# SCHOOL READINESS in Alameda County

## RESULTS OF THE FALL 2011 ASSESSMENT

## Comprehensive Report

RESEARCH STUDY FUNDED BY:

Thomas J. Long FOUNDATION

FIRST 5 ALAMEDA COUNTY child

ASR

May 25, 2012

# Acknowledgements

Applied Survey Research (ASR) would like to acknowledge the following individuals for their support and assistance in the planning and implementation of the 2011 school readiness assessment in Alameda County:

- The Thomas J. Long Foundation, Funder
- From Castro Valley Unified School District:
  - Leslie Anderson, Assistant Superintendent of Instruction Services, Castro Valley Unified School District
- From Fremont Unified School District
  - Beverly Taube, Categorical Programs Manager
- From Livermore Valley Joint Unified School District
  - Thelma Fones, ELD/Bilingual Program Specialist
- From Hayward Unified School District
  - Randy Nakamura Coordinator, Prevention & Intervention Student & Family Support Services
- From New Haven Unified School District
  - Debi Knoth, Principal, Searles Elementary School.
  - Geri Isaacson, Director of Instructional Support.
  - Danielle Aroner, Assistant Principal
  - Donna Lindsay, English Language/Intervention Coordinator
- From Oakland Unified School District
  - John Santoro, Director of Early Childhood Education
- From Pleasanton Unified School District
  - Jane Golden, Director of Curriculum and Special Projects.
  - Becky Hopkins, Recreation Supervisor, City of Pleasanton
- From San Leandro Unified School District
  - Robin Michel, Communications Outreach
  - Debbie Wong, Assistant Superintendent, Educational Services
- From San Lorenzo Unified School District
  - Julianne Martyn, School Readiness and Transition Coordinator
  - Barbara DeBarger, Director, Elementary Education

ASR would like to specially thank First 5 staff members who helped with designing, implementing, and offering valuable feedback on the 2011 Alameda County school readiness assessment project, including Melissa Luc, Chris Hwang, Jessica Straubel, Erin Hill Freschi, and Janis Burger.

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

**Participating Alameda County Districts, Schools, and Teachers**

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| Castro Valley Unified School District | Chabot | Bridgette Emanuele |
| | Marshall | Lawren Allphin |
| | Castro Valley | Paula Merrigan |
| Fremont Unified School District | Brier | Krista Claasen |
| | Cabrillo | Christine Moore |
| | | Zareena Javeed |
| | | Sharma Mala |
| | E.M. Grimmer | Nishone Weymouth |
| | | Maria Romo |
| | John Blacow | Theresa Tolbertson |
| | | Mary Reyna |
| Hayward Unified School District | Burbank | Sandra Baerwald |
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| | Fairview | Cecilia McKenna |
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| | | Rita Khoury |
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| | | Melanie Holsopple |
| | Arroyo Seco | Sally Gerlt |
| New Haven Unified School District | Searles | Stella Alamillo |
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| | Markham | Patricia Nunley |
| | Esperanza | Pablo Melendi |
| | | Dolores Beleche |
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| Pleasanton Unified School District | Alisal | Melinda Firpo |
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| San Lorenzo Unified School District | Corvallis | Kirsten Hynds |
| | | Margaret Penaranda |
| | Grant | Julie Henderson |
| | | Kathy Hutchinson |
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| | Hillside | Cheryl Mosler |
| | | Nicole Martin |
| | | Molly Moyer |
| | | Ann Villegas |
| | Bay | Noelle Sanhueza |
| | | Geraldine Whitemore |
| | | Theresa Lewis |
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| | Lorenzo Manor | Kathy Rolefson |
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| San Leandro Unified School District | Thomas Jefferson | Qenise Williams-West |
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| | | Stacy Smitter |
| | James Madison | Eda Lee |
| | | Samara Druckenbrod |

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# 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? | • **Overall readiness score: 3.26 (on a four-point scale of readiness skill proficiency)**<br>• For each individual readiness skill, children were scored on a scale from *Not yet* (1) to *Proficient* (4). Scores were highest in the *Self-Care & Motor Skills* area (3.45) and lowest for *Self-Regulation* (3.18).<br>• 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 *Self-Regulation*. |
| 2. What factors are associated with higher levels of school readiness? | • Findings revealed that **child well-being** (not being hungry, tired, or ill) was the strongest predictor of readiness.<br>• 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.<br>• When children had attended **preschool** they also tended to have better readiness outcomes. These were focused in *Kindergarten Academics* and *Self-Care & Motor Skills*, but were not observed in social-emotional readiness domains.<br>• 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? | • 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.<br>• 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 *Kindergarten Academics*. |

# 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?

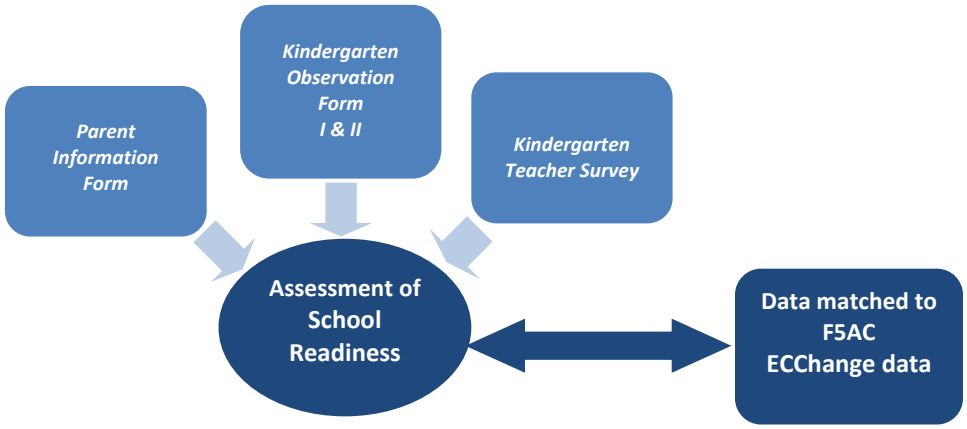
## Overview of the Assessment

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.

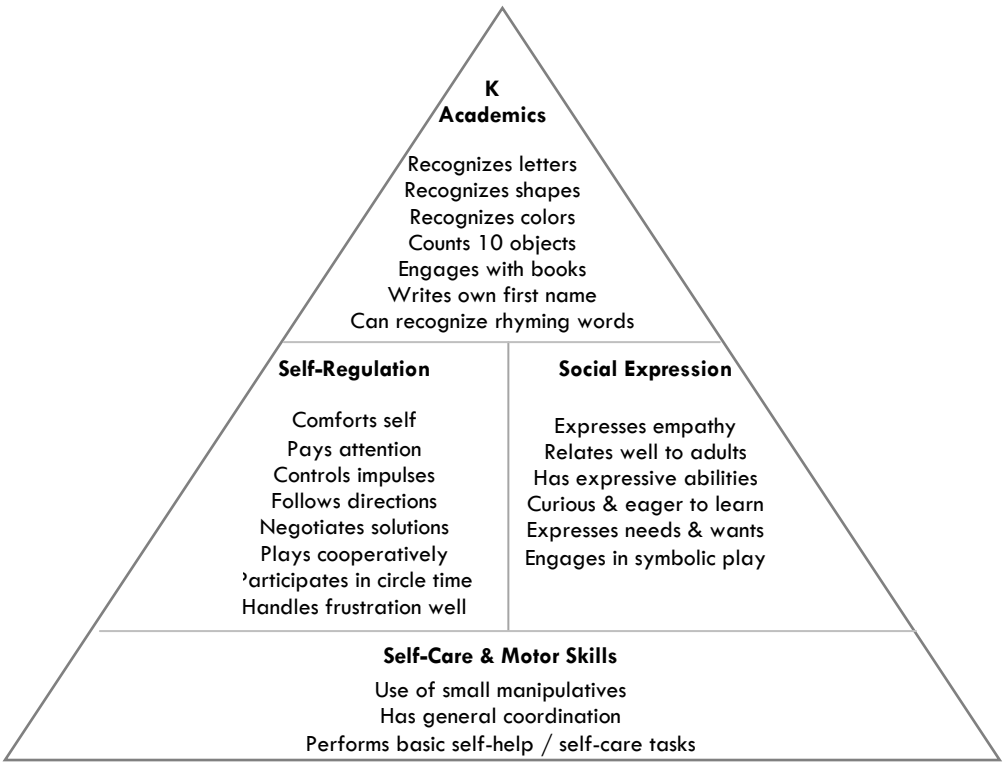
## How Ready for School Are the Sampled Kindergarten Students?

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*

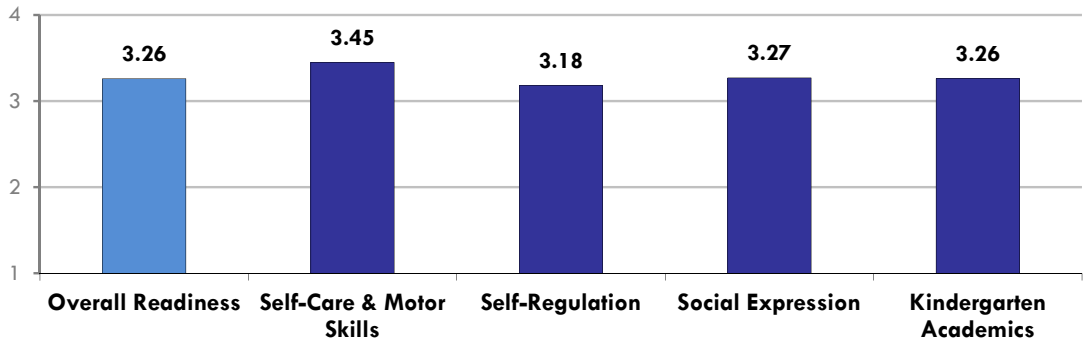
Figure C shows the 24 individual skills on which students were assessed, as well as how the skills sort into the four *Basic Building Blocks*.

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**

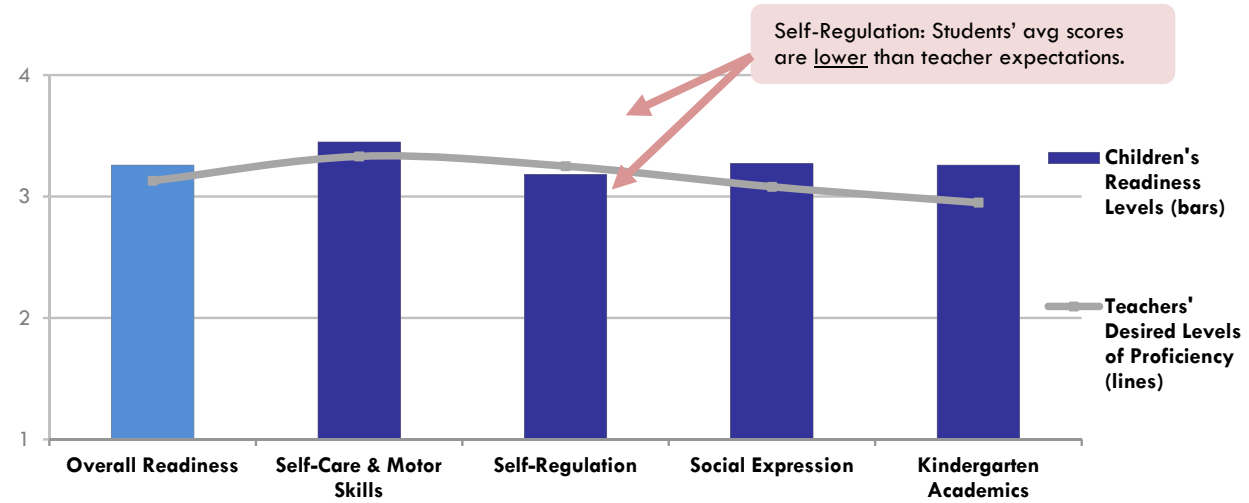



Source: Kindergarten Observation Form I (2011).

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**



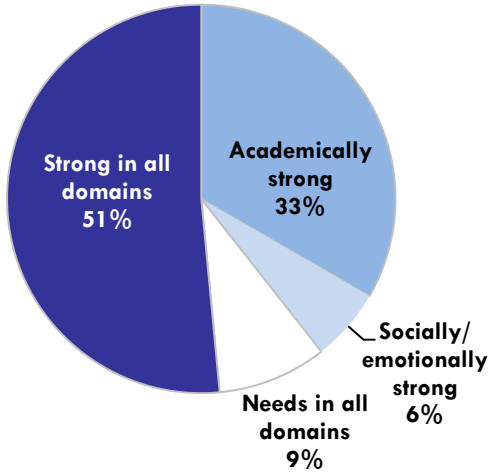

Source: Kindergarten Observation Form I (2011) and Teacher Survey of the Importance of Readiness Skills (2011).

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?

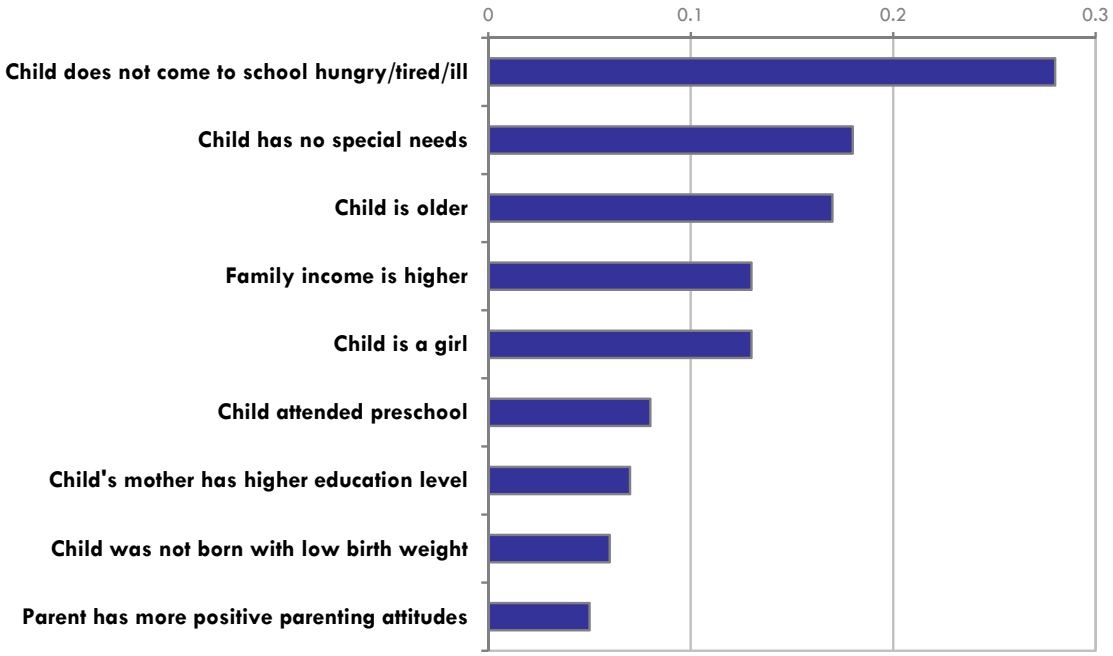
A set of analyses was conducted to examine what factors were associated with greater school readiness. These analyses take into account all important measured variables simultaneously, so that the relationship between readiness and particular family, student, and school-level factors could be examined 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. $R^2 = .32$).

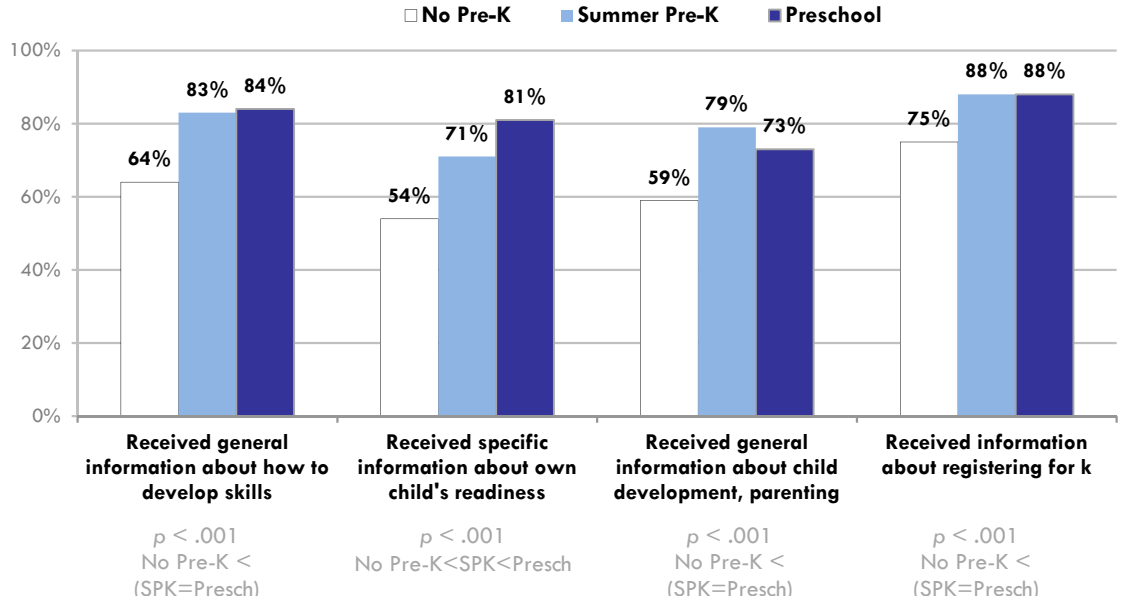
### What is the relationship between participation in F5AC's Summer Pre-K Program and key readiness-related parent and child outcomes?

