

# School Readiness in Alameda County 2010

## Results of the Fall 2010 Assessment

### EXECUTIVE SUMMARY



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# Snapshot of the 2010 School Readiness Assessment

## Background

In 2010, First 5 Alameda County (F5AC) commissioned an assessment of the school readiness levels of new kindergarten students for the third consecutive year. Participating districts in the 2010 assessment included Berkeley, Castro Valley, Emery, Hayward, Livermore Valley Joint, Oakland, Pleasanton, 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"> <li>• <b>Overall readiness score: 3.29 (on a four-point scale of readiness skill proficiency)</b></li> <li>• For each individual readiness skill, children were scored on a scale from <i>Not yet (1)</i> to <i>Proficient (4)</i>. Scores were highest in the <i>Self-Care &amp; Motor Skills</i> area (3.52) and lowest for <i>Self-Regulation</i> (3.20).</li> <li>• Though most students were meeting or exceeding the levels of proficiency their teachers felt they needed to have at kindergarten entry, 23% of students fell far below their teachers' expectations in the area of <i>Self-Regulation</i>.</li> </ul>
2. What factors are associated with higher levels of school readiness?	<ul style="list-style-type: none"> <li>• Findings revealed that <b>child well-being</b> (not being hungry, tired, or ill) was the strongest predictor of readiness.</li> <li>• In addition to <b>demographic factors</b> that were related to readiness (e.g. age, gender, etc.), children who were <b>not born with a low birth weight</b> were more ready for school.</li> <li>• When children had attended <b>preschool</b> they also tended to have better readiness outcomes.</li> <li>• Families who received specific <b>information about how ready their child was for school</b> prior to kindergarten and/or who reported more <b>positive attitudes toward parenting</b> had children who were more ready.</li> </ul>
3. What is the relationship between F5AC programs and children's school readiness?	<ul style="list-style-type: none"> <li>• After controlling for demographic and SES differences, results revealed that <b>F5AC Summer Pre-K</b> students were more ready for school than children with no preschool experience in all areas except <i>Kindergarten Academics</i>, in which there was a trend for enhanced readiness in SPK students that did not reach statistical significance.</li> <li>• Participation in the <b>Intensive Family Support Case Management</b> program was also associated with gains in readiness.</li> </ul>

# Executive Summary

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## 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 2010, F5AC commissioned Applied Survey Research (ASR) to conduct an assessment of the school readiness levels of new kindergarten students for the third consecutive year. The 2010 assessment took place in eight 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 2010 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 programs and children's school readiness?

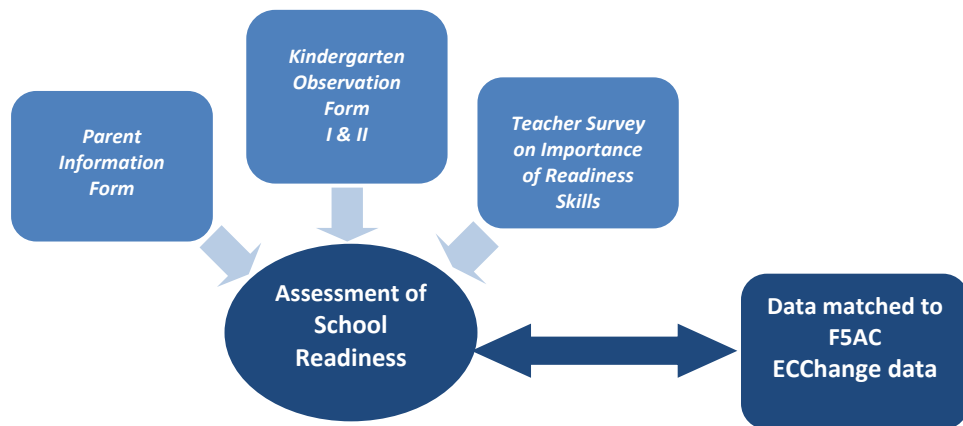
## Overview of the Assessment

Ten 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 2010, nearly 1,400 families consented to have their children take part in the study (consent rate = 76%).

