



SCHOOL READINESS in Alameda County

RESULTS OF THE FALL
2011 ASSESSMENT

Executive Summary

RESEARCH STUDY FUNDED BY:



Snapshot of the 2011 School Readiness Assessment

Background

In 2011, First 5 Alameda County (F5AC) commissioned an assessment of the school readiness levels of new kindergarten students for the fourth consecutive year. Participating districts in the 2011 assessment included Castro Valley, Fremont, Hayward, Livermore Valley Joint, New Haven, Oakland, Pleasanton, San Leandro, and San Lorenzo Unified School Districts.

The assessment included four measurement instruments completed by teachers and parents of entering kindergarten students. Teachers indicated each of their students' proficiency levels on 24 readiness skills and they reported how smoothly students had transitioned into kindergarten. Parents completed a survey that asked them to provide information about children's early care and family environments, as well as basic demographic and background information. Finally, teachers completed a survey about their beliefs about the skills children need for school. Please note that the information presented in this report describes the students and families assessed.

Findings

Research Question	Conclusion and Data Highlights
1. How ready for school were children assessed in Alameda County?	<ul style="list-style-type: none"> • Overall readiness score: 3.26 (on a four-point scale of readiness skill proficiency) • For each individual readiness skill, children were scored on a scale from <i>Not yet</i> (1) to <i>Proficient</i> (4). Scores were highest in the <i>Self-Care & Motor Skills</i> area (3.45) and lowest for <i>Self-Regulation</i> (3.18). • Though most students were meeting or exceeding the levels of proficiency their teachers felt they needed at kindergarten entry, 28% of students fell far below their teachers' expectations in the area of <i>Self-Regulation</i>.
2. What factors are associated with higher levels of school readiness?	<ul style="list-style-type: none"> • Findings revealed that child well-being (not being hungry, tired, or ill) was the strongest predictor of readiness. • In addition to demographic and SES factors that were related to readiness (age, gender, family income, maternal education), children without special needs and who were not born with a low birth weight were more ready for school. • When children had attended preschool they also tended to have better readiness outcomes. These were focused in <i>Kindergarten Academics</i> and <i>Self-Care & Motor Skills</i>, but were not observed in social-emotional readiness domains. • Families who reported more positive attitudes toward parenting had children who were more ready for school.
3. What is the relationship between participation in F5AC's Summer Pre-K (SPK) program and readiness-related parent and child outcomes?	<ul style="list-style-type: none"> • Compared to parents of children with no pre-k exposure, parents of children enrolled in SPK had received more readiness information and engaged in more transition activities with their child. • After controlling for demographic and SES differences, results revealed that SPK students were similar to students with a longer-term preschool experience in all areas except <i>Kindergarten Academics</i>.

Executive Summary

Background

Each fall, Alameda County schools and teachers welcome a diverse mix of students into their classrooms to start school. The diversity of this student population encompasses not only ethnic, linguistic, and socioeconomic differences, but also differences in how well-equipped they are with the skills they need to launch successful school careers.

To help ensure that students entering school have every opportunity to succeed, First 5 Alameda County (F5AC) provides a comprehensive set of services and supports that enhance children's health and well-being through their first five years. Focusing on county regions where there are disproportionately high levels of poverty, neighborhood violence, and poor health outcomes, F5AC delivers family support services, promotes high-quality early care and education, and works with various partners in school districts, healthcare, and other community settings to improve outcomes for children.

In 2011, F5AC commissioned Applied Survey Research (ASR) to conduct an assessment of the school readiness levels of new kindergarten students for the fourth consecutive year. The 2011 assessment took place in nine Alameda County school districts, including both F5AC-targeted regions in which students largely come from low-income, high-need families, as well as a small set of students from higher-income areas of the county as well. The Fall 2011 readiness study investigated three primary questions related to the school readiness levels of entering kindergarten students:

1. How ready for school are the sampled kindergarten students?
2. What family factors and child characteristics are associated with higher levels of school readiness?
3. What is the relationship between participation in F5AC's Summer Pre-K Program and key readiness-related parent and child outcomes?

