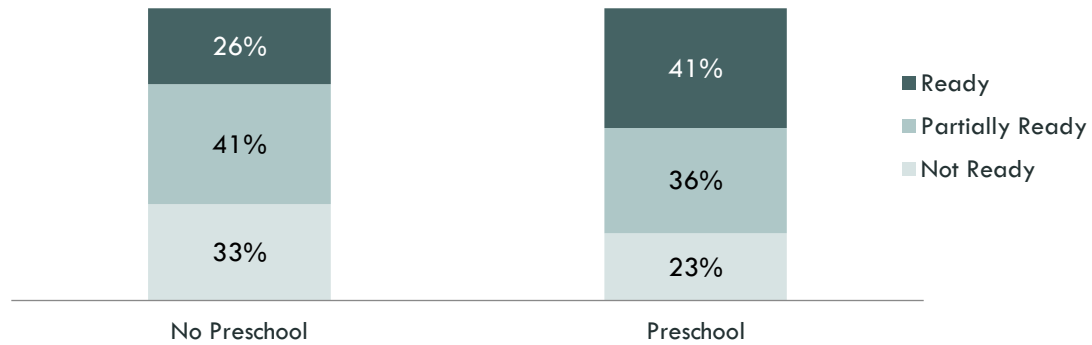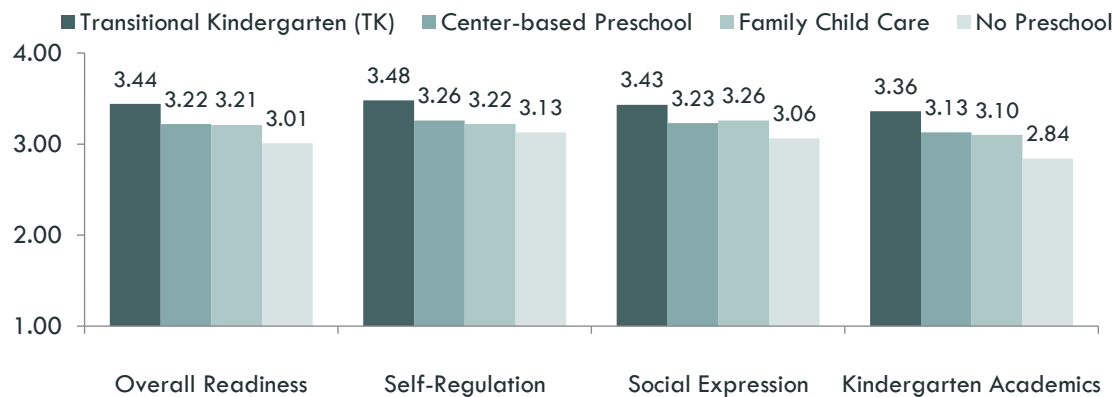

Source: Kindergarten Observation Form 2016, Parent Information Form 2016, First 5 service records. N=1,539. Pearson Chi-square = 32.6, p < .001

Readiness by Type of Pre-Kindergarten Setting

As shown in Figure 36, children who attended transitional kindergarten in the previous year had significantly higher readiness scores than children attending center-based preschool, who in turn had higher scores than children with no preschool. This pattern held for overall readiness and the three Building Blocks. Because there were only 26 children who attended **family child care** in the year prior to kindergarten entry, this group did not differ statistically from any other group across most comparisons. As is visually evident, however, the readiness scores for children in family child care were nearly identical to those in center-based preschool.

Figure 35. Readiness Scores, by Preschool Experience (Adjusted for Other Child/Family Factors)

Source: Kindergarten Observation Form 2016, First 5 service records. Note: N=1,756-1,862. N's by setting: No Preschool (648-712), Family Care (25-26), Center-based Preschool (777-810), Transitional Kindergarten (306-314). *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

WHAT ARE THE KEY PREDICTORS OF SCHOOL READINESS ACROSS THE FIRST 5 NETWORK?