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**

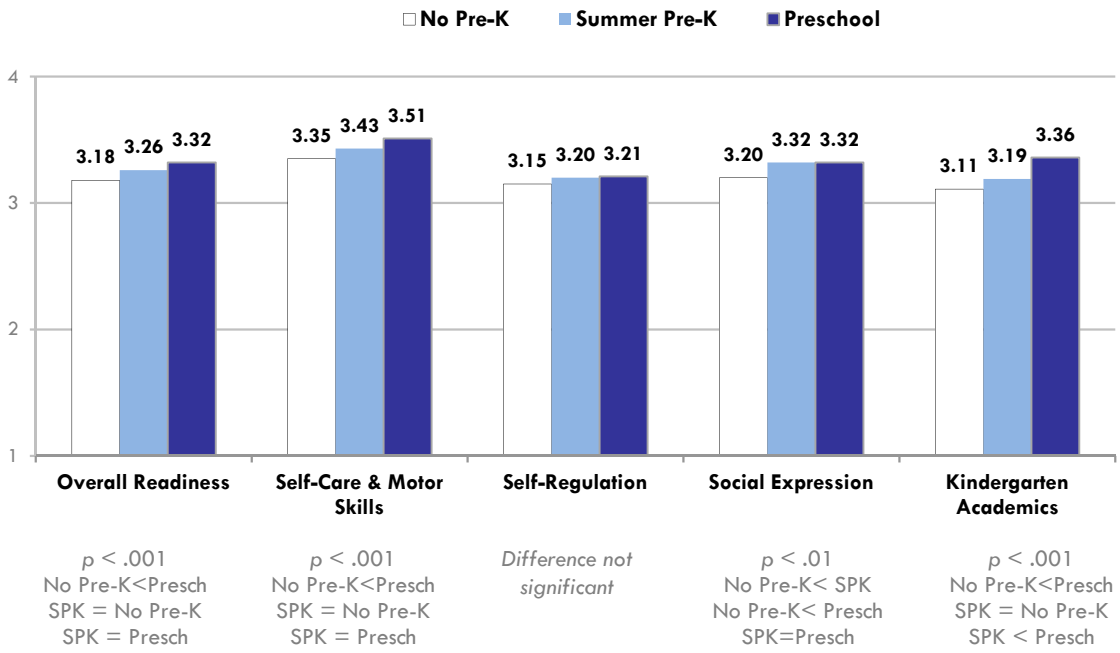



Source: Parent Information Form (2011).

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.

# Introduction

## School Readiness: What Is It?

In recent years, the issue of children's readiness for school has received increasing attention from policymakers, professionals, researchers, the media, and caregivers. In one of the early large-scale efforts to establish a common framework for addressing school readiness issues, in 1995 the *National Education Goals Panel* (*NEGP*) defined school readiness as involving three critical components: (1) readiness of children for the social and academic institution of school; (2) readiness of families and communities to prepare children for school; and (3) readiness of schools to meet the diverse needs of incoming students and their families. With respect to the first component – children's readiness for school – the *NEGP* conceptualized five dimensions of development and skills that are critical to a child's readiness for school: *Physical Well-Being & Motor Development, Social & Emotional Development, Approaches Toward Learning, Communication and Language Usage,* and *Cognition & General Knowledge.* In different communities throughout the country, these *NEGP* dimensions of readiness have become the foundation for the development of school readiness measurement tools attempting to quantify children's school readiness.

**NATIONAL EDUCATION GOALS PANEL**
**Definition of School Readiness:**

- **Readiness of children** for the social and academic institution of school
  - Physical Well-Being & Motor Development
  - Social & Emotional Development
  - Approaches Toward Learning
  - Communication & Language Usage
  - Cognition & General Knowledge
- **Readiness of families and communities** to prepare children for school
- **Readiness of schools** to meet the diverse needs of incoming students and their families

In recent years, a great deal of local and national research has been dedicated to studying how ready children are for school when they begin kindergarten, documenting the levels of proficiency that children demonstrate across a broad spectrum of school readiness skills, along with the factors that are associated with greater (or lesser) readiness levels. Currently, a variety of school readiness measurement tools and methods are being used in different regions throughout the country, providing information to various stakeholders in both the early education and K-12 system about children's strengths and needs as they enter kindergarten and begin their school careers.

## Why Does School Readiness Matter?

Why should we study children's readiness for school? A growing body of research has been devoted to answering questions about if and how readiness impacts later school success. A number of studies looking at the relationship between readiness and later achievement have demonstrated that children's social and cognitive readiness for school acts as a "springboard" for later success in school. The five dimensions of readiness defined by the *NEGP* have all been found to contribute to a child's success in school (Kagan, Moore, & Bredekamp, 1995). In particular, children who have competence across these five dimensions are more likely to succeed academically in first grade than are those who are competent in only one or two

dimensions (Hair, Halle, Terry-Humen, & Calkins, 2003). A number of other studies have also found linkages between early school readiness and later success in school. For example:

- Mastery of basic numerical concepts prepares children to learn more complex math problems and problem-solving approaches (e.g., Baroody, 2003).

- Number competency skills at kindergarten entry predicts both growth rates between first and third grade math and math performance level in third grade achievement (Jordan, Kaplan, Ramineni, & Locuniak, 2009).

- Children who have difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress tend to do less well in school (e.g., Raver & Knitzer, 2002; Raver, 2003).

- The ability to control and sustain attention and participate in classroom activities is associated with achievement test scores in the early elementary grades (e.g., Alexander, Entwisle, & Dauber, 1993).

- *Approaches to Learning* at kindergarten entry, which includes constructs such as persistence, emotion regulation, and attentiveness, was found to predict reading and math performance up through fifth grade (Li-Grining, Votruba-Drzal, & Maldonado-Carreno, & Haas, 2010).

- Students who performed less well on standardized tests in second and third grades also trailed on both cognitive and socioemotional readiness measures early in their kindergarten year (Cannon & Karoly, 2007).

- Both academic and nonacademic school readiness skills at entry to kindergarten were found to be significantly related to eventual reading and mathematics achievement in fifth grade (Le, Kirby, Barney, Setodji, & Gershwin, 2006).

Perhaps one of the most comprehensive examinations of the impact of school readiness comes from a meta-analysis of six longitudinal, non-experimental data sets exploring the connections between readiness and later achievement. These researchers found that the strongest predictors of later achievement were school-entry math, reading, and attention skills (in that order). To the authors' surprise, however, some measures of socio-emotional behaviors (internalizing and externalizing problems and social/interpersonal skills) were generally not significant predictors of later academic performance. (Duncan, Claessens, Huston, Pagani, Engel, Sexton, Dowsett, Magnuson, Klebanov, Feinstein, Brooks-Gunn, Duckworth & Japel, 2007).

More recently, the journal *Pediatrics* published an article arguing that early academic preparedness is crucial for outcomes even broader than those in the domain of education. Specifically, with a host of references supporting their position, the authors of this article asserted that "cognitive development and education are arguably fundamental determinants of health" (Fiscella & Kitzman, 2009, p. 1073). They cited as support research showing associations between education and outcomes such as chronic disease rates, disability, engagement in risk behaviors, and later socioeconomic factors that in turn influence health status. From these and other national-levels studies – along with local research conducted with Bay Area students and

described in the following section – there is clear indication that school readiness matters. There is somewhat less agreement on exactly which readiness skills matter most, and how broad and long-lasting their potential impact on the future of young students may be.

## History of the Bay Area School Readiness Assessments

### Development of a Local School Readiness Measure

In 2000, stakeholders in San Mateo County helped to develop and implement the first large-scale kindergarten school readiness assessment in the Bay Area. Applied Survey Research (ASR) was contracted to develop the research materials and protocol and conduct the assessment. ASR launched a comprehensive process to arrive at a set of tools that had local relevance as well as a foundation in the wider body of early education and K-12 literature.

With input from a variety of subject matter experts – including community stakeholders, child development and education experts, preschool teachers, and kindergarten teachers – ASR developed and pilot-tested a 19-item *Kindergarten Observation Form* (KOF) to measure children's school readiness skills. After this pilot test, modifications were made to refine the tool, education experts again weighed in, and a more advanced skill representing phonemic awareness was added (i.e., recognition of rhyming words), resulting in a 20-item tool in which skills were organized according to the five *NEGP*-designated categories of school readiness.

Since that initial assessment, school readiness assessments have been conducted in San Mateo County (2002, 2003, 2005, 2008), Santa Clara County (2004, 2005, 2006, 2008), Lake County, Illinois (2005, 2006), San Francisco County, (2007, 2009), Santa Cruz County (2008), in Los Angeles Unified Preschool (2008, 2009), in Marin County (2010, 2011), in Del Norte County (2011), and in Alameda County (2008, 2009, and now 2010). During this time, the ASR School Readiness Assessment Model's tools and methods have been continually refined and enhanced. For example, in 2004, a *Parent Information Form* was added to measure family factors that may play a role in enhancing readiness, and four additional skills have been added to the *Kindergarten Observation Form* to measure social-emotional dimensions of readiness that had not been previously captured.

### Shifting from *NEGP* to the *Basic Building Blocks* of Readiness

For several years, the set of skills measured by the *KOF* was organized and reported according to the five categories established by the *NEGP*, as described above. In 2005, ASR took another look at the readiness data to determine whether the pattern of results observed in the data supported the NEGP categories as most appropriate "sorting" of the readiness skills. Using an approach called factor analysis, ASR examined the readiness data that had been collected that year to see if the observed patterns of children's skill proficiency sorted according to *NEGP* categories, or if perhaps the pattern suggested a different set of readiness categories.

Results of the factor analysis showed that the readiness skills actually tended to group into four primary dimensions of readiness that differed from the *NEGP* categories. Those four dimensions were labeled the *Basic Building Blocks* of readiness, and each contained between three and seven items. They are described as follows:

- *Self-Care & Motor Skills* include those skills needed for taking care of one's basic needs or skills showing fine/gross motor coordination.

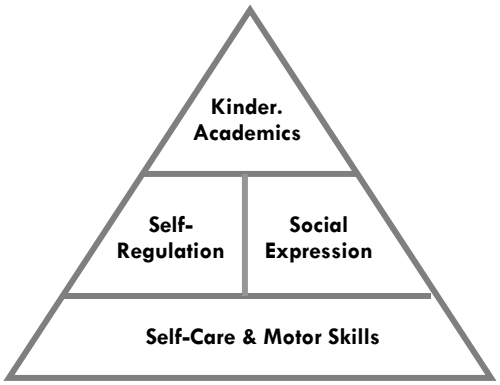
- *Self-Regulation* skills include basic emotion regulation and self-control skills that are needed to be able to perform well in the classroom.

- *Social Expression* skills include measures related to interacting with others and engagement with play and learning.

- *Kindergarten Academics* skills represent the "nuts and bolts" skills that are more academic in nature and tend to be explicitly taught to children at home, in early care settings, and in kindergarten.

Each readiness assessment ASR has conducted since 2005 has supported these four basic components of readiness – even with the addition of four new readiness skills since the original factor analysis was conducted. Feedback from teachers and early education experts and stakeholders has indicated that these categories have intuitive appeal as well – people quickly understand what is meant by these four skill groups, and they see children's skills sorting along these lines. Thus, in line with this compelling support for the *Basic Building Blocks* of readiness, recent school readiness assessments (including the current report) have focused on this sorting of the skills. [2]

Figure 1. **Basic Building Blocks of Readiness**




## Local Longitudinal Readiness Research with the *KOF*

In 2010, ASR followed up a preliminary, small-scale study (ASR, 2008) of long-term associations between readiness (as measured on the *KOF*) and later academic outcomes (third grade California Standards Test [CST] scores), using a large sample of kindergarten students from 2004 and 2005 in Santa Clara and San Mateo counties (ASR, 2010). The results of this study were consistent with the findings of the national research literature and supported the KOF as a

[2] The report section "School Readiness in Alameda County – 2011" includes more information on the "crosswalking" of *Kindergarten Observation Form* skill items from the *NEGP* categories to the *Basic Building Blocks*.

readiness measurement tool with the capacity to strongly predict academic outcomes three and a half years after children are assessed on it.

In short, this study found that the *Kindergarten Academics* and *Self-Regulation* skills that students possessed at the start of school strongly predicted their performance on English-Language Arts (ELA) and Mathematics CSTs three and a half years later. Results showed that students who had a combination of strong skills in both *Kindergarten Academics* and *Self-Regulation* were particularly likely to perform well on their third grade tests. Students who began school with strong skills in both of these were almost three times more likely to be "Proficient" or "Advanced" on their English-Language Arts CSTs than students who had poor skills in these areas, and they were almost twice as likely to be "Proficient" or "Advanced" on their Math CSTs.

## Assessing School Readiness in Alameda County

In Alameda County, the first measurement of kindergarten readiness using the KOF began in Fall 2008, when F5AC contracted with ASR to conduct a pilot readiness assessment in three county school districts. These districts were of particular interest to F5AC because they included a relatively high proportion of schools with low Academic Performance Index (API) scores (i.e., schools with a statewide rank of 1, 2, or 3), and a number of F5AC programs and services had been targeted to families in these regions. Indeed, data gathered from that assessment showed that many of the students in the study came from low-income, at-risk family backgrounds. Some children had extensive pre-k educational experiences, but many did not. And, as a whole, the students were an incredibly diverse group in terms of their ethnic and linguistic backgrounds.

Assessments were again conducted in 2009, 2010, and 2011, with additional schools and districts taking part in each subsequent study.[3] Participants in the 2011 assessment – described in the report sections that follow – included students from nine districts: Castro Valley, Fremont, Hayward, Livermore Joint, New Haven, Oakland, Pleasanton, San Lorenzo, and San Leandro Unified School Districts. Consistent with prior readiness studies, the key research questions examined in this year's study include the following:

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

Answers to these questions – as well as detailed information on the children, families, teachers, and classrooms that make up the sample targeted for this study – are described in detail in the following sections of this report.

[3] For a comprehensive description of the 2011 School Readiness Assessment method and results, please see the forthcoming report "School Readiness in Alameda County: Results of the Fall 2011 Assessment."

# Methodology

## Section Overview

In this section, the four data collection instruments that comprise the ASR School Readiness Assessment Model are described. Next, the procedures for implementing the Fall 2011 study are explained, including recruitment and training of teachers and data collection processes and timelines. The study completion metrics are provided, and information is included on the preparation, analysis, and interpretation of the data described in this report.

## Data Collection Instruments and Administration

Four key instruments were used in this assessment. Three forms were completed by teachers: *Kindergarten Observation Form I*, *Kindergarten Observation Form II* and *Teacher Survey on Importance of Readiness Skills*. Parents provided information about their child and family circumstances on the *Parent Information Form*. The figure that follows provides a summary of each of the tool names, their content, and who completed each one.

Figure 2. **Overview of Data Collection Instruments**

| Instrument | What Key Data Are Assessed? | Who Completes It? |
|---|---|---|
| Kindergarten Observation Form I (KOF I) | 24 school readiness skills of children in selected classrooms | Participating kindergarten teachers. Includes teachers from the following districts: Castro Valley Unified, Fremont Unified, Hayward Unified, Livermore Valley Joint Unified, New Haven Unified, Oakland Unified, Pleasanton Unified, San Leandro Unified, and San Lorenzo Unified |
| Kindergarten Observation Form II (KOF II) | Enjoyment of school, quality of the school transition, participation and anxiety at school of children in selected classrooms | Participating kindergarten teachers |
| Parent Information Form (PIF) | Pre-K childcare; kindergarten transition activities; activities and routines in the home; parental supports, attitudes, and stressors; demographic and SES variables | Consenting parents of children in the assessment |
| Teacher Survey on Importance of Readiness Skills | Expected levels of children's proficiency on skills required for successful transition to kindergarten | Participating kindergarten teachers |

### Kindergarten Observation Form I (KOF I)

The *Kindergarten Observation Form* was originally developed in 2001 using guidelines from the *National Education Goals Panel* (*NEGP*) framework of readiness. Readiness items reflected a range of skills, from minimum competencies, such as *Performs basic self-help/self-care tasks*, to higher-level competencies that help provide a baseline for teachers at the beginning of the year, such as *Recognizes rhyming words*. In 2006 and 2007, four additional readiness skills were added to the core 20 items in order to better capture children's skills at negotiation, coping,

empathy, and handling frustration. Currently, the *Kindergarten Observation Form I* assesses children across 24 readiness skills (See Appendix 1).

The *Kindergarten Observation Form I* uses teacher observation as the method of assessment. Given the research setting, this is the most appropriate, valid, and reliable method of assessment for the following reasons:

- Because student behavior can change from day to day, teachers are in a better position than outside observers to assess their students, as teachers can draw on the knowledge gained through four weeks of daily interactions.

- Teacher observation is less obtrusive and less intimidating for students than assessment by outside observers.

- Teachers are entrusted by the school system to be children's "assessors" in other respects, such as grading, and, therefore, it is presumed that they are aware of the need for assessments to be carried out in a fair manner.

The caveat of teacher observations is that there is some risk of natural variability between teacher observers. To minimize variability, the assessment tool includes measurable indicators (items), clear assessment instructions, a clearly defined response scale, a comprehensive scoring guide describing appropriate proficiency levels for each of the 24 readiness skills, and a thorough teacher training (see "Implementation" section for details on the trainings conducted).