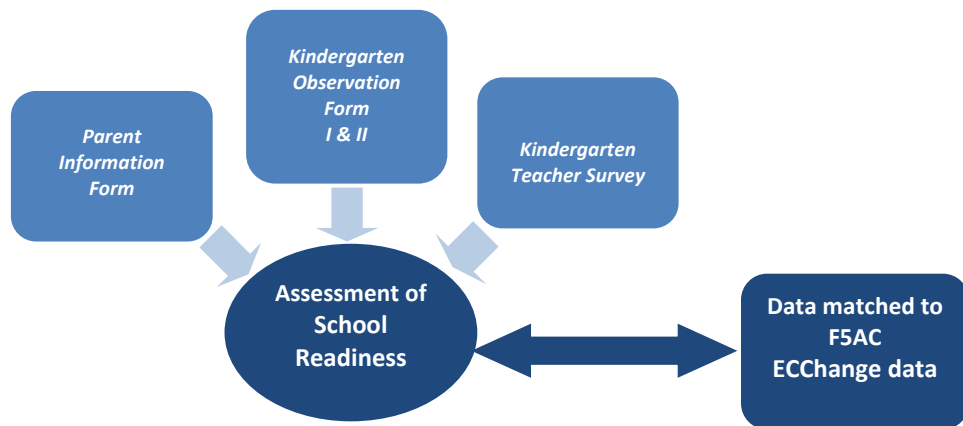
Overview of the Assessment

Eleven years ago, ASR created a method and set of validated tools for measuring school readiness that have since been used with approximately 30,000 students in several Bay Area counties, as well as in other parts of California and in other states. In Alameda County, F5AC first contracted with ASR to implement a pilot assessment of school readiness in Fall 2008. Since that time, the school readiness study has nearly tripled in size; in 2011, close to 1,600 families consented to have their children take part in the study (consent rate = 77%).

Participating kindergarten teachers were trained to serve as expert observers of their students, rating the proficiency of each child in their classroom across 24 readiness skills. Detailed observations of the children were enriched by information gathered on each child's family. Parents of the assessed children completed a survey that provided a window into the family and community factors that are associated with children who arrive ready (and not) for

kindergarten. The response rate for the *Parent Information Form* was good – 83 percent of consenting families returned a completed form. In addition, all participating teachers provided their perspectives on school readiness via the *Kindergarten Teacher Survey*. ASR drew upon these sources of information – child assessments as measured by the *Kindergarten Observation Form (I and II)*, family information as measured by the *Parent Information Form*, and teacher viewpoints gathered via the *Kindergarten Teacher Survey* – to construct a comprehensive picture of children’s readiness for school, as well as the factors associated with higher readiness levels. An additional source of data came from F5AC’s ECChange database, which contains records of those who have received F5AC services. Children in the assessment were matched to records in this database in order to examine the association between their readiness levels and their participation in F5AC programs and services.

Figure A. **Sources of Information to Assess the Readiness of Incoming Kindergarten Students**



Findings

Students and Families in the Assessment

Information collected about participants in the Alameda County school readiness assessment reveals a diverse group of students entering kindergarten in 2011:

- Hispanic/Latino students made up half of the students in the study sample.
- Just over half of the students (52%) were English Learners.
- Even with this high proportion of English Learners, more than half of students were characterized by their teachers as having English as their preferred language (58%). Thirty-six percent of students spoke Spanish as their preferred language, and three percent preferred Chinese. Small percentages spoke Filipino/Tagalog, Vietnamese, Farsi or Dari, Punjabi or Hindi, or another language as their primary language.
- Forty-two percent of students had a mother with a high school education or less.

- Some families were struggling financially; 47 percent indicated that their family income was less than \$35,000, 39 percent were on Medi-Cal, and 10 percent were receiving insurance through Healthy Families.
- Ten percent of students had been born to a teen mother; one in five were from a single parent household, and 23 percent had a parent who had lost a job in the past year.

Figure B. **A Portrait of Students in the Study**

Child/ family characteristic	Percent of students
Race/ethnicity	
Hispanic/Latino	50%
Caucasian	18%
Asian	10%
African American	9%
Filipino	3%
Pacific Islander	2%
Alaskan Native or American Indian	1%
Multi-racial	7%
Other	<1%
Percent English Learners	52%
Preferred language	
English	58%
Spanish	36%
Chinese/Mandarin/Cantonese	3%
Filipino/ Tagalog	1%
Vietnamese	1%
Farsi or Dari	<1%
Punjabi or Hindi	1%
Other language	1%
Mother has no education beyond high school	42%
Markers of low income	
Family income is less than \$35,000	47%
Receive Medi-Cal	39%
Receive Healthy Families	10%
Child was born to a teen mother	10%
Single parent household	20%
Parent lost job in the last year	23%

Source: Kindergarten Observation Form (2011).