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 very high – 91% of consenting families returned a completed form. In addition, all participating teachers reported their viewpoints on and priorities for readiness via a *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 *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 2010:

- Hispanic/Latino students made up the largest share of the sampled students, but there was no race/ethnicity that comprised a majority of the sample.
- Forty-five percent of the students were English Learners.
- Thirty-six percent of students spoke Spanish as their primary language, and four percent spoke Chinese. Small percentages spoke Filipino/Tagalog, Vietnamese, Farsi or Dari, Punjabi or Hindi, or another language as their primary language.
- Thirty-eight percent of students had a mother whose highest level of education was high school or less.

- Some families were struggling financially; 48% indicated that their family income was less than \$35,000, 35% were on Medi-Cal, and 11% were receiving insurance through Healthy Families.
- Eight percent of students had been born to a teen mother; 22% were from a single parent household, and one in four 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
<b>Ethnicity</b>	
Hispanic/Latino	43%
Caucasian	26%
African American	10%
Asian	8%
Pacific Islander	2%
Alaskan Native or American Indian	0%
Multi-racial	8%
Other	2%
<b>Percent English Learners</b>	<b>45%</b>
<b>Primary language</b>	
English	53%
Spanish	36%
Chinese/Mandarin/Cantonese	4%
Filipino/ Tagalog	2%
Vietnamese	1%
Farsi or Dari	1%
Punjabi or Hindi	1%
Korean	0%
Other language	4%
<b>Mother has no education post high school</b>	<b>38%</b>
<b>Markers of low income</b>	
Family income is less than \$35,000	48%
Receive Medi-Cal	35%
Receive Healthy Families	11%
<b>Child was born to a teen mother</b>	<b>8%</b>
<b>Single parent household</b>	<b>22%</b>
<b>Parent lost job in the last year</b>	<b>25%</b>

Source: Kindergarten Observation Form (2010).

Note: Percentages may not sum to 100% due to rounding. Sample sizes range from 1,167-1,379.

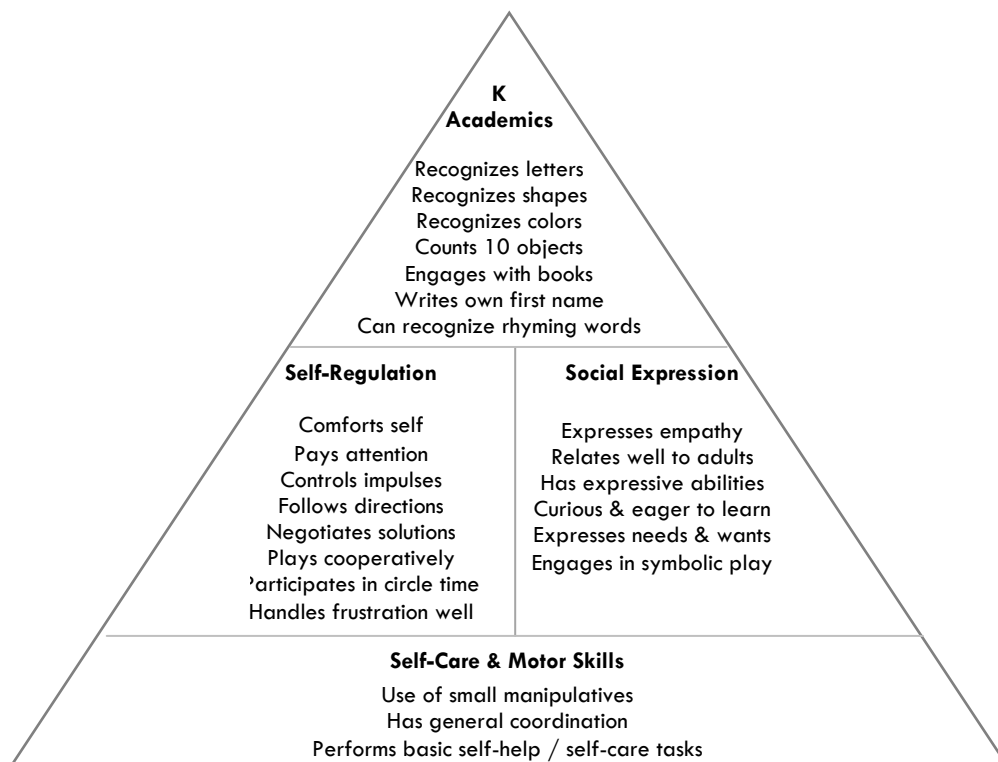
## How Ready for School Are the Sampled Kindergarten Students?