Teachers are asked to observe and score each child according to his or her level of proficiency in each skill, using the following response options: *Not Yet* (1), *Beginning* (2), *In Progress* (3), and *Proficient* (4). An option of *Don't Know / Not Observed* is provided as well.

Teachers are able to complete most of the items on the *KOF I* through simple, passive observation of the children in their classrooms. A few items, however, do require one-on-one, teacher-child interaction. Additionally, teachers use passive response rather than on-demand testing techniques on several items in order to reduce anxiety for students during assessments, thereby enhancing the reliability and validity of skill assessment. If teachers feel they cannot provide an accurate assessment on several language-dependent items on the KOF, they are instructed not to assess students on these items and instead check *Don't Know / Not Observed* or leave those items blank.

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

In all investigations conducted to date, the *KOF I* has consistently demonstrated strong validity and reliability, including:

- **Strong construct validity:** Correlations with comparable items on *Kindergarten Progress Report* were > .70 on 15 of the original KOF items, with correlations between .46-.67 on the remaining items. Robust correlations have been observed

with *Work Sampling System* (overall *r* = .76) and *Brigance K – 1 Screen II* (overall *r* = .57; *Kindergarten Academics r* = .74).

- Consistently demonstrated known-groups validity: The KOF consistently discriminates between groups that are known to vary in their readiness levels, including: older versus younger students, students with and without preschool experience, and students with and without special needs.
- High levels of internal consistency: Across KOF administrations, the four readiness factors – *Self-Care & Motor Skills, Self-Regulation, Social Expression,* and *Kindergarten Academics* – have consistently strong Cronbach's alphas.
- Indications of moderate-to-strong inter-rater reliability: Analysis of a recent inter-rater reliability study is in progress – preliminary data suggest moderate-to-strong agreement between paired teacher raters in pre-K settings.
- Predictive validity: Skills that fall into two readiness domains represented on the *KOF* (*Kindergarten Academics* and *Self-Regulation* skills, described more fully in later sections of this report) are strong predictors of performance on third grade Mathematics and English-Language Arts California Standards Tests (ASR, 2010).

### Kindergarten Observation Form II (KOF II)

To gather a clearer picture of children's actual adjustment to the kindergarten classroom, teachers are also asked to complete the *Kindergarten Observation Form II* (see Appendix 2) after all of their *KOF I* assessments have been completed. *KOF II* asks teachers to rate: (1) the smoothness of children's transitions into kindergarten, (2) children's anxiety levels at school, (3) children's participation in class discussion, and (4) children's enjoyment of school. Each rating is made on a four-point scale (e.g. not smooth, somewhat smooth, smooth, very smooth).

### Parent Information Form (PIF)

To better understand how family factors are related to children's levels of readiness, a *Parent Information Form* (see Appendix 3) was first developed in 2004 for completion by parents. The *Parent Information Form* collects a wide variety of information, including: types of child care arrangements for children during the year before kindergarten entry; ways in which families and children prepared for the transition to kindergarten; parent beliefs about their role in education; engagement in family activities and daily routines; use of parenting supports and family resources; parenting social support, attitudes, and stressors; health and health care measures; and several demographic and socioeconomic measures. Care is taken to ensure that the questions could be read at a sixth grade reading level. Versions of the form are offered in English, Spanish, Tagalog, Chinese and Vietnamese. Parents are given a children's book (in their preferred language) as an incentive for their completion of the *PIF*. To enhance their privacy, parents are provided with an envelope in which they seal their completed survey prior to returning them to their child's teacher.

### Kindergarten Teacher Survey

After teachers complete all of their student assessments, they complete the *Kindergarten Teacher Survey* (see Appendix 4). On this survey, teachers rate the level of proficiency that they think students need for each of the 24 *KOF I* skills in order to have a successful transition into kindergarten. Kindergarten teachers are also asked to identify the five readiness skills that they

consider most important for a child to possess in order to be school-ready, the five skills that are easiest to affect during the school year, and the five skills on which they spend the most time. In addition, teachers provide some information about their classroom (i.e., whether they teach full or half-day kindergarten, whether they teach in a language other than English) and their own backgrounds. The survey is designed to take no more than 15 minutes to complete.

## Implementation

### Obtaining Participation Agreement

F5AC contacted district and school administrators in nine school districts – Castro Valley Unified School District, Fremont Unified School District, San Lorenzo Unified School District, New Haven Unified School District, Pleasanton Unified School District, Livermore Valley Joint Unified School District, Oakland Unified School District, Hayward Unified School District, and San Leandro Unified School District – to take part in the fall readiness assessment. Of these nine districts, six (San Lorenzo, Livermore, Oakland, Pleasanton, Hayward, and Castro Valley) had been involved in the Fall 2010 readiness assessment and agreed to continue their participation. The three new districts (San Leandro, Fremont, and New Haven) were also targeted for inclusion because, like the other districts, they are in regions where at least some F5AC programs and services are offered. Attempts were made to secure as many participating schools and teachers as possible within the initial group selected, and efforts were not intended to secure a sample that was generalizable to the district or county level.

School and district administrators were provided with information about the assessment, including its purpose, what participation would involve on the part of the kindergarten teachers, and the timeline for completion of the study tasks.

### Teacher Trainings

ASR prepared the F5AC School Readiness Program Manager to conduct the teacher trainings, which were required for all teachers who volunteered to participate in the study. In 2010, the Program Manager participated in a comprehensive Train-the-Trainer session led by ASR that detailed all steps involved in the training process. After the 2010 training session, the Program Manager conducted one teacher training independently before meeting again with an ASR staff member to debrief about the training process and observe an ASR-led teacher training. After observation of the ASR-led session, the responsibility for the remaining 2010 teacher trainings was transferred over to F5AC. Prior to the commencement of the 2011 teacher trainings, a two-hour “refresh” training was provided by ASR to the Program Manager once again. The full sequence of training steps were reviewed, and the Program Manager was given the opportunity to ask any clarifying questions before scheduling the new trainings with Alameda County teachers.

In late summer to early fall of the 2011 school year, the School Readiness Program Manager conducted in-depth trainings within each school district to orient the participating kindergarten teachers to the data collection forms and process.

As an incentive to encourage teachers to attend the trainings, F5AC gave $20 Lakeshore Learning Materials gift cards to all teachers who attended the orientation session.

Trainings lasted approximately 75 minutes. After hearing a general overview of the project and study purpose, kindergarten teachers were given all project materials, including: (1) written instructions on how to complete the assessment; (2) consent letters for parents that explained the study purpose and asked parents to indicate whether or not their child would participate in the study (English, Spanish, Tagalog, Chinese, and Vietnamese versions were available); (3) *Parent Information Forms* in English, Spanish, Tagalog, Chinese, and Vietnamese; (4) *Kindergarten Observation Forms I* and *II* and the accompanying *Scoring Guide*; (5) *Teacher Survey on Importance of Readiness Skills,* (6) a sheet to track teachers' progress during the assessment (e.g., a record of parental consent, children observed and yet to be observed, *PIF*s returned); (6) a return envelope for teachers to post in their classrooms to facilitate the collection of parental consent forms, and (7) an envelope for the return of study materials to F5AC. All of these materials were reviewed with teachers so that they were familiar with both the teacher-completed instruments and the parent-completed instruments.

The focal point of the training was an item-by-item description of the readiness skill information to be collected via the *Kindergarten Observation Form I*. This section of the training helped ensure that different observers used the *KOF I* in a consistent way. During the review of the 24 readiness skills, particular emphasis was placed on clarifying:

- The importance of using the *Kindergarten Observation Form Scoring Guide*. The Scoring Guide provides a rubric for each readiness skill defining the specific behaviors/skills which constitute "Not yet," "Beginning," "In progress," or "Proficient" levels of proficiency. Consistent use of the scoring rubric ensures that teachers are rating children according to the same criterion for each skill (see Appendix 5 for scoring guide).

- The distinction between assessing the recognition of letters of the alphabet, shapes, colors, and rhyming words (the skills assessed in this project) versus assessing the verbal production of letters, shape names, color names, and rhyming words (skills not assessed in this project). Suggestions were provided as to how to capture recognition information (e.g., "Will you please pass me the green crayon?" and "Please point to the triangle.").

- The need for children to be assessed in their primary languages. Teachers unable to communicate fluently enough with children in their preferred or primary languages were instructed to skip a set of flagged language-dependent items.

- The administration of those items that required teacher-child interaction.

All of the teachers' questions were answered during the training sessions; in addition, teachers were encouraged to contact the School Readiness Program Manager or ASR at any time with comments or questions about the project.

## Obtaining Parent Consent

At the beginning of the school year, teachers distributed the parent consent letters and *Parent Information Forms* (see Appendix 6 for consent forms). Teachers collected parent consent forms and *Parent Information Forms* (*PIFs* were returned in sealed envelopes for privacy). Consent from a parent was required for a student to be able to participate in the study; if a parent did not consent, teachers did not assess the child. If parents did not return a consent form indicating consent or refusal, teachers were asked to make a reasonable effort to get them to

return the form; if parents still did not return a consent form despite these efforts, teachers were instructed to assume that they declined to participate, and thus teachers did not assess those parents' children.

As an incentive to encourage participation by families, F5AC gave every child in each participating classroom a children's book. Teachers completed book order forms to specify the number of books needed in each language spoken by the children in their classrooms. The order form included children's books in English, Spanish, Chinese, Tagalog, Vietnamese, and Korean. In addition to these six languages, teachers could request that children's books be ordered in other languages. F5AC researched all requests and fulfilled the requests whenever possible. On the basis of such requests, books were also provided in Arabic, Farsi, Punjabi, Portuguese, Hebrew, and Gujarati.

## Conducting Student Assessments

Teachers were asked to conduct their student assessments approximately three to five weeks after the start of the school year, drawing upon their knowledge and observations of children during the first few weeks of school. The average length of time that elapsed between the start of school and teachers' observations was 35 days (five weeks) after their classes had started. Completed *Kindergarten Observation Forms I* and *II*, *Parent Information Forms* and *Teacher Surveys on Importance of Readiness Skills* were returned to F5AC, who forwarded materials to ASR. After teacher observers had assessed all of their students and had returned study materials to F5AC, F5AC emailed them a thank you letter and mailed a stipend in appreciation of their participation.

## Completion Metrics

### Schools and Classrooms

Figure 3 presents a summary of the completion metrics for the study participants. Overall, there were 41 participating schools representing nine different school districts in Alameda County. In some schools, just one kindergarten teacher participated in the readiness study; in other schools, two or more teachers took part. In all, students from 88 classrooms were included in the study. For a more complete description of the characteristics of participating teachers and classrooms, please see Appendix 7.

### Parent Consent and Response Rates

Overall, the parental consent rate was 77 percent. Eighty-three percent of parents who agreed to have their child take part also completed and returned a parent survey.

Figure 3. **Completion Metrics – Alameda County School Readiness Assessment**

| Data | Completion metrics |
|---|---|
| Number of participating schools | 41 |
| Number of participating classrooms | 88 |
| Number of children in these classrooms | 2,072 |
| Number of parents consenting | 1,610 |
| Parent consent rate | 77% |
| Number of KOFs completed among consented students | 1,597 |
| Number of PIFs returned that were matched to a KOF | 1,336 |
| Parent PIF response rate (# PIFs received/# consents) | 83% |

## Data Preparation

### Cleaning

Data were entered into the Statistical Package for the Social Sciences (SPSS). Following entry, the data were cleaned, using selected techniques to enhance data integrity. For instance:

- Frequencies were run on all variables to ensure that all responses fell into the appropriate ranges;
- Scores on the readiness items were examined for students with whom teachers indicated they could not communicate. If teachers inappropriately provided ratings for the language-dependent items, those ratings were deleted; and
- Several items on the *Parent Information Form* asked parents to fill in a number (e.g., the number of times they read books each week, the number of times they tell stories or sing songs each week). For these items, outlying values were identified and, when such values would inappropriately skew an average score, the top one percent of the distributions was trimmed.

### Missing Values

Sometimes teachers or parents did not provide answers to specific items. None of these missing values were replaced. If a participant did not have data available for some items, their case was excluded only from those analyses in which their data was missing; their information was included in all other analyses for which they had data available. All composite scores were calculated without including missing items.

### Matching of Assessment Data and F5AC Database Records

One of the key research questions in this assessment involved looking at the association between readiness levels and receipt of F5AC programs and services. To conduct this analysis,

ASR was provided with information from F5AC's databases that allowed for matching of students' data across datasets. Specifically, F5AC provided ASR with a dataset of service recipients that included – only for children who were within the likely age range of the assessment – children's name, date of birth, sex, and mother's first name, along with variables indicating which of five targeted F5AC services they had received. Strong precautions were taken to ensure the security of the data transfer between F5AC and ASR.

Once ASR received these data, matches were sought by looking across the two data sets for matches on date of birth, sex, child initials and mother's first name. Two hundred eighty eight of the 1,597 assessed children (18%) were matched to the F5AC dataset indicating they had received one or more F5AC services. Once the matching process was completed, all child names were deleted from the F5AC data records.

## An Overview of Statistical Analyses Conducted

After data were cleaned, numerous statistical analyses were conducted to answer the research questions, as follows:

- Percentages were calculated and chi-square tests were run to test whether differences in percentages reached statistical significance.

- Average scores were calculated for all continuous measures and scaled items. For example, an average score was generated for each of the readiness items, excluding blank responses or responses of *Don't Know / Not Observed*.

- Composite scores (averages across multiple items) were calculated for each of the four *Basic Building Blocks* dimensions. Reliability analyses were first conducted (using Cronbach's alphas) to ensure that reliability was high before composite scores were calculated. Cronbach's alphas for each *Basic Building Blocks* scales are listed below:

    - *Self-Care & Motor Skills*: Alpha=0.76

    - *Self-Regulation*: Alpha=0.96

    - *Social Expression*: Alpha=0.94

    - *Kindergarten Academics*: Alpha=0.82

- Independent t-tests were used to test whether differences in average scores were statistically significant between two groups.

- One-way analyses of variance were conducted to test whether differences in scores were statistically significant across more than two groups; if significant overall differences were found, post hoc LSD tests were used to determine which groups were significantly different from each other.

- Analyses of covariance were used to test whether differences in average scores across groups were significantly different after controlling for key background variables (e.g., family income, maternal education).

- Regression analyses were conducted to explore the strength of relations between readiness items and various student, family, and teacher characteristics.

- Cluster analysis was used to explore whether children in Alameda County manifested different readiness profiles than have been seen in previous assessments.

### Statistical Notation

Throughout this report, ASR uses the following standard abbreviations:

- *N* is used when noting the sample size for a chart or an analysis.
- *P*-values (e.g., $p < .01$) are used to note whether certain analyses are statistically significant. *P*-values that are less than .05 are statistically significant; *p*-values that are between .06 and .10 are marginally significant. All significance tests were two-tailed tests (more conservative) rather than one-tailed tests (less conservative).
- The abbreviation "*ns*" is used to flag analyses that did not reach statistical significance.

## A Note about How to Interpret the Data in This Report

Teachers participated in the readiness study voluntarily. This means that the information presented in this report describes only the students and families assessed. As a result, **although the data may hint at the broader picture of readiness county-wide, the findings cannot be extrapolated to any county-level populations.**

For this reason, it is also important that readers not draw conclusions about trends over time across multiple years of Alameda County readiness measurements. The students measured in 2008 are a very different group than those measured in 2011 – in terms of the districts in which they attend school, their socioeconomic and demographic profiles, their readiness levels, and many other factors. An example of the changing make-up of the readiness study participants between 2008 and 2011 can be seen in the figure that follows. The 2008 sample included students from only three districts – mostly from San Lorenzo Unified – and there were no students participating who attended high-performing schools, according to Academic Performance Index (API) measures. By this year's study, however, teachers from nine districts were participating, and the participating kindergarten students and families included a mixture from Low, Middle, and High API schools.

Figure 4. **An Overview of Participation in 2008-2011**

| District and School Information | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Percentage of sample from each district | | | | |
| San Lorenzo | 81% | 56% | 19% | 21% |
| Livermore | 16% | 18% | 14% | 13% |
| Oakland | 3% | 4% | 14% | 17% |
| Hayward | 0% | 17% | 21% | 12% |
| Emery | 0% | 5% | 2% | 0% |
| Berkeley | 0% | 0% | 18% | 0% |
| Pleasanton | 0% | 0% | 7% | 6% |
| Castro Valley | 0% | 0% | 5% | 4% |
| Fremont | 0% | 0% | 0% | 10% |
| New Haven | 0% | 0% | 0% | 7% |
| San Leandro | 0% | 0% | 0% | 11% |
| Percentage of sample from each API level | | | | |
| Low API school | 48% | 57% | 39% | 47% |
| Middle API school | 52% | 43% | 34% | 35% |
| High API school | 0% | 0% | 27% | 18% |

Note: Sample size for 2011 =1,597 and 1,575,respectively. One school was not included in the API ranking data because it is a charter school. Low API is defined as a state rank of 1, 2, or 3; Middle API is state rank of 4, 5, 6, or 7. High API is 8 or above. 2010 state API ranks were used for Fall 2011 as that was the most recent data available at the time of this analysis.