This section presents an analysis of the relationship between readiness and a wide range of child and family backgrounds and experiences. These potential "predictors" of readiness included child demographics (e.g., age, gender, race/ethnicity, English Learner status, special needs); family characteristics (e.g., income, mother's education, parental stress, parental use of resources); early educational experiences; child health/well-being; school attendance; school readiness activities; family protective factors; and receipt of First 5 services (e.g., literacy programs, parent education, preschool).

Each potential predictor was tested for its association with school readiness through an analysis called multiple regression. This approach allows us to look at how a set of variables are uniquely related to readiness levels, holding constant any other possible predictors. For example, it allows us to examine how preschool experience is related to readiness levels above and beyond the contribution from other factors, like family income and maternal education level. In addition, the regression analyses conducted for this report utilized multilevel modeling techniques, which help account for similarities that exist among students within a classroom and for unmeasured variations in classrooms (e.g., different teachers, different classroom environments, and different groups of peers).[6]

It is important to note that a multivariate approach like this cannot conclusively determine *why* children have different levels of readiness, and cannot be used to infer that certain predictors necessarily *caused* readiness. It is simply a method of understanding which *observed and measured characteristics* tend to be associated with readiness. In the absence of a controlled experiment, the possibility remains that other factors not measured in this study account for differences in school readiness.

Predictors of Overall Readiness

Figure 37 displays the predictors significantly associated with overall kindergarten readiness scores across the First 5 network, in order of predictive strength. Similar to the previous three years, **age, child well-being, special needs, prior preschool or transitional kindergarten (TK) attendance,** and **gender** were significant predictors of readiness.

The pattern was slightly different this year, however, as child's age was clearly the single strongest predictor. Children who were older when they entered kindergarten had higher readiness scores. Child well-being was the second strongest predictor, with children who came to school well-rested and well-fed had significantly higher readiness scores than children who did not.

Children who attended a licensed preschool—both First 5-supported and other programs—or transitional kindergarten had higher readiness scores. Likewise, girls had higher readiness scores than boys, and children without special needs had higher scores than those with a diagnosed disability.

Finally, three parent-related factors were significantly associated with readiness. Specifically, children in **higher income** households had higher readiness skills. Controlling for other factors, including maternal education, parents who engaged in a greater number of **school readiness activities** (e.g., working on school skills with the child, meeting the child's teacher, attending a parent orientation or meeting, reading books about kindergarten) also had children with significantly higher readiness scores. Children whose families **read** with them at least five times a week had higher readiness scores than those who read less frequently. Additionally, we found that parents who reported having lower levels of **parenting strain related to their**

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[6] This technique is used for "nested" data (e.g., students nested within classrooms).

child's behavior had children with stronger readiness skills. Finally, participation in **First 5-funded parent education** was linked to higher readiness scores.

How to Interpret Figure 36:

1. *Predictors are listed in descending order of their association with overall school readiness.*

2. *Only statistically significant predictors are shown.*

3. *The strength of each predictor has been standardized for comparison purposes. This makes it possible to compare factors on a common scale even if they were initially measured on different scales.*