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*

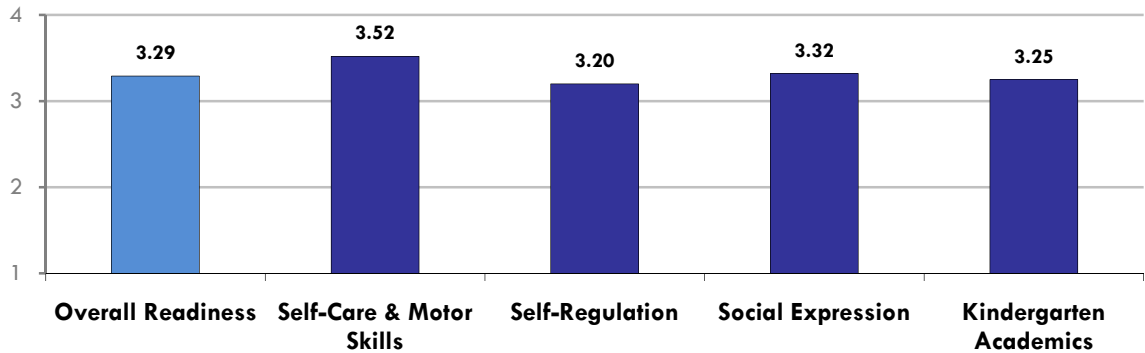
Figure C shows the 24 individual skills on which students were assessed, as well as how the skills sort into the four *Basic Building Blocks*.

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 = 3.52 out of 4 possible) and to have the greatest room to grow in their *Self-Regulation* skills (average score = 3.20). Across all the readiness skills measured, students' average skill level was 3.29 – well above the “In progress” level.

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

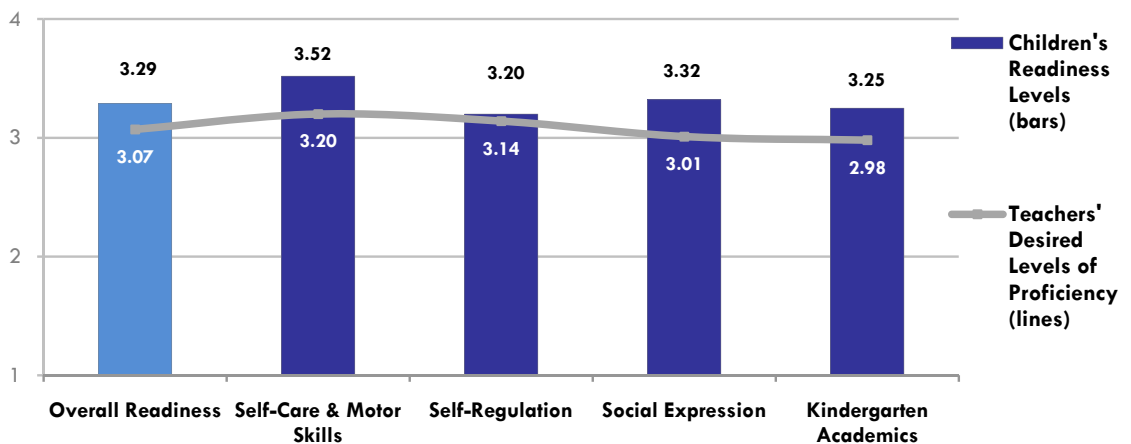


Source: Kindergarten Observation Form I (2010).

Note: Scores are based on 1,383-1,389 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 2010 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. The smallest margin between students' scores and teachers' expectations occurred for *Self-Regulation* skills; in this domain, students' average skill levels were only slightly higher than what their teachers believed they should be for a successful transition to kindergarten.

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



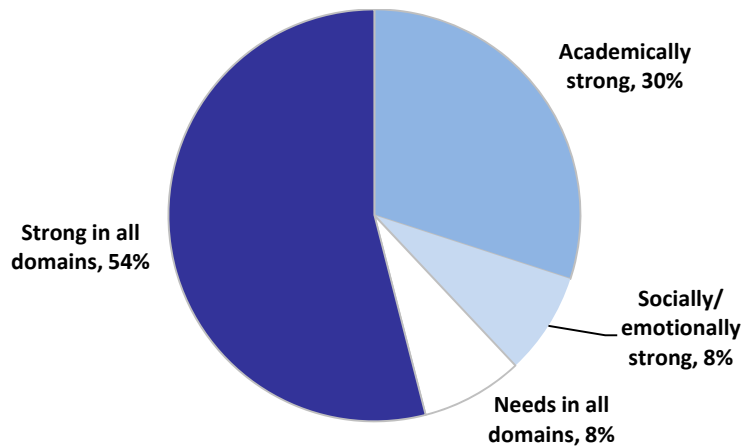
Source: Kindergarten Observation Form I (2010) ; Teacher Survey of the Importance of Readiness Skills (2010).