Note: Percentages may not sum to 100% due to rounding. Sample sizes are 1567, 1587, 1597, 1281, 1215, 1294, 1294, 1212, 1293, and 1257.

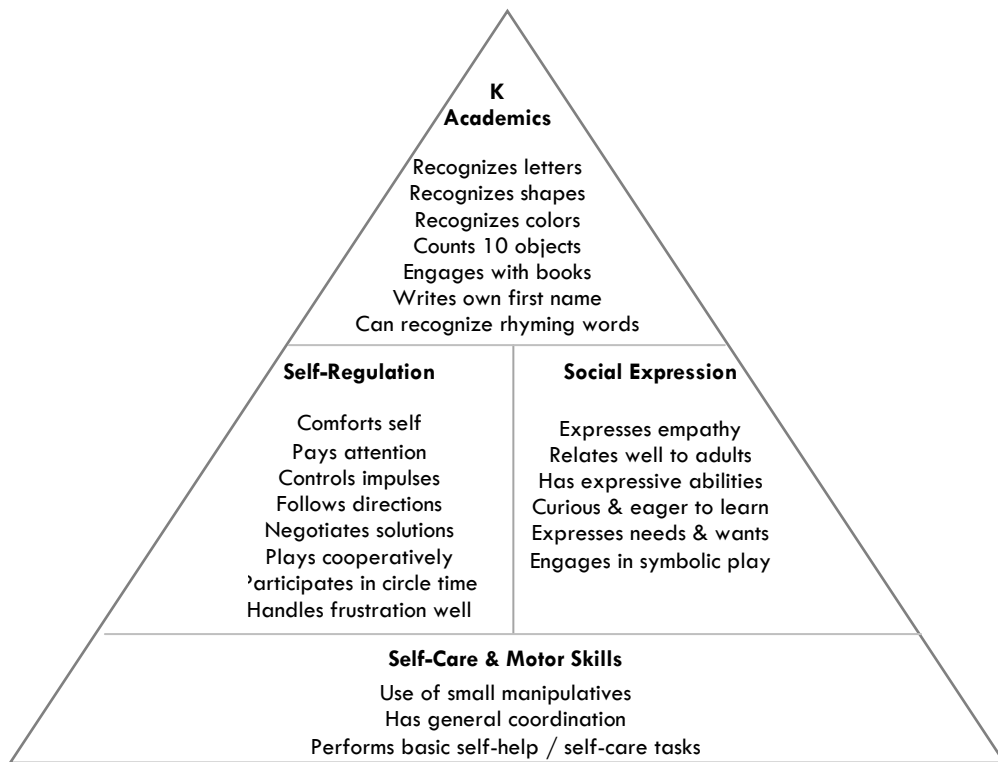
How Ready for School Are the Sampled Kindergarten Students?

There are multiple dimensions of kindergarten readiness. Statistical exploration of children's performance across 24 readiness skills revealed that skills reliably sort into four *Basic Building Blocks* of readiness:

1. *Self-Care & Motor Skills*
2. *Social Expression*
3. *Self-Regulation*
4. *Kindergarten Academics*

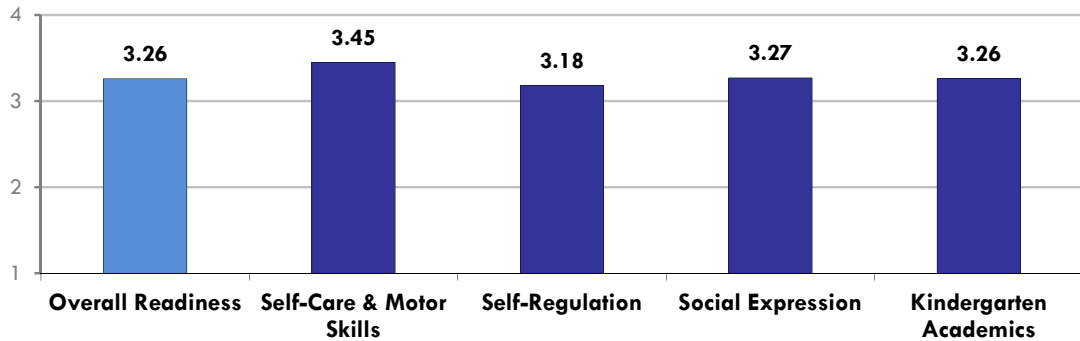
Figure C shows the 24 individual skills on which students were assessed, as well as how the skills sort into the four *Basic Building Blocks*.