Figure 36. Strongest Predictors of Overall School Readiness (in Order of Strength)
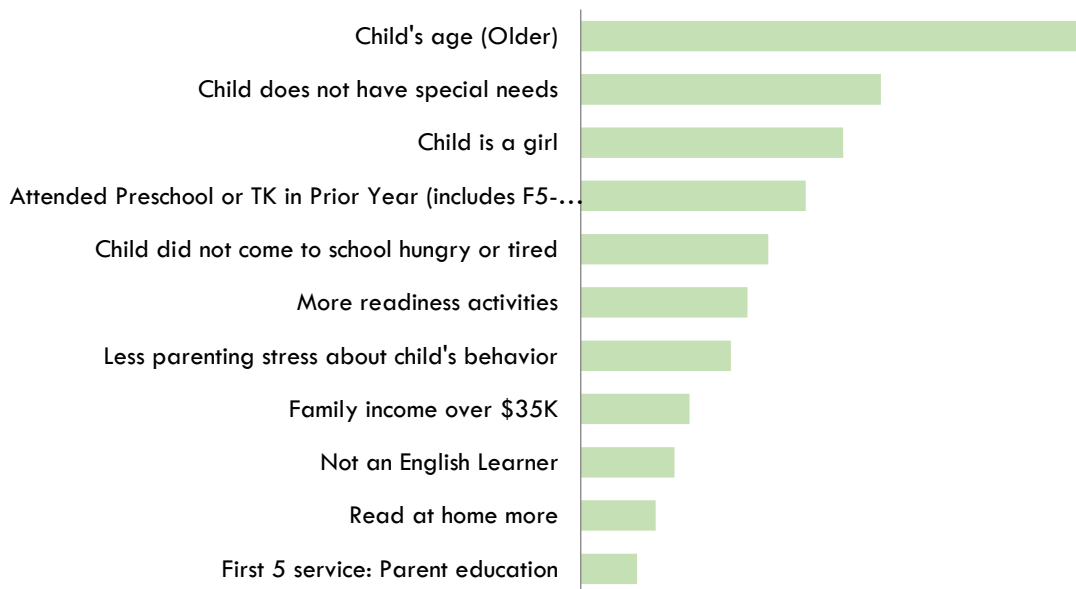
What are the Specific Gains in Kindergarten Readiness Associated with First 5 Preschool Attendance?

Figure 37 shows the differences in readiness scores children who attended a First 5-supported preschool compared to children who did not attend any preschool, after adjusting for other factors linked to readiness, including child and family demographics. Children who attended preschools supported by First 5 readiness services had significantly higher overall readiness scores than children who did not attend preschool. These children also had significantly higher *Self-Regulation*, *Social Expression,* and *Kindergarten Academics* scores.

Figure 37. Readiness Scores, by F5-Supported Preschool Experience (Adjusted for Other Child/Family Factors)
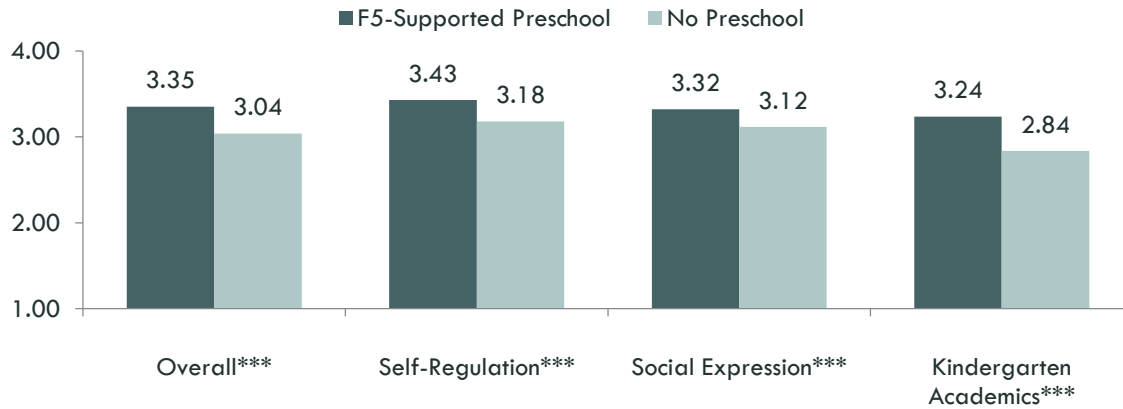
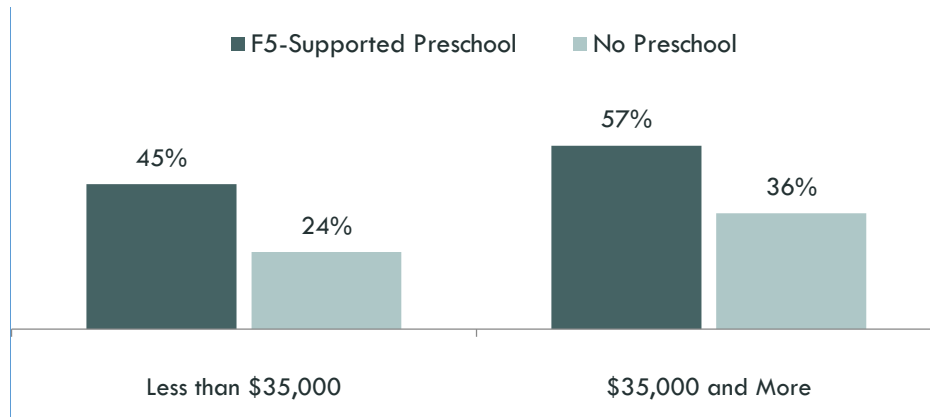Source: Kindergarten Observation Form 2016, First 5 service records. Note: N=610. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