Note: Scores are based on 1,383-1,389 students and 79 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.<sup>1</sup>

- More than half (54%) 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.
- Eight 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* (8% 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, nearly one third of students (30%) 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 (2010).

Note: This chart is based on 1,379 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*.

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



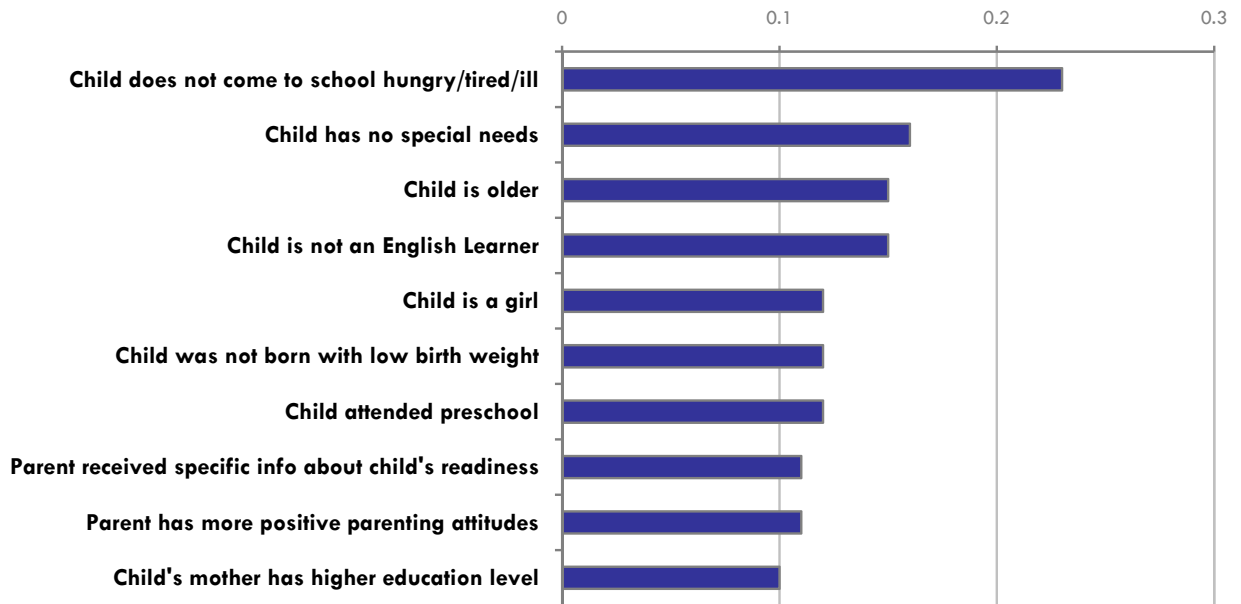
### What Family Factors and Child Characteristics Are Associated with Higher Levels of School Readiness?

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. In addition, students who had no special needs, were older, were not English Learners, were girls, were not born with a low birth weight, and came from families with higher education levels entered school more ready than their peers without these characteristics.

Some significant predictors of readiness suggest fruitful avenues for future community intervention. Preschool experience was associated with enhanced readiness (although analyses suggest this may not extend to *Self-Regulation* development in this sample), as was having a parent who received specific information about how ready their child was for school. Children of parents who had more positive parenting attitudes were also more ready for school, although analyses looking more specifically at each readiness domain revealed that this association was found only in the social and emotional readiness domains.

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



Source: Kindergarten Observation Form I and Parent Information Form (2010).

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 of full report. The overall regression model was significant,  $F = 21.46$ ,  $p < .001$ , explaining 33% of the variance in kindergarten readiness ( $R^2 = .34$ ; Adj.  $R^2 = .33$ ).