Figure C. ***Basic Building Blocks of Readiness***



The chart that follows shows students' readiness levels across the *Basic Building Blocks*. Children tended to score highest on *Self-Care & Motor Skills* (average score = 3.45 out of 4 possible) and to have the greatest room to grow in their *Self-Regulation* skills (average score = 3.18). Across all the readiness skills measured, students' average skill level was 3.26 – well above the “In progress” level.

Figure D. **Students' Proficiency across Four *Basic Building Blocks* of Readiness**

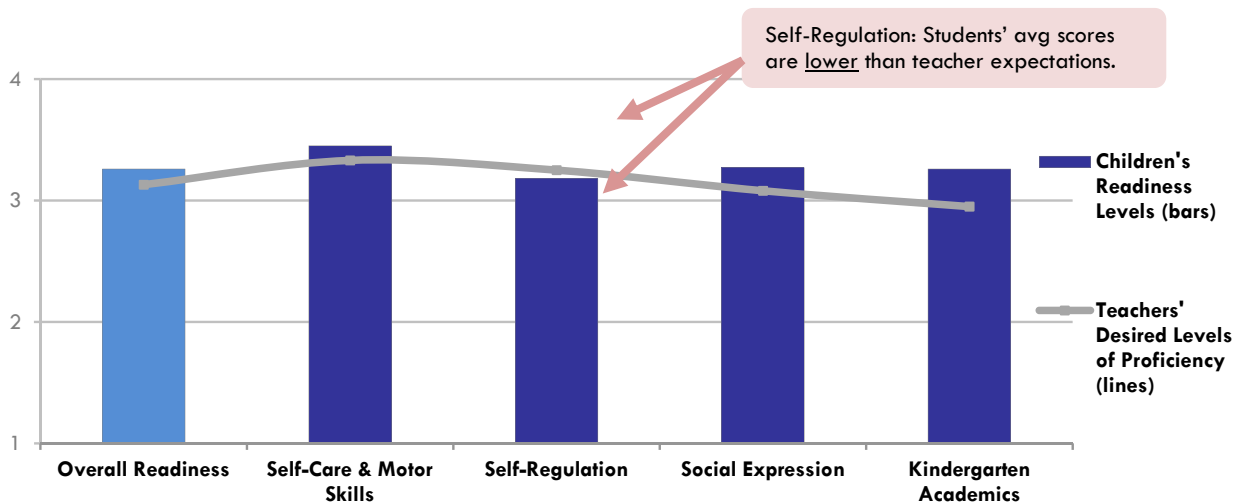


Source: Kindergarten Observation Form I (2011).

Note: Scores are based on 1,586-1,595 students. Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=beginning, 3=in progress, 4=proficient.

An important component of the Fall 2011 school readiness assessment in Alameda County involved getting feedback from participating teachers to help contextualize the readiness levels observed in their entering kindergarten students. The following figure maps students' observed skill levels on the *Basic Building Blocks* against their teachers' expectations about the levels of proficiency needed in order to be school-ready; the bars show students' skill levels and the line indicates teachers' expectations. As the figure shows, students' average scores exceeded teachers' average skill expectations across all domains of readiness except one – students' *Self-Regulation* skills. In this one domain of readiness, students' average skill levels were slightly below the levels their teachers believed they should be for a successful transition to kindergarten.

Figure E. **Students' Skill Levels in the Context of Teacher Expectations**



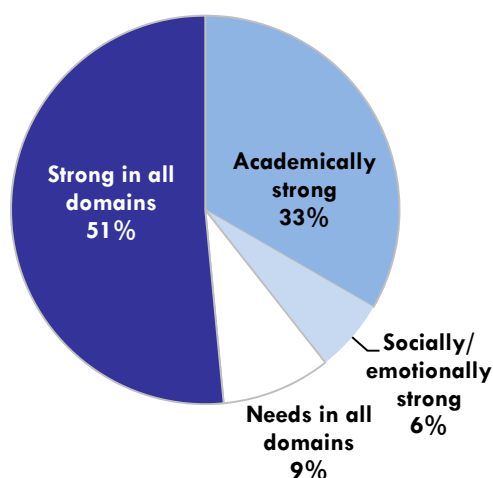
Source: Kindergarten Observation Form I (2011) and Teacher Survey of the Importance of Readiness Skills (2011).