The figure below shows the percentage of children ready by preschool attendance *and* income,[7] adjusting for other factors. The effects of both income and setting are evident in Figure 39. Children attending First 5-supported preschool are more ready than children with no preschool experience, and children from families making $35,000 or more per year are more ready than children from families making less than $35,000 per year. Unlike last year, the effect of preschool attendance was similar for both low income and more affluent families.

Figure 38. Percent Ready for School, By F5-Supported Preschool Experience and Family Income (Adjusted for Other Child/Family Factors)

Source: Kindergarten Observation Form 2016, Parent Information Form 2016, First 5 Records. Note: N=618. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.

The figure below shows adjusted readiness scores for English Learners, comparing those who attended a First 5 supported preschool and those who did not attend preschool. Those who attended a First 5-supported preschool had higher readiness scores *Overall,* and in *Kindergarten Academics* and *Self-Regulation.*

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[7] We used the cutoff of $35,000 for this analysis as well due to lack of variance associated with a cutoff of $50,000 (see footnote 7).

Somewhat unexpectedly, they did not have significantly higher scores for *Social Expression*. English Learners who had participated in First 5 family literacy services also had higher readiness scores.

Figure 39. Readiness Scores for English Learners, by F5-Supported Preschool Experience (Adjusted for Other Child/Family Factors)