### What Is the Relationship between Participation in F5AC Programs and Children’s School Readiness?

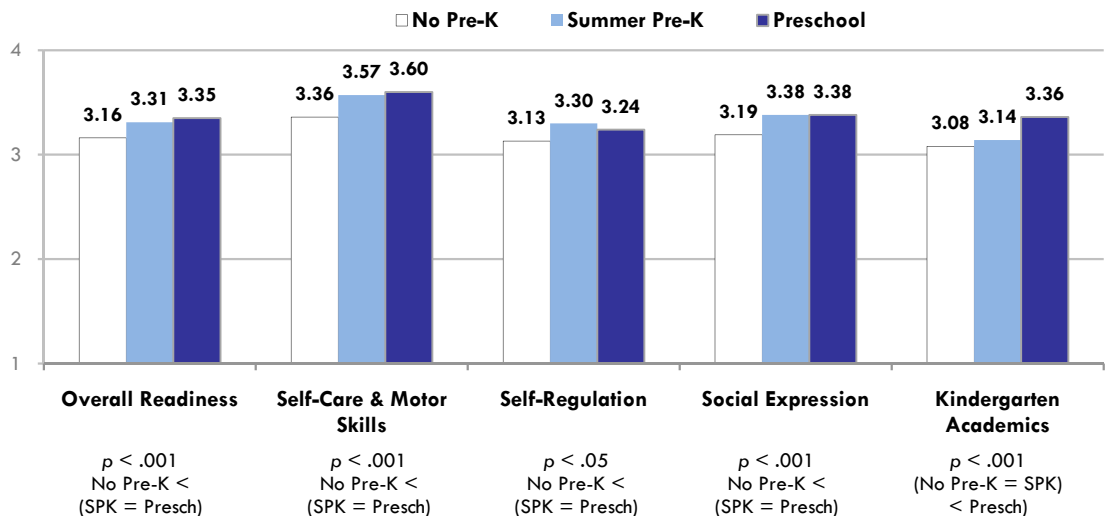
Comparisons of those who had and had not received F5AC services showed that F5AC recipients were a particularly high-need group. Compared to non-recipients, those who received F5AC services were more likely to have been from families that included teen mothers and single parents, had lower incomes and education levels, engaged in fewer family activities, used less community resources such as parks and libraries, and felt they had less social support for their parenting needs.

Analyses comparing F5AC program recipients and non-recipients did not reveal readiness benefits associated with participation in some programs, including Post-Partum Visits, Pediatric Development Screening Support, and Preschool with Mental Health Consultation. However, students whose families received services through Intensive Family Support Case Management had marginally higher levels of readiness than non-participants, particularly in the areas of *Self-Regulation* and *Social Expression*.

Promising readiness trends were found for the Summer Pre-Kindergarten program as well. The readiness levels of three groups of students were compared: (1) those who had no preschool or pre-k educational experience; (2) those who had F5AC SPK experience; and (3) those who had attended a licensed preschool or child care center (e.g., Head Start, State Preschool or private program). After controlling for differences among the students, results revealed that:

- Summer Pre-K students were more ready for school than children with no preschool experience in all areas except *Kindergarten Academics*, in which there was a trend for enhanced readiness in SPK students that did not reach statistical significance.
- The adjusted readiness scores of the SPK students were similar to those of students with a full preschool experience in all domains but *Kindergarten Academics*. In this skill area, preschool students maintained a significant advantage.

Figure H. Students’ Readiness as a Function of Pre-K Experience – Adjusted Means



Source: Kindergarten Observation Form I (2010).

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 based on 422-425 “No Pre-K” students, 86-87 “Summer Pre-K” students, and 789-791 “Preschool” students. Differences in mean scores are indicated above, according to analyses of covariance, with control variables noted in regression section, as well as basic demographic and SES variables: Maternal education, income, sex, age, and EL status. Post-hoc tests revealed marginal or significant group differences as indicated above.

## Implications

Data from this year's readiness study – as well as the broader set of findings from three years of readiness measurement in Alameda County – suggest several possible directions for community action as well as some strong trends across three years of data collection.

### Conclusions and Recommendations from the 2010 Findings

**Development of *Self-Regulation* skills should be an ongoing priority for supporting children during their first five years.** Given consistent findings about needs in the domain of *Self-Regulation* skills, emphasis should be placed on creating environments in the home and in early education that promote children's development of skills relating to impulse control and regulating their emotions and behavior. Some research-based strategies for fostering self-regulation include: encouraging parent engagement and warm/responsive parenting practices; facilitating many opportunities for pretend play during which children tend to explore feelings and practice social/behavioral norms; using children's books as a way to discuss different ways of handling emotions; and giving children frequent opportunities to make choices/think ahead/plan activities/consider solutions to social problems during their daily lives (Berk, Mann, & Ogan, 2006; Boyd, Barnett, Bodrova, Leong, & Gomby, 2005; Greengrass, 2010).