Despite these sample differences, there have been a number of common themes in the data across the four years of conducting these readiness studies. These are the focus of a section toward the end of this report, entitled "Conclusions and Recommendations."

## Section Summary

In the months leading up to the start of the Fall 2011 school year, district and school administrators in nine school districts – Castro Valley, Fremont, Hayward, Livermore Valley Joint, Oakland, New Haven, Pleasanton, San Leandro, and San Lorenzo Unified School Districts – were approached by F5AC and invited to have schools in their districts take part in an assessment of the school readiness of their students entering kindergarten. Teachers from the participating schools attended a training session very early in the start of the school year – in which they were given information about the purpose of the study, full instructions and a timeline for completion of the study tasks, and copies of the four assessment forms to be completed.

Teachers secured consent from the parents of their students and distributed surveys that parents completed and returned in sealed envelopes. Shortly after obtaining parental consent, but after about five weeks of school on average (when children were fairly comfortable in their new surroundings, but their skills had not yet grown significantly since kindergarten entry), teachers assessed the proficiency of each of their students across 24 readiness skills and recorded their observations. Upon completion of all the student assessments, teachers next completed a form that measured the smoothness of each child's entry into kindergarten. Finally, teachers completed a survey that asked them about their beliefs about the kinds and levels of skills children need to be well-prepared for school success. Teachers returned all of their forms and received participation stipends from F5AC. Data were processed and analyzed, and F5AC program and service recipient data were merged with the assessment data collected to examine associations between receipt of F5AC services and readiness levels. Completion metrics

indicated good consent rates overall, with 77 percent of parents agreeing to let their child take part in the study. Eighty-three percent of parents who agreed to let their child participate and be assessed by his/her teacher also completed and returned a parent survey.

In reading this report, it is important to keep in mind that the data represent only those children, families, and teachers who participated in the assessment, as the study was not designed to be representative of a larger population.

# PART 1

# Portrait of Students and Families in the Study

**Contents of this Chapter:**

This chapter presents a portrait of the students involved in the assessment – their gender, age, ethnicity, preferred language, special needs, physical health and use of health care.

A profile of families is also presented, including a discussion of maternal education and income levels, home languages, household composition, family activities and routines, sources of parenting support and stress, and parents' beliefs about their role in their children's education.

**Key Findings:**

- *Student Characteristics:*
  - One thousand five hundred ninety-seven kindergarteners were assessed (51% girls; 49% boys)
  - Average age: five years; three months
  - Ethnic/racial backgrounds: 50% Hispanic/Latino, 18% Caucasian, 10% Asian, 9% African American, 7% multiracial, and 6% other ethnicities
  - Fifty-two percent were English Learners
  - Six percent of students had identified special needs; another six percent had *suspected* needs
  - Four percent were born with a low birth weight (a risk factor for delays in readiness)
  - Most students were well-connected to health care resources and 97% had insurance
  - A small percentage of students in the sample (2-3%) were identified by teachers as coming to school feeling hungry, tired, or ill "on most days" or "just about every day"
- *Family Characteristics*
  - One thousand three hundred thirty six parents/guardians returned *Parent Information Forms*
  - Forty-seven percent of families earned less than $35,000 annually. Money and paying bills were "somewhat" or "a big concern" for 75% of the families and 23% of children had a primary caregiver who had lost his/her job in the past year
  - More than half of parents (57%) reported reading with their children an average of five times a week or more
  - Sixty-three percent of children were within the AAP-recommended guidelines for daily screen time, spending an average of two hours or less per day in front of a computer or television.
  - Students from Hispanic/Latino backgrounds, those learning English, those coming from low-income families, and those with mothers who had low education levels were significantly less likely to be able to access the internet compared to their peers. In each of these groups, at least one in three families had no access to the internet
  - The most frequently used local family resources included parks (80% of families) and libraries (64% of families)
  - Although parents reported adequate social support for their parenting needs, more than half indicated that they had some needs for support when they needed to run an errand, take a break, or talk to someone to get advice about parenting
  - Parents generally reported taking an active role in their child's schooling, but responses indicated that some may need more tools and resources to feel that they can make a difference

# Kindergarten Students and Families in the 2011 Readiness Study

## Section Overview

Before describing how ready for school children are, it is important to know who is coming into Alameda County's kindergarten classrooms. What are their ethnic backgrounds? How many children start school with identified special needs? What kinds of early education experiences have they had? In what kinds of family environments have they spent their early years? The *Kindergarten Observation Form I (2011) and* the *Parent Information Form* gathered information on a number of demographic and socioeconomic characteristics of children and families, as well as measures of what their home and family environments were like. This section describes the students and families who were involved in the readiness assessment.

## Students

### Basic Demographics

There were more girls than boys in the assessment (51% versus 49% respectively). Children's average age was about five years and three months, with about one of five children (24%) having not yet reached their fifth birthday. Only two percent of children were six years or older when they began kindergarten.

Figure 5. **Students' Sex and Age Upon Kindergarten Entry**

| Demographics | Percent of students |
|---|---|
| Sex | |
| Boys | 49% |
| Girls | 51% |
| Age (average age = 5.28 yrs) | |
| Between 4 1/2 and less than 5 | 24% |
| At least 5 and less than 5 1/2 | 49% |
| At least 5 1/2 and less than 6 | 26% |
| 6 and older | 2% |

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

Note: Sample size = 1,597 and 1,578. Percentages may not sum to 100 due to rounding..

Students of Hispanic/Latino backgrounds were the most common race/ethnicity among the assessed children, representing 50 percent of the students. Caucasian students were the next largest racial group with 18 percent of students, followed by African American students (9 percent of the sample). Asian and multi-racial students each made up ten percent and seven percent of the sample respectively.

Figure 6. **Percent of Kindergarten Students Representing Each Race/Ethnicity**

| Race/Ethnicity | Percent |
|---|---|
| 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% |

Source: Kindergarten Observation Form I (2011).

Note: Sample size = 1,567. Percentages may not sum to 100 due to rounding.

## Language Variables

Information gathered in the assessment suggests that there is great linguistic diversity among kindergarten students; slightly more than half of students (52%) were English Learners.

Figure 7. **Students' English Learner Status**

| Children's Language Status | Percent |
|---|---|
| English Learner | 52% |
| Not English Learner | 48% |

Source: Kindergarten Observation Form I (2011).

Note: Sample size = 1,587.

More than half of students (58%) spoke English as their primary language, and 36 percent of students spoke Spanish as their primary language. Chinese was the next most commonly spoken language (3% of students). Reflecting the diversity of Alameda County, small percentages of children spoke Filipino/Tagalog, Vietnamese, Farsi or Dari, or Punjabi or Hindi. One percent spoke another primary language.

Figure 8. **Students' Primary Languages**

| Primary Language | Percent |
|---|---|
| English | 58% |
| Spanish | 36% |
| Chinese/Mandarin/Cantonese | 3% |
| Filipino/Tagalog | 1% |
| Vietnamese | 1% |
| Farsi or Dari | <1% |
| Punjabi or Hindi | 1% |
| Other language | 1% |

Source: Kindergarten Observation Form I (2011).

Note: Sample size = 1,597. Percentages may not sum to 100 because more than one language could be chosen.

Teachers who were able to speak the primary language of their students were asked to rate each one's progress in his or her primary language. Results are shown in the figure below. Although most children (68%) were believed by their teachers to be "on track" with their use of language, 11 percent were rated to be "delayed," and 14 percent were described as "advanced."

Figure 9. **Teachers' Assessment of Children's Use of Primary Language**

| Children's Use of Primary Language | Percent |
|---|---|
| Delayed | 11% |
| On track | 68% |
| Advanced | 14% |
| Cannot determine | 7% |

Source: Kindergarten Observation Form I (2011).

Note: Sample size = 1,575. Percentages may not sum to 100 due to rounding.

For those students who spoke a language other than English as their primary language, teachers provided their assessment of students' receptive English skills (their ability to understand English), as well as their expressive language skills (their English-speaking ability). Most of these students were still struggling to acquire both types of English skills, with 83 percent at the "beginning" or "early intermediate" levels on their receptive skills and 85 percent at the "beginning" or "early intermediate" levels on their expressive English skills.

Figure 10. **Teachers' Assessment of English Skills of Children Whose Primary Language Is Not English**

| Children's English Skills | Beginning | Early intermediate | Intermediate | Early advanced | Advanced |
|---|---|---|---|---|---|
| Receptive language skills | 53% | 30% | 12% | 3% | 2% |
| Expressive language skills | 56% | 29% | 11% | 3% | 1% |

Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 651and 650 students, respectively. Percentages may not sum to 100 due to rounding.

## Physical Health and Well-Being

To better understand the health and well-being of entering kindergarten students, teachers were asked to report how frequently each child indicated (s)he was hungry, appeared tired in class, was sick or ill, was absent, or was tardy. As the figure below shows, the basic physical needs for almost all children are being met. However, on at least some days (and sometimes more often), 13 percent or more of students had come to school feeling hungry, tired, or sick, or they had been frequently absent or tardy.

Figure 11. **Teacher Reports of Children's Well-Being**

| Well-Being Indicator | Rarely or almost never | On some days | On most days | Just about every day |
|---|---|---|---|---|
| Indicated (s)he was hungry | 83% | 15% | 1% | <1% |
| Appeared tired in class | 83% | 15% | 2% | 1% |
| Was sick or ill | 89% | 11% | 1% | <1% |
| Was absent | 87% | 13% | <1% | <1% |
| Was tardy | 88% | 10% | 2% | 1% |

Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 1,585, 1,585, 1584, 1,586 and 1,569 students, respectively.

Previous research has shown an association between low birth weight and early school difficulties and grade retention (e.g., Byrd & Weitzman, 1994). For this reason, a question about low birth weight was included on the *Parent Information Form*. Among the children in the assessment, 4 percent had been born weighing less than five pounds, eight ounces.

Figure 12. **Percentage of Children with Low Birth Weight**

| Birth Weight | Percent |
|---|---|
| Child weighed less than 5 lbs 8 ounces | 4% |
| Child did not weigh less than 5 lbs 8 ounces | 96% |

Source: Parent Information Form (2011).

Note: Sample size = 1,255. Percentages may not sum to 100 due to rounding.

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

The *Parent Information Form* contained several questions relating to children's access to and use of various health services. Slightly less than half of students (45%) were covered by private insurance. Thirty-nine percent were insured by Medi-Cal, and one in ten (10%) was insured through Healthy Families. Three percent of children in the sample had no health care coverage.

Figure 13. **Sources of Children's Health Insurance**

| Types of Insurance | Percent |
|---|---|
| Private insurance | 45% |
| Medi-Cal | 39% |
| Healthy Families | 10% |
| Child has no health insurance | 3% |

Source: Parent Information Form (2011).

Note: Sample size = 1,259. Percentages may not sum to 100 due to rounding.

On the *Parent Information Form,* parents were also asked if their child had a regular source of medical care and a dentist. Almost all children (98%) had a regular doctor, pediatric provider, or clinic, and 90 percent had a regular dentist.

In terms of care received during the last year, 91 percent of children had been to a dentist, 75 percent and 77percent, respectively, had had hearing and vision exams, and 41 percent had received a developmental screening.

Figure 14. **Children's Access to and Use of Health Care**

| Use of Health Care | Percent |
|---|---|
| Has a regular doctor, pediatric provider, or clinic | 98% |
| Has a regular dentist | 90% |
| Has had a dental exam in the past year | 91% |
| Has had a hearing exam in the past year | 75% |
| Has had a vision exam in the past year | 77% |
| Has received a developmental screening in the past year | 41% |

Source: Parent Information Form (2011).

Note: Sample sizes are as follows: 1,306, 1,307, 1,307, 1,337, 1,337, & 1,337.

## Special Needs

Information about children's special needs comes from two sources in the assessment: either from teachers (as reported on the *Kindergarten Observation Form I*) or from parent reports on the *Parent Information Form*. According to parents and/or kindergarten teachers, six percent of children were identified as having special needs identified by a professional at the time they entered school; another six percent were suspected by a parent or teacher to have an as-yet not formally diagnosed special need.

Figure 15. **Presence of Special Needs**

| Special Needs Status | Percent |
|---|---|
| Has special needs | 6% |
| Teacher or parent suspects a special need (not [yet] identified by a professional) | 6% |
| Does not have special needs | 89% |

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

Note: Sample size = 1,587. Percentages may not sum to 100 due to rounding.

Parents and teachers who indicated that a child had a special need were asked to describe that special need and to provide more information about services sought and received. More than half of parents (58%) learned about their child's special need from a pediatrician or other doctor. Twenty-five percent of parents had learned about their child's special need from another professional.

Figure 16. **How Parents Learned of Special Need**

| Source of Diagnosis/Assessment of Special Needs | Frequency | Percent |
|---|---|---|
| Child's pediatrician or other doctor | 42 | 58% |
| Another professional | 18 | 25% |
| Own diagnosis/ assessment | 9 | 13% |
| Other | 3 | 5% |

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

Note: These percentages are based on responses of 72of parents whose child had a special need (according to parent or teacher) and also answered questions about how they learned about it. Please note that sample sizes are small; therefore, findings may not be stable.

The most common special needs mentioned were problems with speech and language, affecting 30 percent of the children with special needs in the sample.

Figure 17. **Types of Special Needs, as Reported by Parents and Teachers**

| Types of Special Needs | Frequency | Percent |
|---|---|---|
| Speech and language | 21 | 30% |
| Vision | 10 | 14% |
| Asthma and/or allergies | 7 | 10% |
| Hearing | 4 | 6% |
| Behavioral/ emotional /psychological | 4 | 6% |
| Attention deficit and/or hyperactivity disorders | 7 | 10% |
| Other physical health issues | 5 | 7% |
| Autism | 2 | 3% |

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

Note: These percentages are based on write-in responses of 54 parents who indicated that a child had a special need and provided a response. Percentages sum to more than 100% because a child could have more than one special need.

Children's special needs were most often diagnosed when children were two years old or younger (48% of children with special needs); however, there was no strong trend in when children's special needs were identified – identification occurred across all age ranges.

Figure 18. **Age at Identification of Special Need**

| Age at First Identification | Frequency | Percent |
|---|---|---|
| Birth to 2 years old | 33 | 48% |
| Just over 2 years to 3 years old | 14 | 20% |
| Just over 3 years to 4 years old | 9 | 13% |
| Just over 4 years or older | 13 | 19% |

Source: Parent Information Form (2011).

Note: These percentages are based on 69 parents whose children have special needs who completed information on the age their child was diagnosed. Percentages may not sum to 100 due to rounding.

Eighty-seven percent of the children with special needs had received professional help to address it; 13 percent had not received professional help.

Figure 19. **Receipt of Services for Special Needs**

| Receipt of Help for Special Need | Frequency | Percent |
|---|---|---|
| Child received help for special need | 48 | 87% |
| Child did not receive help for special need | 7 | 13% |

Source: Parent Information Form (2011).

Note: These percentages are based on 55 parents whose children have special needs who completed information on receipt of services.

## Families and Households

Because children's school readiness can be impacted by a host of socioeconomic and family characteristics, several questions on the *Parent Information Form* sought to learn more about the children's family contexts. Several key factors relating to children's family circumstances are described in this section.

### Maternal Education

Local and national readiness assessments have found strong linkages between maternal education levels and children's school readiness (e.g., Alexander & Entwisle, 1988). To enhance our understanding of whether this factor was also associated with readiness levels among Alameda County kindergarten students, parents were asked to provide information about the child's mother's education level.[4] In the current sample, 12 percent of mothers had not graduated from high school. Thirty percent had completed high school, but had not pursued higher education. Another 36 percent had some college or an AA/AS degree, and 22 percent completed a bachelor's or advanced degree.

[4] We recognize and regret that this question can be perceived as exclusionary or overly narrow to those with family structures that are not characterized by one mother and one father; our intention with this question was to allow for comparisons with a broader research literature that uses this variable as a predictor of readiness, and not to exclude or devalue families that have a different structure than this.

Figure 20. **Highest Level of Education Completed by Child's Mother**

| Education | Percent of mothers |
|---|---|
| Less than 6th grade | 3% |
| 6th grade | 5% |
| 7th or 8th grade | 4% |
| High school graduate | 30% |
| Some college | 27% |
| Associates degree (AA/AS) | 9% |
| Bachelor's degree (BA/BS) | 15% |
| Advanced degree | 7% |

Source: Parent Information Form (2011)

Note: Sample size = 1,281. Percentages may not sum to 100 due to rounding.

## Family Income

Parents completing the *Parent Information Form* were asked to provide their annual family income. Results revealed that incomes were very low for a fair number of these families; almost half of them (47%) made less than $35,000 per year.

Figure 21. **Yearly Family income**

| Income Range | Percent |
|---|---|
| Less than $15,000 | 22% |
| $15,000 - $34,999 | 25% |
| $35,000 - $49,999 | 15% |
| $50,000 - $74,999 | 12% |
| $75,000 - $99,999 | 9% |
| $100,000 or more | 17% |

Source: Parent Information Form (2011)

Note: Sample size = 1,215. Percentages may not sum to 100 due to rounding.

## Home Languages

Parents were asked to indicate the language they used most often at home with their child. English (47%) and Spanish (34%) were most commonly cited.

Figure 22. **Language Used Most Often at Home**

| Language | Percent |
|---|---|
| English | 47% |
| Spanish | 34% |
| Chinese/ Mandarin/ Cantonese | 3% |
| Vietnamese | 2% |
| Filipino/ Tagalog | 1% |
| Hindi/Punjabi | 1% |
| Farsi or Dari | <1% |
| Korean | <1% |
| Other language | 1% |
| [English & Spanish both checked] | 6% |
| [English & other language checked] | 5% |

Source: Parent Information Form (2011).