Note: Scores are based on 1,586-1,595 students and 88 teachers. Scale points are as follows: 1=not yet, 2=beginning, 3=in progress, 4=proficient.

Children exhibited different patterns of readiness strengths and challenges as well. For a more detailed look at their different patterns of readiness, children were sorted into one of four *Readiness Portraits* – *Strong in all domains*, *Socially/emotionally strong*, *Academically strong*, and *Needs in all domains* students – based on their pattern of proficiency across the readiness skills.¹

- About half (51%) of students entered kindergarten classrooms as *Strong in all domains* – at or near proficiency across the board in all four *Basic Building Blocks* of readiness. These children were well-prepared to succeed in school.
- Nine percent of students demonstrated readiness needs across all four of the readiness dimensions. These children sorted into the *Needs in all domains* group – those who were not yet or just beginning to develop the skills they need to be successful in kindergarten.
- The remaining children exhibited mixed patterns of readiness. *Socially/emotionally strong* (6% of students) were well-equipped on the social-emotional dimensions of readiness, but they had needs in the realm of *Kindergarten Academics* – learning their letters, numbers, shapes, and colors.
- In contrast, one third of students (33%) sorted into the *Academically strong* group. These students were doing well in their early academics; however, they demonstrated greater challenges in the social-emotional areas of readiness (skills within the *Self-Regulation* and *Social Expression* dimensions).

Figure F. **The Prevalence of Each Readiness Portrait**



Source: Kindergarten Observation Form I (2011).

Note: This chart is based on 1,572 students.

Students who were *Strong in all domains* tended to be older than their peers, they were less likely to be English Learners, and most had attended preschool. They were more likely than their peers to come from families with higher income and education levels, and their parents reported greater engagement and support than parents of students in other *Readiness Portraits*.

¹ Children were sorted into one of the four *Readiness Portraits* via a data-driven technique called cluster analysis.

What Family Factors and Child Characteristics Are Associated with Higher Levels of School Readiness?

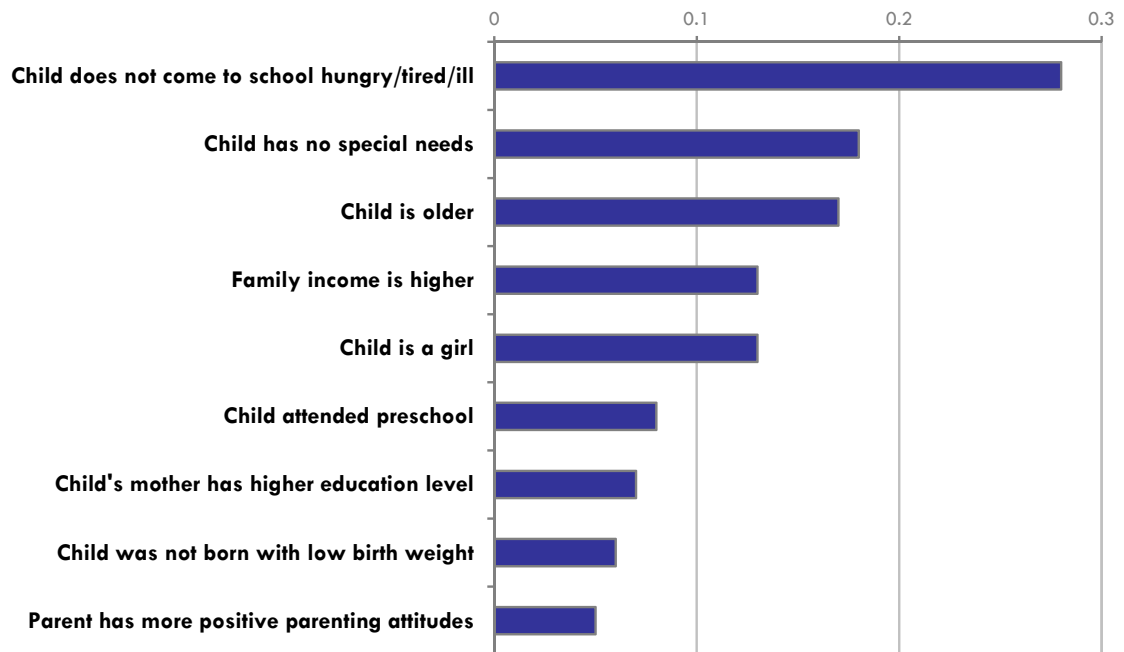
A set of analyses was conducted to examine what factors were associated with greater school readiness. These analyses take into account all important measured variables simultaneously, so that the relationship between readiness and particular family, student, and school-level factors could be examined after “ironing out” the influence of other, related factors.