**Community interventions should target the factors that are most strongly associated with enhanced readiness levels.** The results of the regression analyses examining significant readiness predictors suggest several opportunities for potentially impactful community interventions, including:

- *Promoting high-quality preschool experiences:* Although many children had attended preschool in this study, a significant number had not. Districts and community partners should continue to look for new opportunities to provide students with high-quality preschool experiences and to target children and families who are currently unrepresented among the ranks of preschoolers.
- *Providing information to parents to help them work on their children's readiness:* Children whose parents had engaged in more transition activities (e.g., visiting the elementary school with the child prior to the start of school, working on school skills at home, attending parent meetings and orientations, etc.) were more likely to enter kindergarten *Strong in all Domains* of readiness. In addition, the more families engaged with children to read together, play games, do chores together, etc., the more likely their children were to be prepared across readiness domains. Local interventions can use these findings to help let families learn about the many small ways that they can and do help prepare their children for school every day.
- *Providing support for families to ensure basic needs are met and that parents are supported in creating a home environment that helps their child thrive:* Child health and well-being was the greatest predictor of readiness in this study. Families need support to ensure that children's basic needs for adequate food, sleep, and good health are always met. In this project, when parents felt more supported in their parenting roles and had more positive attitudes about parenting, their children tended to have better readiness outcomes. First 5 Alameda County program recipients appeared to be a

particularly high-need population. Program participants had more life stressors and less parenting support than non-participants. These families were also less likely to be using community resources or to be engaging in family activities or transition activities. Knowledge of these needs can help F5AC target and renew efforts to support and educate families in these areas.

- *Enhance communication between ECE and elementary settings to support families and address local readiness needs:* Opening lines of communication between preschool and kindergarten teachers and other education professionals may be one effective strategy for enhancing support to families and addressing local needs around school readiness. The Kindergarten/Early Care and Education (K/ECE) Collaborative model in Alameda County provides an example of one such forum. The K/ECE program model is described in more depth in Part 8 of the comprehensive report.

**For children without a longer-term preschool experience, F5AC’s Summer Pre-K program is strongly recommended.** In addition to the improved readiness outcomes that were identified among children whose families participated in F5AC’s Intensive Family Support Case Management, significant gains in readiness were found for children who participated in F5AC’s Summer Pre-Kindergarten (SPK) program. Students who attend the short-term summer program offered by F5AC begin school with stronger readiness levels than children who have no pre-k experience.

### Three Years of Readiness Assessment in Alameda County: What Have We Learned?

**Self-Regulation skills are challenging for teachers and students alike.** In three years of assessments, across different districts and county regions and with different profiles of participating kindergarteners, teachers have consistently noted that skills related to *Self-Regulation* are very important for a successful kindergarten entry, yet they find these skills to be both difficult to change and quite time-consuming to address in their classrooms. Yet, along with *Kindergarten Academics* skills (which teachers see as being least important to have at kindergarten entry) these are the skills in which children are consistently the least proficient when they start school.

**Children’s basic well-being plays a major role in readiness.** In 2008, 2009, and 2010, children’s well-being (not being tired, hungry, or ill) was the strongest predictor of their readiness levels – including overall readiness and each one of the four *Basic Building Blocks*. Importantly, this measure is not a proxy for poverty. Students from every income level were included among the group of students with concerns. Preliminary trends over the past two years of readiness data suggest that children who have these well-being concerns appear to come from families that have some markers of difficult family stressors.

**Preschool and F5AC Summer Pre-K are both strongly associated with higher readiness levels (but they arrive at those levels differently).** Examinations of which skills tend to be most associated with these experiences reveal some different trends for the two types of pre-k experiences. Preschool may have its biggest impact in teaching *Kindergarten Academics*, whereas its associations with other readiness domains – particularly *Self-Regulation* – are more tenuous. For the F5AC SPK program, data across three years suggest the opposite trend; these students tend to be more ready for school relative to non-preschooled peers due to gains in social and emotional domains, more than in *Kindergarten Academics*.