Note: Sample size = 1,311. Percentages may not sum to 100 due to rounding.

Slightly less than two-thirds of parents (63%) indicated they spoke English very well, whether or not it was their primary language. Nearly one in four (23%) reported that they did not speak English very well or at all.

Figure 23. **Parents' Self-Reported Level of English-Speaking Proficiency**

| English-speaking Proficiency | Percent |
|---|---|
| Very well; English is my primary language | 45% |
| Very well, but English is not my first language | 18% |
| Somewhat well; I usually- but not always- can communicate what I want to say in English | 14% |
| Not very well; I know some words in English, but often not enough to communicate what I want to say | 16% |
| Not at all; I know very few or no English words | 7% |

Source: Parent Information Form (2011)

Note: Sample size = 1,294. Percentages may not sum to 100 due to rounding.

## Number of People in Household

Families in the assessment reported an average of 4.62 people living in their household. Eight percent of families in the study had seven or more people living in their household.

Figure 24. **Number of People in Household**

| Household Residents | Average | Range |
|---|---|---|
| Number of children 0-5 years | 1.52 | 1 - 5 |
| Number of children 6-17 years | 0.92 | 0 - 5 |
| Number of adults 18 yrs and older | 2.20 | 1-10 |
| Total household residents | 4.62 | 2 - 16 |

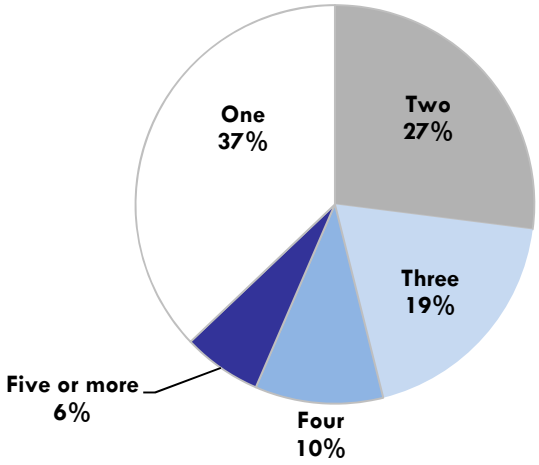
Source: Parent Information Form (2011)

Note: Sample sizes are as follows: 1,291, 1283, 1291, 1293 (n for total number).

## Family Mobility

Parents were asked how many addresses they had lived at since the birth of their child. On average, families had lived at two addresses (mean = 2.28), with answers that ranged from one to eleven different addresses. Responses are displayed in the figure that follows.

Figure 25. **Number of Addresses Since Child's Birth**



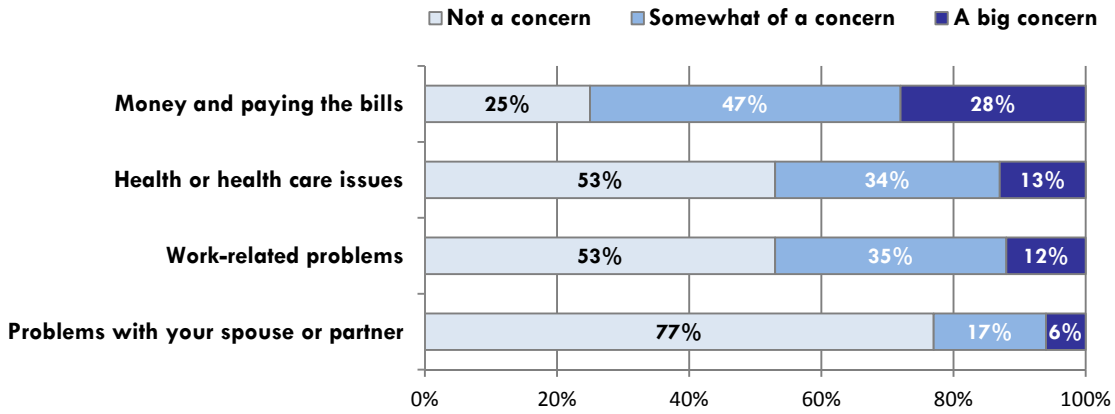

Source: Parent Information Form (2011)

Note: Percentages are based on 1,275 responses.

## Potential Sources of Family Stress

A set of four questions answered by parents assessed the degree to which they were facing challenging family circumstances. The majority of parents who responded reported at least some concern over money and paying the bills; 28 percent felt this was "A big concern." About half of families reported that work issues or health/healthcare issues were at least somewhat of a concern. Fewer families (23%) felt some level of concern about problems with their spouse or partner.

Figure 26. **Parent Reports of Life Concerns**




Source: Parent Information Form (2011).

Note: Sample sizes are as follows (from top to bottom): 1,286, 1,265, 1249, and 1,254.

## Other Indicators of Possible Family Risk

Some families in the assessment reported challenging life circumstances. Ten percent of children were born to a teenage mother. In addition, 20 percent of parents reported being a single parent, and 23 percent had lost a job in the past year.

Figure 27. **Indicators of Possible Family Risk**

| **Risk Variable** | Percent |
|---|---|
| Teen mother when child was born | 10% |
| Single parent | 20% |
| Parent lost job in the last year | 23% |

Source: Parent Information Form (2011).

Note: Sample sizes are as follows: 1,212, 1,293, 1,257.

## A Picture of Family Activities and Daily Routines

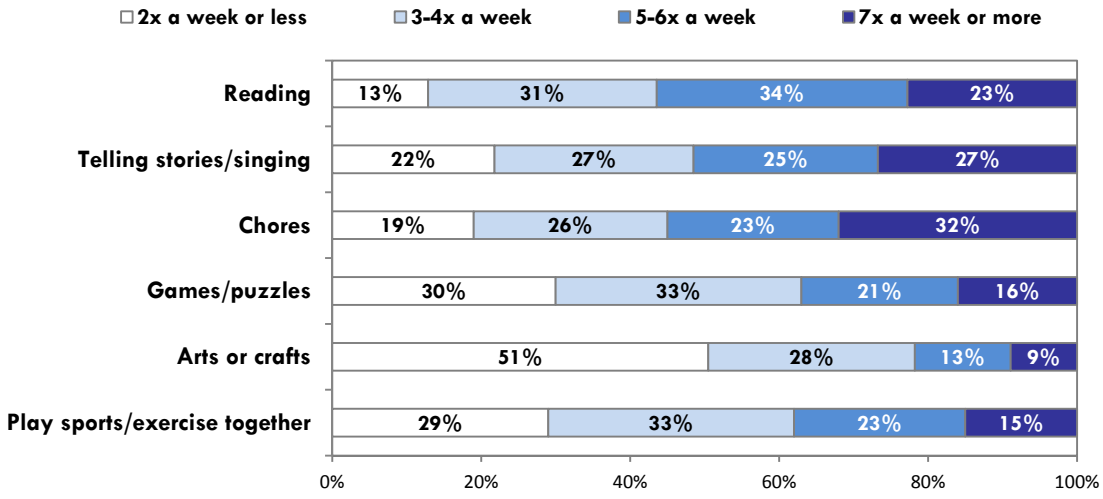
To get a better picture of the activities in which families of new kindergarten students engage, the *Parent Information Form* asked parents to report how often they spent time doing a variety of activities with their child during a typical week, including:

- Reading for more than five minutes

- Telling stories or singing songs
- Involving children in household chores
- Playing games or doing puzzles
- Doing arts and crafts
- Playing a sport or exercising together

Fifty-seven percent of families read with their children five or more times per week. Just over half (52%) told stories or sang songs with children five or more times per week. Fifty-five percent involved their children in chores five or more times per week. More than one-third of families were playing games or doing puzzles or playing sports or exercising with their children five or more times per week (37% and 38% of families, respectively). Doing arts and crafts with children was a relatively infrequent activity for most families; about half (51%) did this fewer than three times per week.

Figure 28. **Frequency of Family Activities**

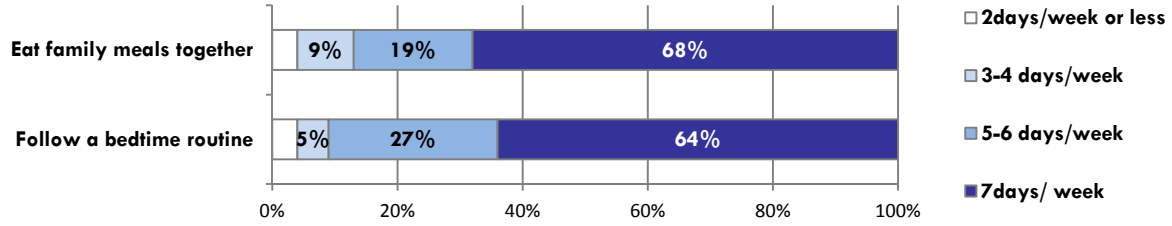



Source: Parent Information Form (2011)

Note: Percentages are based on 1,286-1,289 families. Percentages may not sum to 100 due to rounding.

The *Parent Information Form* also included questions about several daily routines, including the frequency of family meals and bedtime routines. As the following figure shows, most families (68%) ate at least one meal together every day of the week. Most children (64%) followed a bedtime routine each night, but 9 percent followed a bedtime routine four nights a week or less.

Figure 29. **Frequency of Family Routines**




Source: Parent Information Form (2011)

Note: Percentages are based on 1,303 -1,305 families. Percentages may not sum to 100 due to rounding. Findings less than five percent are not labeled.

Most children in the assessment (87%) had bedtimes between 8:00 and 9:30 pm, but nine percent went to bed at 10:00 or later.

Figure 30. **Bedtime**

| **Time** | Percent |
|---|---|
| Before 8 pm | 5% |
| 8:00 – 8:30 pm | 41% |
| 9:00 – 9:30 pm | 46% |
| 10:00pm or later | 9% |

Source: Parent Information Form (2011)

Note: Sample size = 1,273. Percentages may not sum to 100 due to rounding.

Most children ate breakfast each day before school, but 18 percent missed at least one weekday breakfast.

Figure 31. **Frequency of Weekday Breakfasts**

| **Breakfast Eating** | Percent |
|---|---|
| Number of weekdays child has breakfast | |
| 0 – 2 days | 7% |
| 3-4 days | 11% |
| All 5 days | 82% |

Source: Parent Information Form (2011)

Note: Sample size = 1,310. Percentages may not sum to 100 due to rounding.

## Amount of "Screen Time"

The American Academy of Pediatrics (AAP) recommends that young children get no more than two hours of "screen time" per day. Parents were asked to report the amount of time their child spent watching television or videos or playing video or computer games.

On average, children in this assessment spent just OVER two hours per day on "screen time" activities (mean = 127 minutes). More than one-third of the children in this sample (37%) were spending more than the recommended two hours per day on screen time activities, according to parent reports.

Figure 32. **Overall Screen Time Spent by Children per Day**

| **Screen time** | Percent |
|---|---|
| 0 – ½ hour | 8% |
| More than ½ - 1 hour | 17% |
| More than 1 - 1½ hours | 14% |
| More than 1½ hours - 2 hours | 24% |
| More than 2 hours - 3 hours | 24% |
| More than 3 hours - 4 hours | 8% |
| More than 4 hours | 5% |

Source: Parent Information Form (2011)

Note: Sample size = 1,268. Percentages may not sum to 100 due to rounding.

## Access to the Internet

The 2011 readiness study marks the first time the *Parent Information Form* has included questions assessing families' ability to access information on the internet. According to responding parents, more than one in five (22%) did not have access to the internet for their personal use. Among those who did, the most frequent means of accessing the internet was at home(93%), followed by a smartphone (40%) and at work (20%).

Figure 33. **Access to the Internet**

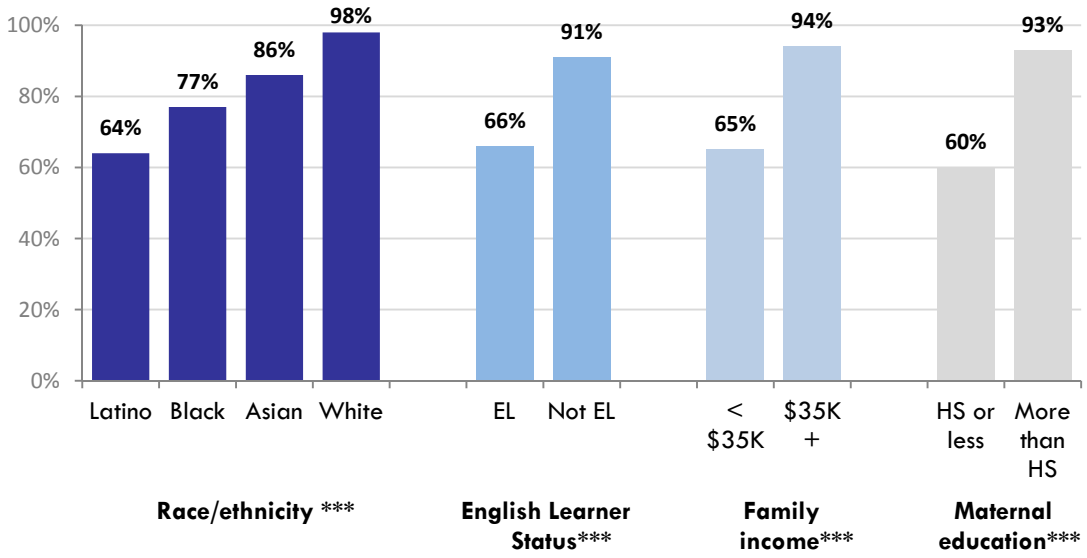
| Internet Access | Percent/ number |
|---|---|
| Has internet access for personal use | 78% |
| Does not have internet access | 22% |
| Average number of ways of accessing the internet | 1.85 |
| Ways/places you typically access the internet | |
| Home | 93% |
| Smartphone | 40% |
| Work | 20% |
| Friends or family's home | 9% |
| Library | 9% |
| School | 6% |
| Public wi-fi | 4% |
| Internet café | 3% |
| Other | 1% |

Source: Parent Information Form (2011)

Note: Sample size = 1,323, 1,029, 1,029. Respondents could select more than one source for their internet access.

Further analysis revealed large disparities in families' ability to access the internet. The figure that follows shows the percentage of different respondents who indicated they had access to the internet for their personal use. As the figure shows, Hispanic/Latino families were much less likely to have internet access than families from other ethnic groups. Nearly all White families (98%) in the sample had internet access. About one out of three families of students learning English had no internet access. Similarly, one out of every three low-income families (those earning less than $35,000 per year) had access to the internet. Those with education levels beyond high school were also much more likely than those with no post-high-school education to have internet access.

Figure 34. **Who Has Access to the Internet?**




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

Note: Percentages are based on 637 Hispanic/ Latino students, 137 Asian students, 97 African American students, and 290 Caucasian students; 690 EL students, 625 not EL students; 572 low income students, 633 non-low-income students; 538 low maternal education, 733 high maternal education. All group comparisons differed significantly, according to chi-square tests ($p < .001$).

## Use of Local Family Resources

Alameda County has a number of community resources for families. Parents were asked to indicate whether they had ever used any of seven local family resources, including local parks; libraries; recreational activities, camps and sports; local museums; community clinics; art/music programs, or anything else. Local parks and libraries were the most likely to have been used by families (80% and 64%, respectively). A large percentage (43%) had also used local recreational activities, camps, and sports. However, few families had used the other local resources. About one-fourth had been to local museums, 20 percent had used a community clinic and 12 percent had been involved in an arts or music program. On average, families had used 2.45 family resources.

Figure 35. **Local Family Resources Used**

| Local Resources | Percent |
|---|---|
| Local parks | 80% |
| Libraries | 64% |
| Recreational activities, camps, and sports | 43% |
| Local museums | 24% |
| Arts/music program | 12% |
| Community clinic | 20% |
| Other | 4% |
| None of the above | 9% |

Source: Parent Information Form (2011)

Note: Sample size = 1,293.

## Use of Parenting Programs, Services and Supports

The *Parent Information Form* included a list of nine programs, services, and supports for families with children; parents were asked to indicate which they had used. On average, parents had used between two and three of the listed supports (mean = 2.48). The most commonly used was regular medical check-ups while pregnant; however, while this is recommended for all pregnant women, only 73 percent of women in this sample reported having received such check-ups. Just under half of families (49%) had received assistance from WIC (Women, Infants, Children). Twelve percent of the families had accessed none of the parenting supports listed.

Figure 36. **Receipt of Parenting Programs, Services and Supports**

| Parenting Programs, Services and Supports | Percent |
|---|---|
| Regular medical check-ups while pregnant | 73% |
| WIC | 49% |
| Help from extended family | 38% |
| Information from your child's child care provider | 27% |
| Help from neighbors and/or friends | 23% |
| Parent education classes | 20% |
| Information or programs at your church/religious organization | 11% |
| Home visits from a nurse, community worker, or other provider | 8% |
| Parent support groups | 8% |
| None of the above | 12% |

Source: Parent Information Form (2011)

Note: Sample size = 1,305.