The strongest predictor of readiness was students’ basic well-being. Although there were few children who were frequently seen by teachers as being hungry, tired, or ill, students with these issues had readiness levels that were significantly lower than those of their peers. Follow-up analyses examining who these students were revealed that they tended to come from homes with significant stressors, such as single parent homes and parents with greater life concerns and more frequent negative attitudes about parenting.

Other significant predictors of readiness included not having special needs, being older, being a girl, not being born with a low birth weight, and coming from families with higher income and education levels.

Some significant predictors point to opportunities for enhancing readiness through targeted community interventions. Preschool experience was associated with enhanced readiness (although not in social-emotional readiness domains). Children of parents who had more positive parenting attitudes were more ready for school than peers whose parents reported frequent negative feelings about parenting.

Figure G. **Relative Strength of Factors Significantly Associated with Overall School Readiness**



Source: Kindergarten Observation Form I (2011) and Parent Information Form (2011).

Note: Values for each factor listed above represent standardized beta coefficients that were significant at $p < .05$. For a full listing of all variables entered into the model, see text. The overall regression model was significant, $F = 21.81$, $p < .001$, explaining 32% of the variance in kindergarten readiness ($R^2 = .33$; Adj. $R^2 = .32$).

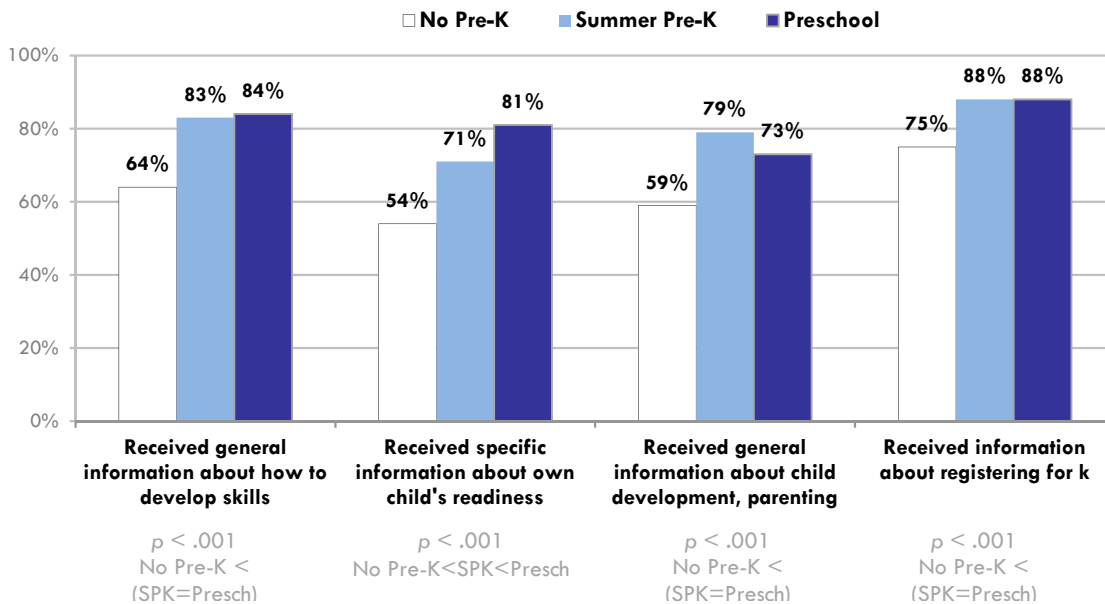
What is the relationship between participation in F5AC’s Summer Pre-K Program and key readiness-related parent and child outcomes?

Students attending F5AC’s Summer Pre-K (SPK) program were much more likely than their peers to be Hispanic/Latino and/or English Learners. The SPK participants were also marginally more likely than their peers to come from a family in which the mother had not been educated beyond high school. Rates of suspected but not-yet-diagnosed special needs were twice as high among the SPK participant group as among those not participating in SPK, indicating either that these students may be in the process of receiving further screenings first initiated in their SPK program, or perhaps that additional resources or support are needed in SPK to help with screening for special needs.

Because the SPK program targets both parents and children in its interventions, analyses examined the association between SPK program participation and changes in parents’ knowledge and behavior as well as the students’ readiness levels at kindergarten entry.