Source: Kindergarten Observation Form 2016, First 5 service records. Note: N=610. *Statistically significant at p<.05; **statistically significant at p<.01; ***statistically significant at p<.001.
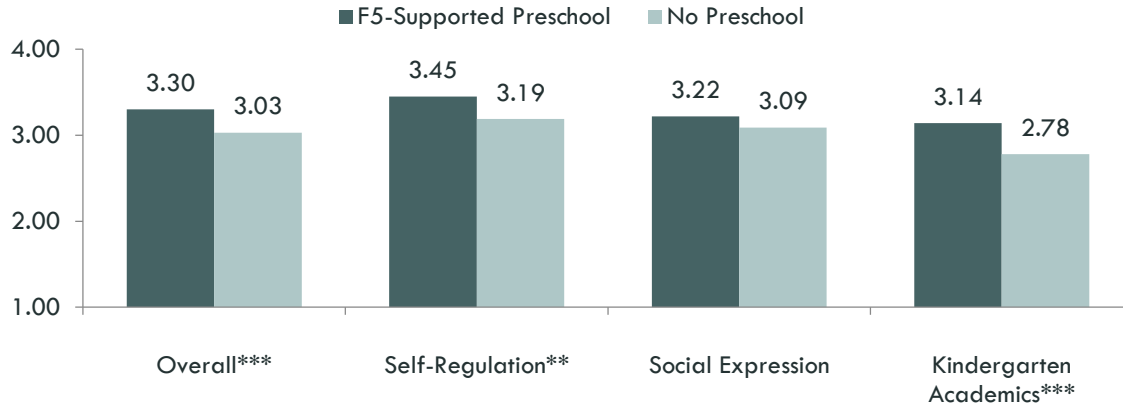
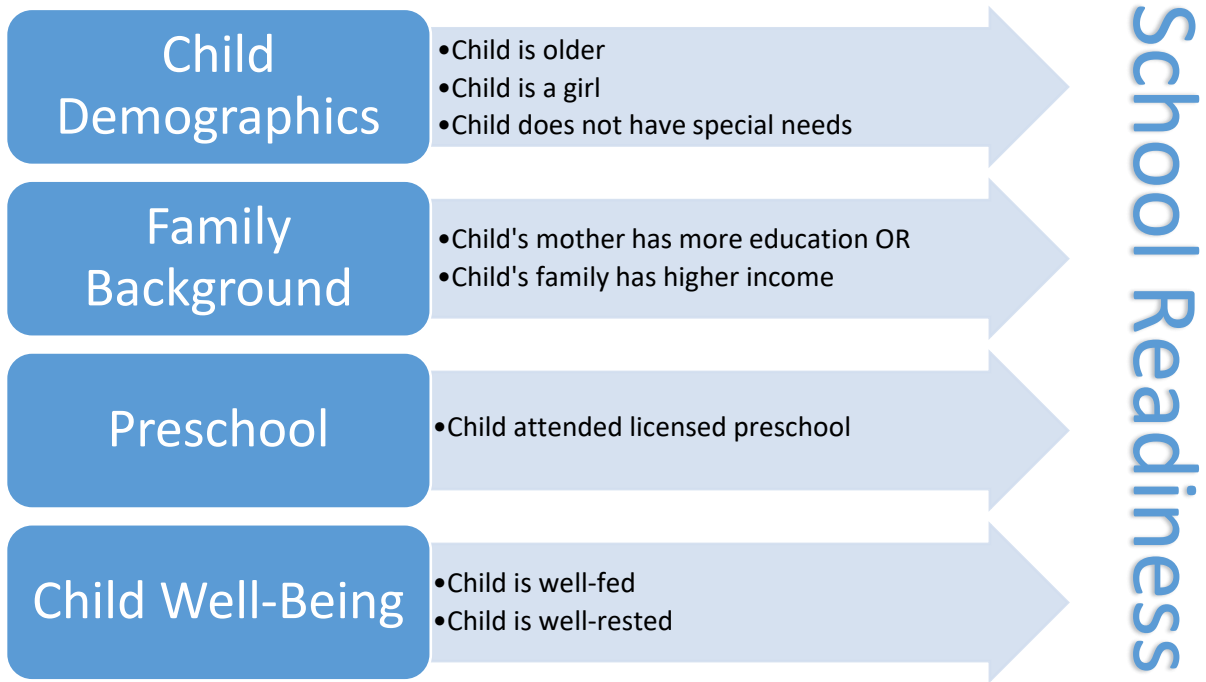## Other First 5 School Readiness Services, Readiness and Other Outcomes

First 5-funded parent education (including family literacy) was also associated with higher readiness scores, including *Overall Readiness*, *Self-Regulation*, *Social Expression* and *Kindergarten Academics*. The boost was significantly larger for children from low-income families.

In addition to higher readiness scores, First 5 services were associated with other positive outcomes important for kindergarten readiness and later academic success. Specifically, families who participated in any First 5 service read more frequently at home, engaged in more kindergarten preparation activities (such as visiting the elementary school and working on school skills), and received more information about school readiness.

What Predictors of Readiness Did We Find across All Five Years?

As the following graphic illustrates, there were four categories of factors that predicted readiness across all five readiness studies in Sacramento: child demographics, family background, preschool attendance, and child well-being. More specifically, school readiness was consistently predicted by child gender, age, and special needs; maternal education and family income; licensed preschool attendance; and child fatigue and hunger. These characteristics and experiences contributed to readiness in all five years independently of one another and over and above other factors that play a role in readiness. For family background, maternal education and family income are strongly associated with each other. At least one these was a significant predictor each of the five years.