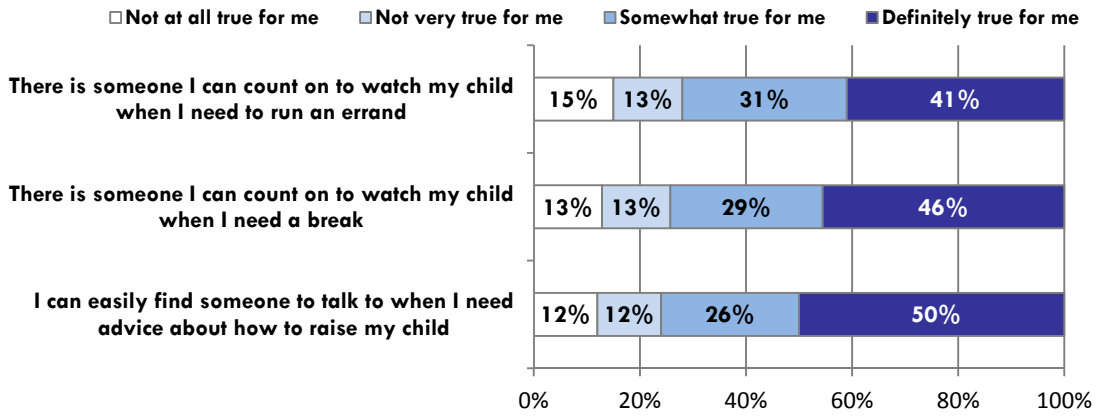
## Perceptions Related to Parenting

The *Parent Information Form* included a set of questions to assess parents' perceptions of being supported in their parenting and having social resources to parent effectively. Parents were asked a set of questions adapted from the First 5 San Mateo County 2006 Family Survey. These included the extent to which:

- There was someone they could count on to watch their child when they needed to run an errand
- There was someone they could count on to watch their child when they needed a break
- They could easily find someone to talk to when they needed advice about how to raise their child

The figure that follows shows that parents sometimes had needs for additional social support related to parenting. Many parents did not feel that they had someone they could count on to watch their child if they needed to run an errand or if they needed a break; 28 percent and 26 percent of parents, respectively, felt that having this kind of support was "not very" or "not at all" true for them. In both instances, less than half of parents definitely felt they had someone they could count on to watch their child if needed. More parents (50%) reported that they definitely had someone to talk to about how to raise their child, but there were some needs in this domain as well.

Figure 37. **Parents' Perceptions of Support for Parenting**

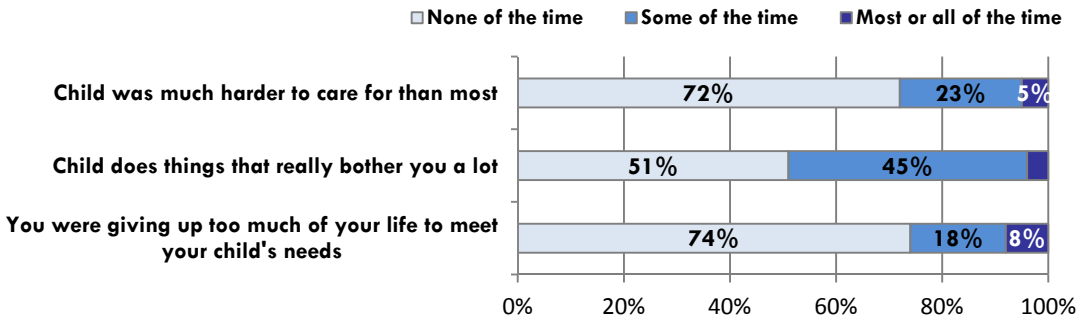



Source: Parent Information Form (2011).

Note: Sample sizes are as follows (from top to bottom): 1,307, 1,293, and 1,283. Percentages may not sum to 100 due to rounding.

Parents also provided information about how often they experienced negative feelings about parenting, using a set of questions taken from the National Survey of Children's Health (2003). Twenty-eight percent of parents reported feeling at least some of the time that their child was much harder to care for than most. About half (51%) indicated that – at least some of the time – their child does things that really bother them a lot. Twenty-six percent of parents felt that they were giving up too much of their lives to meet their child's needs at least some of the time.

Figure 38. **Parenting Attitudes**




Source: Parent Information Form (2011).

Note: Sample sizes are as follows (from top to bottom): 1,299, 1,297, and 1,289. Percentages may not sum to 100 due to rounding. Findings less than five percent are not labeled.

Finally, parents indicated how much they agreed or disagreed with several statements regarding their own role in their child's education via a parent efficacy scale developed by Hoover-Dempsey and Sandler (2005). The figure that follows shows parents' responses to these questions; the responses in bold text highlighted in green display the answers that indicate higher levels of efficacy. As the figure shows, parents believed they play an important role in their child's education, but parents may need more tools and resources to feel empowered in making a difference. For example, 35percent of parents agreed at least a little with the statement, "Most of a child's success in school depends on the classroom teacher – I have

limited influence." Similarly, 24 percent of parents indicated that they don't know how to help their child make good grades in school.

Figure 39. **Parent Beliefs About Their Role in Child's Education**

| Statement | Disagree strongly | Disagree | Disagree just a little | Agree just a little | Agree | Agree very strongly |
|---|---|---|---|---|---|---|
| Most of a child's school success depends on teacher - I have little influence. | **27%** | **31%** | **7%** | 11% | 17% | 7% |
| I don't know how to help my child make good grades in school. | **35%** | **36%** | **6%** | 7% | 12% | 5% |
| I like to spend time at my child's school when I can. | 1% | 1% | 1% | **7%** | **45%** | **45%** |
| It's important that I let the teacher know about things that concern my child. | 2% | 1% | <1% | **2%** | **36%** | **59%** |
| I make a significant difference in my child's school performance. | 2% | 1% | 2% | **9%** | **44%** | **42%** |
| If I try hard, I can help my child learn, even when (s)he has difficulty understanding something. | 2% | 1% | 1% | **3%** | **39%** | **54%** |

Source: Parent Information Form (2011).

Note: Sample sizes are as follows (from top to bottom): 1,255, 1,245, 1,279, 1,288, 1,256, and 1,289.

## Section Summary

Children in the assessment were on average about five years and three months old when they began kindergarten. Half of students in the study were from Hispanic/Latino backgrounds, but there was great diversity in the sample. Just under one in five students was Caucasian, one in ten was Asian, and another one in ten was African American. Slightly more than half of the student sample (52%) was an English Learner.

Six percent of children had identified special needs at the time of kindergarten entry (most often speech- and language-related). Another six percent of students were suspected by parents or teachers as possibly having special needs, but they had not (yet) been formally identified. Four percent of students had been born with a low birth weight (a risk factor for delays in readiness). Students were generally well-connected to health care resources; 98 percent had a regular doctor, pediatric provider, or clinic, and 97 percent had some form of health insurance.

Twelve percent of the sample had mothers who had not graduated from high school, and almost half of families (47%) earned less than $35,000 per year. Money and paying the bills were at least somewhat of a concern for three-fourths of the sample. Ten percent of students had been born to a teen mother. Twenty percent lived in a single-parent household, and 23 percent had a parent who had lost a job in the past year.

Families engaged in many activities together during a typical week. More than half of parents (57%) reported reading with their children an average of five times a week or more, and 63 percent of children were within the AAP-recommended guidelines for daily screen time, spending an average of two hours or less per day in front of a computer or television.

Slightly more than three fourths of the families sampled (78%) indicated they had access to the internet for their personal use. However, there were very large disparities in internet access among different types of families. Students from Hispanic/Latino backgrounds, those learning English, those coming from low-income families, and those with mothers who had low education levels were significantly less likely to be able to access the internet compared to their peers. In each of these groups, at least one in three students had no access to the internet.

The most frequently used local family resources included parks (80% of families) and libraries (64% of families). Although parents reported adequate social support for their parenting needs, half or more indicated that they had some needs for support when they needed to run an errand, take a break, or talk to someone to get advice about parenting. Some parents also occasionally experienced negative feelings about parenting, with four to eight percent indicating some negative feelings "most or all of the time." When parents specifically reported on their beliefs about their own role in their child's education, parents generally reported taking an active role in their child's schooling, but some may need more tools and resources to feel that they can make a difference.

A small percentage of students in the sample (2-3%) were identified by teachers as coming to school feeling hungry, tired, or ill "on most days" or "just about every day." In previous readiness studies – as well as this one – these students tended to be far behind their peers on their readiness skills. The characteristics of these students are further explored in the section, "Student and Family Factors Associated with School Readiness."

# PART 2

# Preschool and Other Early Care Experiences

**Contents of this Chapter:**

This chapter describes students' early care and education experiences in the year prior to kindergarten and explores the child and family characteristics that were associated with a greater likelihood of preschool attendance.

**Key Findings:**

- *Early Care and Education Experiences of Students in the Year Prior to Kindergarten Entry:*
  - Sixty-two percent of students had attended a licensed preschool or childcare center
  - Eight percent had attended the Summer Pre-K program sponsored by First 5 Alameda County
  - In addition to parental care, 21 percent of students assessed had spent time in relative/neighbor care, and five percent had attended licensed care in someone's home

- *What Factors were Associated with Preschool Attendance?*
  - As family income and education levels increased, so did the likelihood of children having attended preschool, although there was a dip in preschool attendance rates among families making $50,000-$74,999.
  - Hispanic/Latino students were the least likely racial/ethnic group to have attended preschool, and Caucasian students were the most likely to have done so.

- *Preschool Attendance and Family Practices*
  - Compared to the parents of children who had not been to preschool, parents of preschool attendees:
    - engaged in more kindergarten transition activities
    - used more parent programs, services, and supports
    - engaged in more weekly family activities (including reading with their child)
    - reported more interpersonal parental support

# Preschool and Other Early Care Experiences

## Section Overview

How many children were exposed to preschool prior to kindergarten? What other types of early care experiences did children have? Parents and teachers both provided information about each child's care and education in the year before entry into kindergarten. This section summarizes the types of early care settings in which children spent time prior to kindergarten and examines characteristics of students who have and have not attended a licensed preschool or childcare center.

## Types of Early Care Experiences

As the figure shows, two-thirds of children (67%) had received their usual child care from a parent (alone or in combination with other sources). Twenty-one percent were cared for regularly by a relative or neighbor, seven percent by a babysitter or nanny, and five percent had attended a family child care home.

Data regarding preschool experience was represented using a combination of parent-reported and teacher-reported information. By combining these two data sources, it was determined that 62 percent of students in the assessment had attended a licensed preschool or childcare center, including Head Start, State Preschool, or private program.[5] This figure is similar to the 59 percent preschool enrollment rate reported by Children Now (2010) in their 2010 California County Scorecard for Alameda County.

Figure 40. **Students' Early Care Experiences**

| Type of Child Care Arrangements in the Year Prior to Kindergarten | Percent of students |
|---|---|
| Parent provided usual child care | 67% |
| Relative or neighbor | 21% |
| Babysitter or nanny | 7% |
| Licensed care in someone's home (teacher or parent report) | 5% |
| Licensed preschool or childcare center (e.g., Head Start, State Preschool, private – teacher or parent report) | 62% |

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

Note: Percentages are based on the following sample sizes: 1,259, 1,258, 1,257, 1,257, and 1,522.

[5] More information about the calculation of preschool rates is included in Appendix 8.

In addition, eight percent of students attended a short-term summer pre-K program sponsored by F5AC, and nine percent of students attended a different summer pre-K program.

Figure 41. **Attendance at a Summer Pre-K Program**

| Attended Summer Pre-K | Percent |
|---|---|
| F5AC Summer Pre-K | 8% |
| Summer Pre-K that was not F5AC | 9% |

Source: ECChange database and Kindergarten Observation Form I (2011), respectively.

Note: Sample sizes are as follows: 1,597 and 1,044. Children were counted as attending F5AC's Summer Pre-K if they were able to be matched to F5AC database records.

## Amount of Time Spent and Languages Spoken

How much time were children spending in these early care settings in the year prior to kindergarten? Children who were cared for by a relative or neighbor or by a babysitter or nanny most often spent 20 or fewer hours in their care per week. Similar patterns were seen for children who had attended a licensed preschool or center. Children who spent time in licensed family care were more likely than children in other types of care to be spending a large number of hours per week in others' care.

Figure 42. **Students' Weekly Hours in Different Early Care Settings**

| Type of Child Care Arrangements | Percent spending 1-20 hours per week | Percent spending 21-30 hours per week | Percent spending 31-40 hours per week | Percent spending 41+ hours per week |
|---|---|---|---|---|
| Child care by parent | 11% | 7% | 8% | 74% |
| Relative or neighbor | 57% | 14% | 19% | 10% |
| Babysitter or nanny | 50% | 21% | 16% | 14% |
| Licensed care in someone's home | 28% | 27% | 25% | 20% |
| Licensed preschool or childcare center (e.g., Head Start, State Preschool, private) | 58% | 10% | 23% | 9% |

Source: Parent Information Form (2011).

Note: Percentages are based on the following sample sizes: 739, 251, 88, 60, 482. Percentages may not add up to 100 due to rounding.

Parents were asked to indicate the languages spoken in the child care settings where their children spent time. English (80%) and Spanish (43%) were by far the most common languages spoken in these child care settings.

Figure 43. **Languages Spoken in Children's Child Care Settings**

| Languages in Child Care Arrangements | Percent of students |
|---|---|
| English | 80% |
| Spanish | 43% |
| Chinese/ Cantonese/ Mandarin | 5% |
| Filipino | 4% |
| Vietnamese | 2% |
| Farsi or Dari | 1% |
| Korean | <1% |
| Other | 4% |

Source: Parent Information Form (2011).

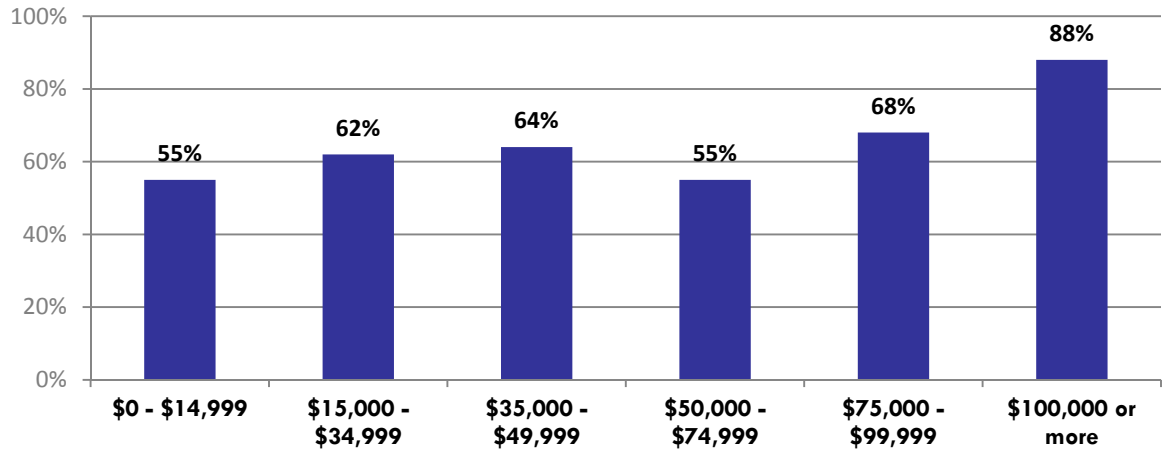
Note: Sample size = 1,272. Percentages sum to more than 100 because respondents could check more than one language.

## Who Attends Preschool?

Preschool attendance has been shown in countless studies to be strongly related to enhanced school readiness skills. Among children in this sample, 62 percent of children had attended a licensed preschool or childcare center, including Head Start, State Preschool, or private program. Who are the children in Alameda County who are being exposed to these preschool settings? In this section, various child and family background factors are examined to see what groups of children are more likely to have attended one of these preschool types.

The figure that follows breaks down preschool attendance as a function of families' income levels. As the figure shows, there is a general trend showing that as income increases, so does attendance at a licensed preschool or childcare center. There is a slight dip in these preschool rates among families earning $50,000 - $74,999 per year. In previous years, this dip was also observed, but for a lower income group (those making $35,000 - $49,999).

Figure 44. **Licensed Preschool or Childcare Center Attendance (Head Start, State Preschool or Private Program) Attendance, by Income Level**

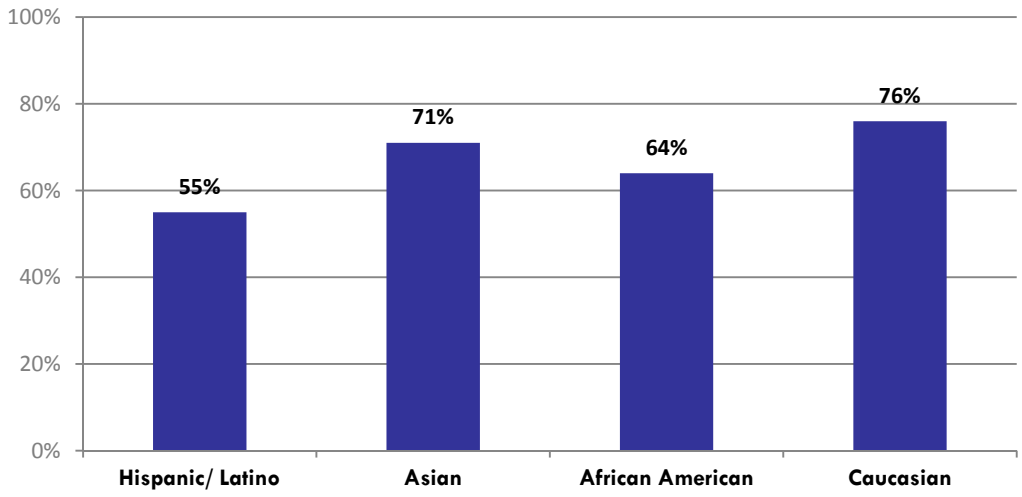



Source: Kindergarten Observation Form I (2011) and Parent Information Form (2011).