Compared to parents of children with no pre-k exposure, parents of children enrolled in SPK were more likely to have received important information about helping their child get ready for school, and they engaged in more transition activities to get their child prepared for starting kindergarten. For both of these outcomes, SPK families were similar to families of children with a longer-term preschool experience, with one exception: Parents whose child had attended a longer-term preschool experience were more likely than SPK parents to have received specific information about how ready their own child was to start school. SPK program participation was also not associated with any increase in the frequency of home reading behavior. Focusing more intensively on these two interventions in SPK – promoting home reading and providing child-specific readiness information to parents – may be a fruitful avenue for enhancing the readiness of future SPK students.

Figure H. **Parents’ Receipt of Information Related to Readiness, by Pre-K Experience**

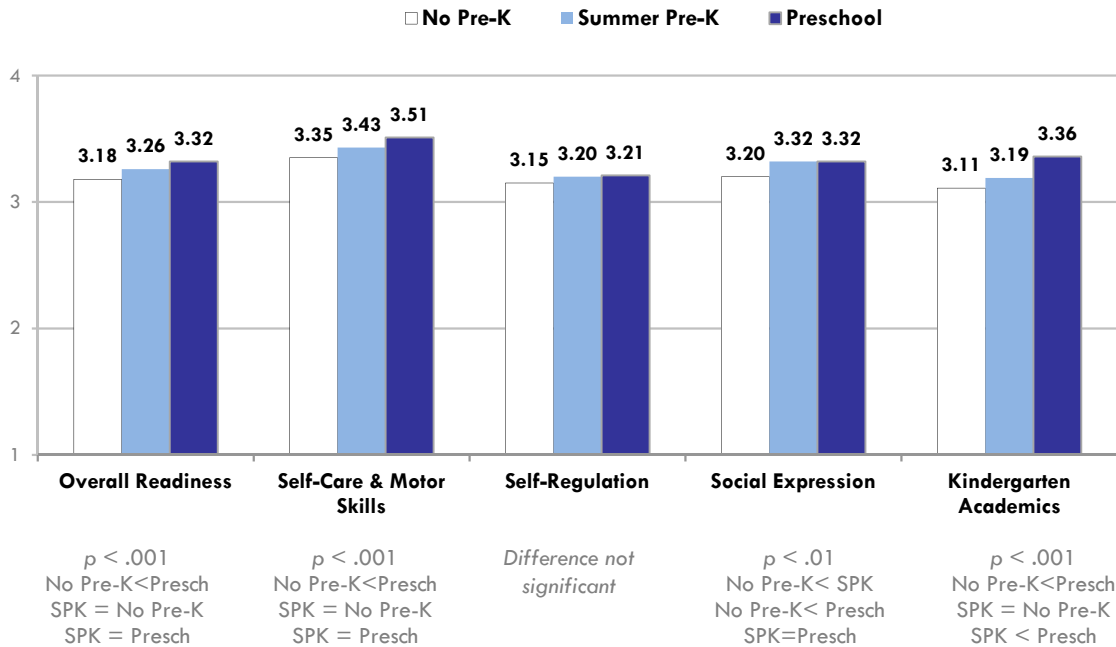


Source: Parent Information Form (2011).

Note: Percentages are based on 343-360 No Pre-K students, 96-100 Summer Pre-K students, and 752-791 Preschool students. Differences in percentages are indicated above, according to chi-square tests. Significant group differences are indicated above.

There was a consistent trend for SPK students to have higher readiness skills than their peers who did not attend any type of preschool program. In the areas of *Self-Care & Motor Skills* and *Kindergarten Academics*, this was not a statistically significant benefit, but it was statistically significant in *Social Expression* skills. In comparisons with students who had a longer-term preschool experience, SPK students were statistically similar on *Self-Care & Motor Skills* and *Social Expression* skills, but they continued to lag behind in *Kindergarten Academics*. In *Self-Regulation* skills, there was no clear benefit to any type of pre-k program.

Figure 1: **Students' Readiness as a Function of Pre-K Experience – Adjusted Means**



Source: Kindergarten Observation Form I (2011).

Note: Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=just beginning, 3=in progress, 4=proficient. Scores are based on 462-466 No Pre-K students, 132 Summer Pre-K students, and 881-885 Preschool students. Differences in mean scores are indicated above, according to analyses of covariance, with control variables noted in regression section, as well as special needs and basic demographics: Maternal education, income, sex, age, and EL status. Post-hoc tests revealed marginal or significant group differences as indicated above.