Figure 40. Common Predictors of Overall Readiness, 2012-2016

Child Demographics	•Child is older •Child is a girl •Child does not have special needs
Family Background	•Child's mother has more education OR •Child's family has higher income
Preschool	•Child attended licensed preschool
Child Well-Being	•Child is well-fed •Child is well-rested

School Readiness

Summary and Conclusion

In 2016, the fifth annual school readiness study in the First 5 Sacramento network was conducted. As in previous years, most families in the study were low-income (68% earned under $35,000) and came from diverse racial/ethnic backgrounds (36% of children were Hispanic/Latino, 16% were Asian, 13% were African American, and 17% were mixed race/ethnicity). Nevertheless, children in the study had several types of experiences and backgrounds that helped prepare them for school. For example, 72 percent of children had attended preschool or TK in the prior year. Moreover, nearly all children were connected to regular health care and came to school healthy, and most had received health and developmental screenings.

SAMPLE

- Demographics have remained fairly consistent over the past five years, including high rates of low income and lower maternal education, and a fairly high percentage of Hispanic/Latino children. One exception is a possible upward trend in economic well-being, as evidenced by a decrease in percentages in the lowest income group and slight increase in housing stability.

- It should be noted that even though the same number of schools participated, there were some changes in the specific schools that participated, resulting in a slight shift in district participation (one fewer school in Rancho Cordova, one added school in Twin Rivers). This may have shifted the overall demographics slightly.

Mother's education and First 5 participation were positively related to family engagement in enrichment activities.

The majority of parents also engaged in at least one school readiness activity and few reported significant parenting stressors or problems. However, maternal education level was related to family activity engagement such that enrichment activities, like reading and working on school skills, were more prevalent among families in which the mother had more than a high school education. First 5 participation also related to families' preparation for kindergarten. Children who participated in First 5 school readiness services had parents who received more information about the kindergarten transition and who engaged in more readiness activities with their children.

- A majority of children had attended preschool or TK (72%). There were some differences in early education attendance by race, with most at 72%, Asian/PI at 62%, and other at 52%, indicating some communities may need additional outreach.

READINESS SCORES

Over the five years of readiness studies in First 5 Sacramento's network, the average readiness levels remained just above *In Progress* on the four-point scale of readiness (1=*Not Yet*, 2=*Beginning*, 3=*In Progress*, 4=*Proficient*). Across all four years, students have had the greatest needs in *Kindergarten Academics*, particularly recognizing rhymes and knowing their letters.

Readiness levels varied, however, depending on a range of child and family characteristics and experiences. In all five years, children were better prepared for kindergarten when they were older, female, did not have special needs, and came to school well-rested and well-fed. In addition, children with higher readiness levels tended to come from families of higher socio-economic status. Finally, we consistently found that children who had attended licensed preschool (including First 5-supported preschool) had significantly higher *Overall Readiness* levels than those without preschool experience. In the current study year, we also found parents who engaged in readiness activities and felt they had less parenting strain had children with higher readiness levels.

> We have consistently found readiness relates to child well-being, preschool attendance, and family background—important points of interventions for First 5 and its partners.

FIRST 5 SERVICES

- As in previous years, children who attended a First 5-supported preschool had significantly higher readiness scores than those who did not attend preschool. Unlike last year, there was not a significantly larger boost for low-income children.

- Parent education (including family literacy) was also associated with greater readiness, and lower-income families did benefit more than mid/upper-income families.

- Other benefits of participation in F5-funded services included: reading more at home, participating in more kindergarten preparation activities and receiving more information about the transition to kindergarten.

- While the numbers of children who participated in the transitional summer camp and playgroups were too small to detect associations with readiness, there are plans to conduct multi-year analyses to better understand the impact of these services.

The findings from the 2016 study largely confirm the results from prior studies in Sacramento. Children in Sacramento are better prepared for school when their early experiences involve high-quality preschool and adequate supports for children's well-being. Given the important role family background and home environment play in school readiness, children benefit from supports provided to their parents as well, such as family literacy programs and parent education. First 5 school readiness services that promote readiness for children and their families are particularly beneficial for low-income children. These points of intervention highlight the role First 5 and their partners play in contributing to the school readiness of children in Sacramento County.

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