Note: Total sample size = 1,204. Preschool rates differ significantly as a function of income, according to chi-square tests ($p < .001$).

Rates of attendance at licensed preschool or childcare centers were also examined within the four largest racial/ethnic groups in the sample. As the figure shows, Hispanic/Latino children were least likely to have attended preschool, and Caucasian children were most likely to have done so.

Figure 45. **Licensed Preschool or Childcare Center Attendance (Head Start, State Preschool or Private Program) Attendance, by the Four Largest Racial/Ethnic Groups**




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

Note: Percentages are based on 742 Hispanic/ Latino students, 147 Asian students, 135 African American students, and 278 Caucasian students. Overall preschool attendance rates differed significantly, according to chi-square tests ($p < .001$).

Were students with experience in these preschool settings different in any other ways from students without experience in a licensed preschool or childcare center? The figure that follows compares the composition of the preschooled and non-preschooled groups.

Several differences between the two groups are apparent. First, English Learners made up a bigger portion of the non-preschooled group than the group who had been to preschool. In addition, 48 percent of children without preschool experience came from a family where the mother had more than a high school education, whereas 64 percent of children with preschool experience had a mother whose highest education level was beyond high school.

There were several group differences in family practices and experiences as well. Compared to parents of children who had not been to preschool, parents of preschool attendees:

- engaged in significantly more kindergarten transition activities;
- used more parent programs, services, and supports;
- engaged in more weekly family activities;
- were more likely to read to children on a daily basis; and
- reported greater levels of parenting support.

Figure 46. **How Do Preschoolers and Non-Preschoolers Differ?**

| **Child & Family Characteristics** | Among non-preschoolers | Among preschoolers |
|---|---|---|
| Percent who are 5 years or older | 74% | 78% |
| Percent who are girls | 52% | 51% |
| Percent who are English Learners*** | 59% | 49% |
| Percent who have special needs (parent or teacher report) | 4% | 7% |
| Percent whose mother is educated beyond high school*** | 48% | 64% |
| Percent who are read to an average of once a day or more*** | 18% | 26% |
| Average number of weekly family activities* | 24.19 | 25.65 |
| Average number of K transition activities (out of 10 possible)*** | 3.46 | 4.34 |
| Average number of parent programs, services, supports received (out of 9 possible)*** | 2.25 | 2.63 |
| Average levels of parent social support (1 to 4 scale)* | 2.98 | 3.10 |

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

Note: Sample sizes range from 457-528 for children without preschool experience and 729-821 for children with preschool experience. Significant differences according to chi-square tests or t-tests are indicated in bold and as follows: * $p < .05$; ** $p < .01$; *** $p < .001$.

## Section Summary

Sixty-two percent of children had attended a licensed preschool or childcare center, including Head Start, State Preschool, or a private program. Along with usual child care provided by a parent, some children (21%) were cared for by a relative or neighbor in the year prior to kindergarten. Five percent of students in this sample had been to licensed care in someone's

home, and eight percent of students had attended the Summer Pre-K program sponsored by First 5 Alameda County.

Who were the students who had attended a licensed preschool or childcare center? As family income and education levels increased, so did the likelihood of children having attended preschool, although there was a dip in preschool attendance rates among middle-income families making $50,000-$74,999. Hispanic/Latino students were the least likely racial/ethnic group to have attended preschool, and Caucasian students were the most likely to have done so.

Preschool may have some impacts on family practices and families' connectedness to resources to support their children. Compared to the parents of children who had not been to preschool, parents of preschool attendees engaged in more kindergarten transition activities; used more parent programs, services, and supports; engaged in more weekly family activities (including reading with their child); and reported more interpersonal support for their parenting needs.

# PART 3
# Transitions to Kindergarten

**Contents of this Chapter:**

What types of information do families receive to help with the transition into kindergarten? In what types of activities do they engage prior to their child's entry into school? This section first describes these preparations for kindergarten and then examines the results of these efforts by reporting teachers' perceptions of the quality of children's transitions to school, including whether students' transitions were smooth, whether they were nervous at school, how often they participated in the classroom, and how much they enjoyed school.

**Key Findings:**

*Information Provided to Families*

- Preschool/child care providers were a primary source of information about the transition to kindergarten for parents.
- Sixteen percent of parents reported that they did not receive information from teachers or others about how and when to register their child for school. In addition, about one fourth of parents did not receive information about their own child's readiness for school or general information about how to develop skills children need for kindergarten.
- Low-income families and families in which the mother had no education beyond high school were less likely to report having information about how to help children develop readiness skills.

*Families' Transition Activities*

- About three-fourths of parents visited school with their child prior to kindergarten. Most also worked on school skills with their child and had attended a parent meeting or orientation.
- On average, parents had engaged in about four transition activities out of a list of 10 possible activities. Five percent of parents had not done any of the 10 activities to prepare their child for kindergarten.

*Children's Transitions to Kindergarten*

- Most children were reported by their teachers to have had smooth transitions into school across a set of four transition measures that asked about the smoothness of their transition, how nervous they were, their participation levels in class, and their enjoyment of school.
- Better school transitions were associated with being older and not having special needs.
- Students who were English Learners tended to participate less in the first few weeks of class than students proficient in English; however, this was true only for English Learners who were in monolingual English kindergarten classrooms and not those in bilingual classrooms.

# Transitions to Kindergarten

## Section Overview

What types of information do families receive to help with the transition into kindergarten? In what types of activities do they engage prior to their child's entry into school? This section first describes these preparations for kindergarten and then examines the results of these efforts by reporting teachers' perceptions of the quality of children's transitions to school, including whether students' transitions were smooth, whether they were nervous at school, how often they participated in the classroom, and how much they enjoyed school.

## Families' Exposure to Kindergarten Information and Opportunities

On the *Parent Information Form*, parents were asked about the types and sources of information and opportunities they received to better prepare their child for entering kindergarten. The figure that follows shows that not all parents are receiving information about how and when to register their child for kindergarten (84% did in this sample), and more than one-fourth (27%) did not receive information about how ready their child was for school. However, the information in the figure does suggest that preschools and child care providers are serving as a good resource for information for parents. Preschools and child care providers were the primary source for the majority of parents for general information about how to develop skills children need for kindergarten, as well as specific information about their own child's readiness levels.

Figure 47. **Receipt of Information or Opportunities Related to Kindergarten Transition**

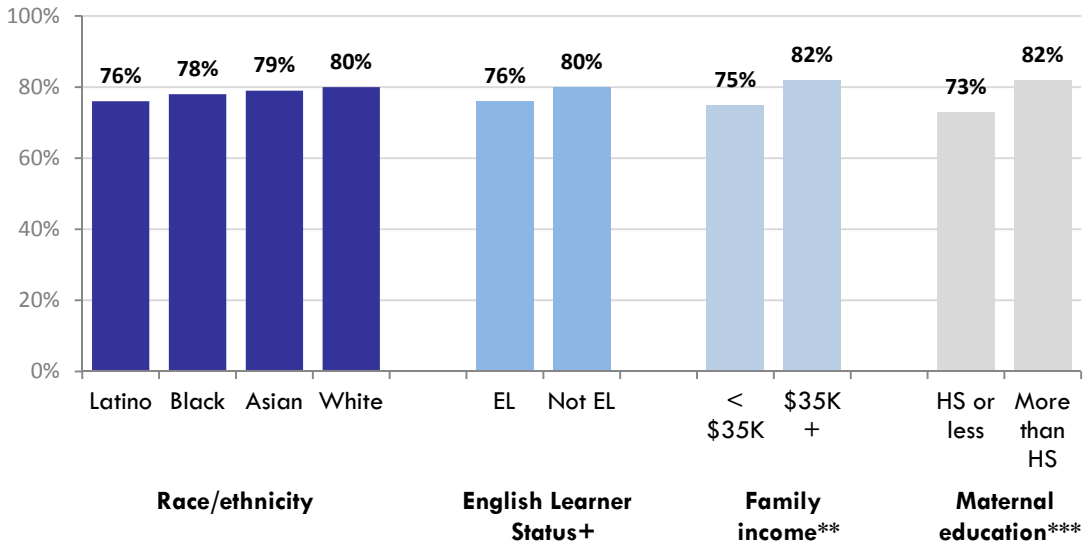
| Type of information/opportunity | Percent who received | Among those who received it, percent who got it from… | | |
|---|---|---|---|---|
| | | Preschool/ Child care provider | Elementary school | Another source |
| General information about how to develop skills children need for kindergarten | 78% | 71% | 22% | 16% |
| Specific information about readiness of own child | 73% | 75% | 17% | 10% |
| General information about child development and parenting | 69% | 54% | 13% | 40% |
| Information about how and when to register child for school | 84% | 45% | 43% | 19% |

Source: Parent Information Form (2011).

Note: Percentages who received information/ opportunities are based on the following sample sizes: 1,262, 1,249, 1,201, and 1,251. Percentages for the different sources of information are based on families who indicated that they did receive a particular type of information. Parents could choose multiple sources of information.

Are there differences in which families receive information to help them prepare their child for school? The following figure shows the percentage of families with different characteristics who reported receiving general information about how to develop the skills that children need for kindergarten. As the figure shows, there were no differences based on race or ethnicity, but families of students who were learning English were marginally less likely to have received readiness information, and there were larger (and statistically significant) gaps in receipt of readiness information based on income and maternal education levels.

Figure 48. **Who Is Getting Readiness Information?**




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

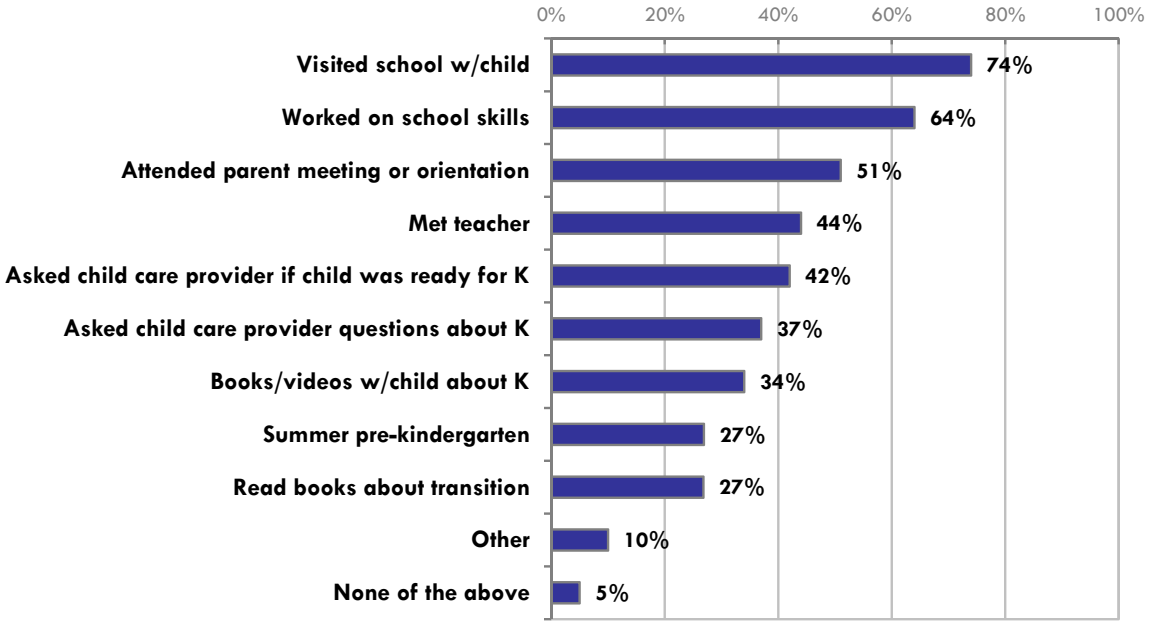
Note: Percentages are based on 583 Hispanic/ Latino students, 132 Asian students, 95 African American students, and 253 Caucasian students; 631 EL students, 623 not EL students; 531 low income students, 629 non-low-income students; 481 low maternal education, 732 high maternal education. Group comparisons differed marginally or significantly according to chi-square tests, as follows: + p < .10; * p < .05; ** p < .01; *** p < .001.

## Parents' Engagement in Transition Activities

Parents were asked to report on which of 10 possible kindergarten transition activities they had engaged in prior to the start of school. The figure that follows shows the percentage of parents who indicated that they had helped their child get ready for school in the listed ways.

About three-fourths of parents (74%) had visited their child's school with them. Sixty-four percent had worked on children's school skills and slightly more than half had attended a parent meeting or orientation (51%). In all, parents had engaged in about four transition activities, on average, out of 10 possible (mean = 4.01), with five percent of parents indicating that they had done none of these activities.

Figure 49. **Percentage of Parents Engaging in Transition Activities**




Source: Parent Information Form (2011).

Note: Percentages are based on 1,311 parents.

## Smoothness of Students' Transitions

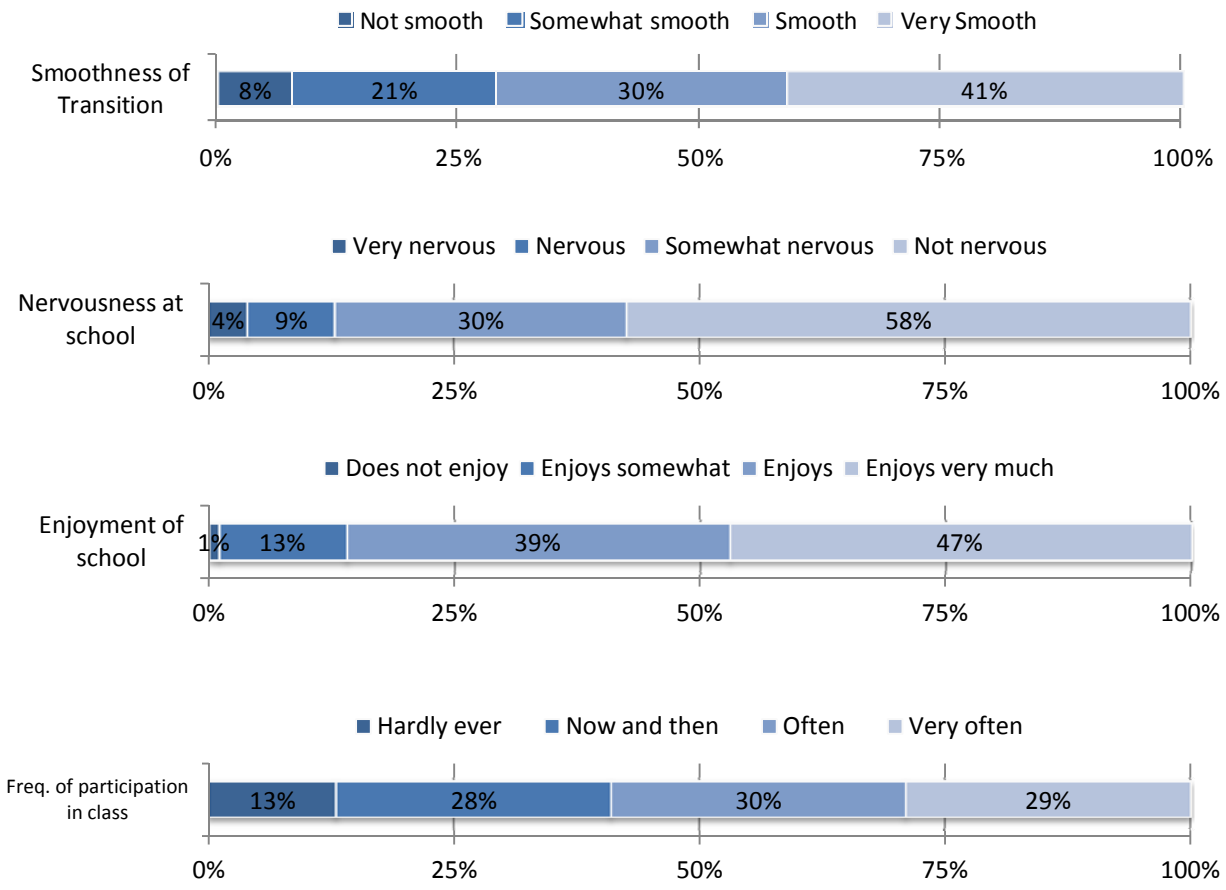
To learn more about how well children transitioned into kindergarten, teachers were asked to complete the *Kindergarten Observation Form II* (*KOF II*) once they had finished their assessments of students' skills on the *KOF I*. To complement the measurable skills that students possessed upon kindergarten entry, the *KOF II* tapped into students' progress in adjusting to the new demands of school life. Teachers provided information on four dimensions of students' school transitions, including the following:

- The smoothness of each student's transition into school
- How nervous each student seemed at school

- How often each student participated in class discussions
- How much each student seemed to enjoy school

Results revealed that most students experienced a "smooth" or "very smooth" transition to school (30% and 41% of students, respectively). However, eight percent did not have a smooth transition. Teachers characterized 58 percent of students as not nervous at school, with the rest showing some amount of nervousness, ranging from being "somewhat nervous" (30%) to "very nervous" (4%). Fifty-nine percent of students participated "often" or "very often" at school, but some children were quiet in class; 13 percent "hardly ever" participated. Nearly half (47%) of students were seen by teachers as enjoying school "very much," and only one percent were seen as not enjoying school at all.