Conclusions and Recommendations

Consistent trends across four years of readiness assessments in Alameda County suggest several possible directions for community action and interventions.

The Achievement Gap Starts Before Students Enter Kindergarten – and So Should Interventions to Eliminate the Gap

African Americans and Hispanic/Latino students in Alameda County enter school with readiness gaps that parallel those observed 3 ½ years later when they take their third grade California Standards Tests in English-Language Arts. These findings underscore the need for appropriate readiness-boosting interventions that continue to target children and families that have the

greatest readiness challenges, as programs such as F5AC's Summer Pre-K (SPK) program have done.

First 5's Efforts to Improve School Readiness Need to Consider Alameda County's Digital Divide

For the first time in the 2011 kindergarten readiness study, participating families were asked about whether they had access to the internet for their personal (not work-related) use. Results showed large gaps in internet access for different groups of families within the county. Among those who tend to receive more F5AC services and programs (low income families, families with low education levels, racial/ethnic minorities, and families with a child learning English), one in three families (or more) are not able to access the internet. These are also the families reflected in the achievement gap whose children tend to have the greatest readiness needs as they enter kindergarten. It is important to make sure that outreach and education efforts to help enhance child and family outcomes in Alameda County are carefully planned and implemented, using methods and materials that give families equal access to the information and support they need to help their children succeed.

Implementation of a Quality Rating System for Preschool Programs Will Improve our Understanding of How to Enhance Children's Readiness

In the past two years of readiness studies in Alameda County, preschool attendance has been strongly associated with enhanced readiness levels in *Self-Care & Motor Skills* and *Kindergarten Academics* skills, but it was not related to readiness boosts in either *Self-Regulation* or *Social Expression*. This mirrors a great deal of national literature that shows mixed (if any) readiness benefits for social-emotional domains among children who have attended preschool. Clearly, not all preschool programs are equal in their quality. The next generation of local research on Alameda County students' readiness would be strengthened if even more data could be gathered and analyzed about children's preschool experiences, such as the types of preschool programs children have attended and, when available, standardized measures of the quality of those programs. The ability to "unpack" different preschool experiences that children have had will help to identify the elements of preschool programs that promote not only academic readiness, but also social and emotional readiness, which kindergarten teachers continue to report is a challenge for a large portion of their students as they are starting school.

Development of Self-Regulation Skills Continues to Be a Key Priority for Supporting Children During Their First Five Years

In all four readiness studies conducted to date in Alameda County, the skills in which students in this study had the greatest needs as they entered kindergarten were *Self-Regulation* skills. These types of skills also posed a dilemma for kindergarten teachers in their instruction – teachers felt these skills were very important for children to have to be school-ready, yet they found themselves spending more time on these skills (along with the basic *Kindergarten Academics* skills) than any others. Even with the significant time they spent on these skills, teachers did not find them to be easy to impact.

Recent local longitudinal research linking school readiness at kindergarten to longer-term (third grade) academic outcomes suggests that early *Self-Regulation* skills may play an important role in later school success as well (ASR, 2010). Specifically, students with a combination of strong skills in both *Kindergarten Academics* and *Self-Regulation* performed better at third grade than

students with lower readiness in these domains – including students who had strong skills only in *Kindergarten Academics*. In short, despite the challenges associated with building *Self-Regulation* skills in children, it is a critical need.

Community Interventions Should Target the Factors that Are Most Strongly Associated with Enhanced Readiness Levels

Across four years of analyses looking at the significant predictors of enhanced student readiness, results have been quite consistent. They suggest several opportunities for promising community interventions to raise the readiness levels of Alameda County students, including:

- Providing support for families to ensure children’s basic needs are met, that parents are mentally healthy and have strong parenting skills, and that pregnant women have high-quality prenatal care.
- Screening children early for developmental concerns and special needs.
- Promoting high-quality preschool experiences.
- Providing information to parents to help them develop their children’s readiness

For Children Who Have Not Had a Longer-Term Preschool Experience, F5AC’s Summer Pre-K Program is Strongly Recommended

Analyses examining the association between Summer Pre-K (SPK) program participation and changes in parents’ knowledge and behavior as well as the students’ readiness levels at kindergarten entry revealed promising results in both types of outcomes. With such promising findings, F5AC should to continue to find ways to offer these SPK classes, particularly for populations that have lower-than-average rates of preschool attendance and readiness levels, such as African American, Hispanic/Latino, English Learner, and very low-income students.