Figure 50. **Students' Transitions into Kindergarten**




Source: Kindergarten Observation Form II (2011).

Note: Sample sizes are as follows (from top to bottom): 1,562, 1,560, 1,556, and 1,543.

Which children experienced easier transitions to school? The figure on the following page shows the correlations between several key child variables and the four transition measures. Older children tended to experience better transitions into kindergarten, as did children without special needs. Preschool experience was related to participation in class and a slightly smoother transition. Girls were somewhat more likely to have a smooth transition and seemed to enjoy school a bit more than boys.

The figure also demonstrates that the strongest association between transition experiences and child characteristics occurs for children's English Learner status. Children who were English Learners were much less likely to be participating in the early weeks of class than their English-proficient peers. To better understand this finding, analyses were conducted to look at these associations separately for students in bilingual classrooms versus monolingual (English) classrooms. Results showed that English Learners had lower participation levels than English-proficient peers only in the monolingual English classrooms. In bilingual classrooms, the English Learners' participation levels were the same as those of the small number of English-proficient peers who were in bilingual classrooms.

Figure 51. **Strength of Correlations between Various Child Characteristics and Smooth Kindergarten Transitions**

| Child characteristics | Smoothness | No nervousness | Participation | Enjoyment |
|---|---|---|---|---|
| Being older | .17 | .14 | .14 | .12 |
| Being a girl | .11 | .02 | .05 | .12 |
| Not having special needs | .18 | .15 | .19 | .18 |
| Being proficient in English | .10 | .07 | .23 | .12 |
| Having experience at a licensed preschool or childcare center (e.g., Head Start, State Preschool, private) | .10 | .09 | .10 | .04 |
| Having any summer pre-K experience | .06 | .08 | .01 | .11 |
| Family engaged in more transition activities | .08 | .04 | .11 | .07 |

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

Note: Sample sizes range from 1,289-1,595. Correlations greater than .20 are highlighted in dark blue; correlation between .10 - .199 are highlighted in light blue.

## Section Summary

Although most parents are receiving information to help ensure their child's smooth transition to kindergarten, there are some areas where more information might be needed. For example, about one fourth of parents did not receive information about their own child's readiness for school or how to develop readiness skills children need for kindergarten. Closer examination of different families in the study revealed that children from low-income families or families with lower maternal education levels were less likely to have received general readiness information than other families.

Parents did a variety of things to assist their child in having a smooth transition to school. About three-fourths of parents visited school with their child prior to kindergarten. Most also worked on school skills with their child and attended a parent meeting or orientation. On average, parents had engaged in about four transition activities out of a list of ten possible activities. Five percent of parents had done none of the 10 activities to prepare their child for kindergarten.

Most children were reported by their teachers to have had smooth transitions into school across a set of four transition measures that asked about the smoothness of their transition, how nervous they were, their participation levels in class, and their enjoyment of school. Better school transitions were most broadly associated with being older and not having special needs. Children who were learning English participated less often in the early weeks of class than their English-proficient peers; however, this was true only for English Learners who were in monolingual English kindergarten classrooms and not those in bilingual classrooms.

# PART 4

# School Readiness in Alameda County 2011

**Contents of this Chapter:**

This section presents information on the readiness levels of students entering kindergarten in Fall 2011 in several ways, including the following:

- Children's readiness according to five *National Education Goals Panel* (*NEGP*) readiness skill groups
- Readiness levels according to the *Basic Building Blocks* of readiness, an alternate set of four skill groups that are based on data-driven sorting of the skills
- An item-by-item summary of all 24 readiness skills measured by the *Kindergarten Observation Form I (KOF I)* and how children's age relates to proficiency levels on the 24 items
- Readiness levels in the context of different benchmarks, including teachers' expectations and recent research using readiness scores on the *KOF I* to predict third grade success
- Parents' perceptions of their children's general readiness levels

**Key Findings:**

- Children's overall readiness in 2011 was well above the "In progress" level; their average readiness score was 3.26 on a four-point scale where four was "Proficient."
- Using the readiness framework that corresponds to the *NEGP*, students were most ready in *Cognition & General Knowledge* skills, and they were least ready in *Communication & Language Usage*. According to the *Basic Building Blocks* groupings of skills, children were most ready on their *Self-Care & Motor Skills*, and they were least ready in their *Self-Regulation* skills.
- Across most domains of readiness, students' average proficiency levels exceeded the levels teachers felt they needed to be school-ready. However, in the area of *Self-Regulation* skills, students' average skill levels were below the levels of proficiency teachers felt they needed to be successful in their transition to kindergarten. Slightly more than one in four students' *Self-Regulation* skills (28%) were significantly below the level teachers felt they needed to have at kindergarten entry.
- *Self-Regulation* skills were seen by teachers as being important for students' success, but these skills also require substantial time and are perceived by teachers as difficult to impact.
- Thirty-nine percent of students had proficiency levels in *Kindergarten Academics* and *Self-Regulation* skills that have been shown in prior longitudinal research to be most strongly related to third grade proficiency on both ELA and Math CSTs. Comparisons of different types of students showed that the achievement gap is evident even at kindergarten entry. Asian and Caucasian students were about twice as likely as Latino and African American students to have the skill patterns that are most strongly associated with third grade academic proficiency.
- Parents perceived their children to be quite ready for school. Across all types of skills, parents felt their children were more ready for school than did teachers.

# School Readiness in Alameda County – 2011

## Section Overview

There are many ways to characterize children's readiness for school. This section presents information on the readiness levels of students entering kindergarten in Fall 2011 in several ways, including the following:

- Children's readiness according to five *National Education Goals Panel* (*NEGP*) readiness skill groups
- Readiness levels according to the *Basic Building Blocks* of readiness, an alternate set of four skill groups that are based on data-driven sorting of the skills
- An item-by-item summary of all 24 readiness skills measured by the *Kindergarten Observation Form I (KOF I)* and how children's age relates to proficiency levels on the 24 items
- Readiness levels in the context of different benchmarks, including teachers' expectations and recent research using readiness scores on the *KOF I* to predict third grade success
- Parents' perceptions of their children's general readiness levels

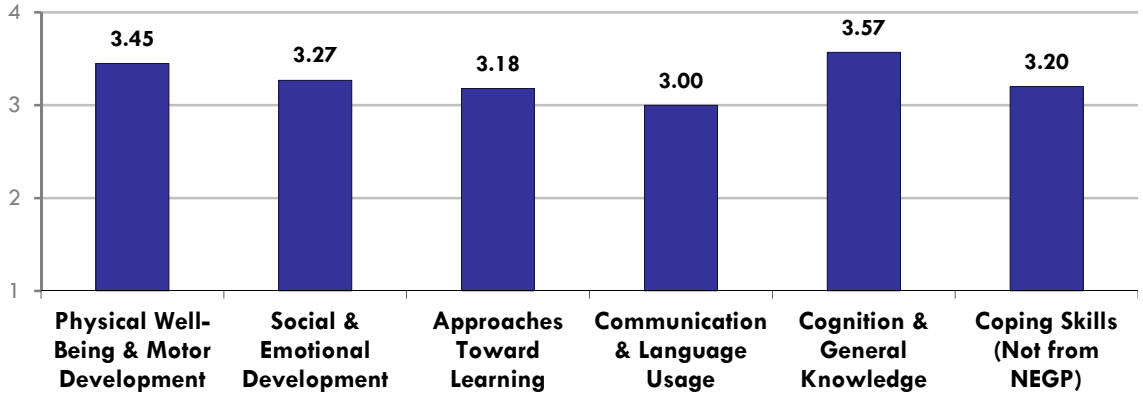
## Readiness According to the *NEGP*

As described in the "Introduction" section of this report, the original version of the *KOF I* sorted (and reported) skills according to five *NEGP* categories, including:

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

The figure that follows uses these *NEGP* readiness dimensions to examine children's readiness scores (plus a newer set of four items reflecting children's coping skills). Children's scores were the lowest on *Communication & Language Usage*; children scored the highest on *Physical Well-Being & Motor Development*.

Figure 52. **Students' Proficiency across the Five *NEGP* Readiness Dimensions**




Source: Kindergarten Observation Form I (2011).

Note: Scores are based on 1,541-1,595 students. Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2= beginning, 3=in progress, 4=proficient.

## Moving from the *NEGP* to the *Basic Building Blocks*

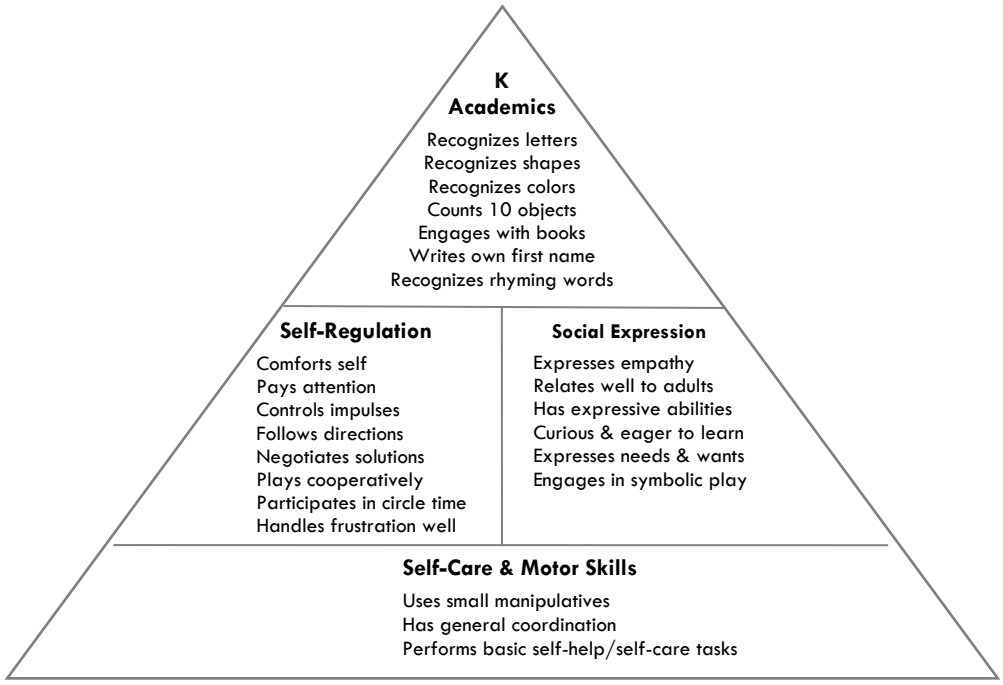
Because the *NEGP* classification system is widely used among many researchers and school readiness experts, descriptions of children's readiness in the *NEGP* framework and language facilitates connections between these data and a larger body of readiness-related interventions and research. However, a more recent data-driven sorting of the skills – based on a statistical procedure called factor analysis that has been conducted on multiple years of assessment data – has shown that the underlying dimensions of readiness on the *KOF I* are actually better represented by four skill groups that have been labeled the *Basic Building Blocks* of readiness. This way of classifying the readiness skills has been used more recently both because it is data-driven and because it has an intuitive appeal; school readiness experts and practitioners have responded very positively to these groups and support their use to advance discussions about how to define and address school readiness issues.

The sorting of the 24 readiness skills into these four dimensions is shown in the figure that follows. As the figure shows, the *Basic Building Blocks* include the following components: *Self-Care & Motor Skills, Self-Regulation, Social Expression,* and *Kindergarten Academics*. Reliability analyses conducted with data collected in this assessment again revealed strong interrelationships among the items within each *Basic Building Blocks*, with Cronbach's alpha coefficients ranging from 0.76 to 0.96:

- *Self-Care & Motor Skills*: Alpha=0.76
- *Self-Regulation*: Alpha=0.96
- *Social Expression*: Alpha=0.94
- *Kindergarten Academics*: Alpha=0.82

Notably, the *Basic Building Blocks* have been represented in the figure below and in previous assessments as a pyramid. Although we strongly believe that all the skill dimensions are essential components of readiness, the pyramid representation has been deliberately chosen to suggest a framework of skill progression. Basic skills related to taking care of oneself are the foundation, upon which rest key social-emotional component of readiness. The apex of the pyramid contains the beginnings of the more academically-oriented skills that will in turn provide children with a foundation for the content covered in kindergarten and beyond.

Figure 53. **Basic Building Blocks of Readiness**




A summary table on the next page provides a "crosswalking" of skills across the two different sorting methods. Each of the 24 readiness items is shown according to which of the five *NEGP* dimensions of readiness it sorts into, as well as in which one of the four *Basic Building Blocks* of readiness it belongs.

The *NEGP Physical Well-Being & Motor Development* category maps perfectly onto the *Basic Building Block* dimension of *Self-Care & Motor Skills*. *Approaches to Learning* skills mostly sort into the *Self-Regulation* skills in the *Basic Building Blocks* (with one skill going into *Social Expression),* whereas *Social & Emotional Development* divides evenly into the *Basic Building Blocks* categories of *Self-Regulation* and *Social Expression. Communication & Language Usage* and *Cognition & General Knowledge* largely map onto the *Kindergarten Academics* dimension, with two skills in the *Social Expression* group.

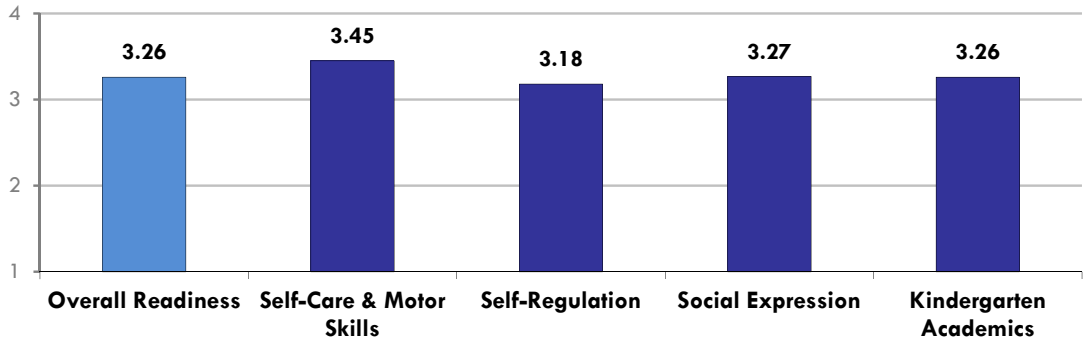
Figure 54. **Crosswalking Readiness Items from NEGP to Basic Building Blocks**

| Skill Items | NEGP Dimensions | Basic Building Blocks |
|---|---|---|
| Uses small manipulatives | Phys Well-Being/Motor Dev | Self-Care & Motor Skills |
| Has general coordination on the playground | Phys Well-Being/Motor Dev | Self-Care & Motor Skills |
| Performs self-help/self-care tasks | Phys Well-Being/Motor Dev | Self-Care & Motor Skills |
| Relates appropriately to adults other than parent/primary caregiver | Social & Emotional Dev | Social Expression |
| Appropriately expresses needs and wants verbally in primary language | Social & Emotional Dev | Social Expression |
| Works and plays cooperatively with peers | Social & Emotional Del | Self-Regulation |
| Controls impulses and self-regulates | Social & Emotional Dev | Self-Regulation |
| Expresses curiosity and eagerness for learning | Approaches to Learning | Social Expression |
| Stays focused/pays attention during activities | Approaches to Learning | Self-Regulation |
| Follows one- to two-step directions | Approaches to Learning | Self-Regulation |
| Participates successfully in circle time | Approaches to Learning | Self-Regulation |
| Has expressive abilities | Communication & Lang | Social Expression |
| Recognizes the letters of the alphabet | Communication & Lang | Kindergarten Academics |
| Writes own name | Communication & Lang | Kindergarten Academics |
| Recognizes rhyming words | Communication & Lang | Kindergarten Academics |
| Engages with books | Communication & Lang | Kindergarten Academics |
| Engages in symbolic/imaginative play | Cognition & Gen'l Knowledge | Social Expression |
| Counts 10 objects correctly | Cognition & Gen'l Knowledge | Kindergarten Academics |
| Recognizes primary colors | Cognition & Gen'l Knowledge | Kindergarten Academics |
| Recognizes primary shapes | Cognition & Gen'l Knowledge | Kindergarten Academics |
| Comforts self using adult guidance when appropriate | N/A | Self-Regulation |
| Negotiates with peers to resolve social conflicts using adult guidance when appropriate | N/A | Self-Regulation |
| Expresses empathy or caring for others | N/A | Social Expression |
| Handles frustration well | N/A | Self-Regulation |

## Proficiency on the *Basic Building Blocks*

The figure that follows displays students' average scores – overall and on each of the four *Basic Building Blocks* dimensions – on a scale ranging from 1 ("Not yet") to 4 ("Proficient"). The figure shows that in 2011, students' overall readiness level was 3.26, which corresponds to a score that is well above the "In progress" level. Students' scores were highest on *Self-Care & Motor Skills,* followed by *Social Expression* and *Kindergarten Academics*. Students were least proficient in their *Self-Regulation* skills, with average scores of 3.18 out of a possible 4.00.

Figure 55. **Students' Proficiency across Four *Basic Building Blocks* of Readiness**



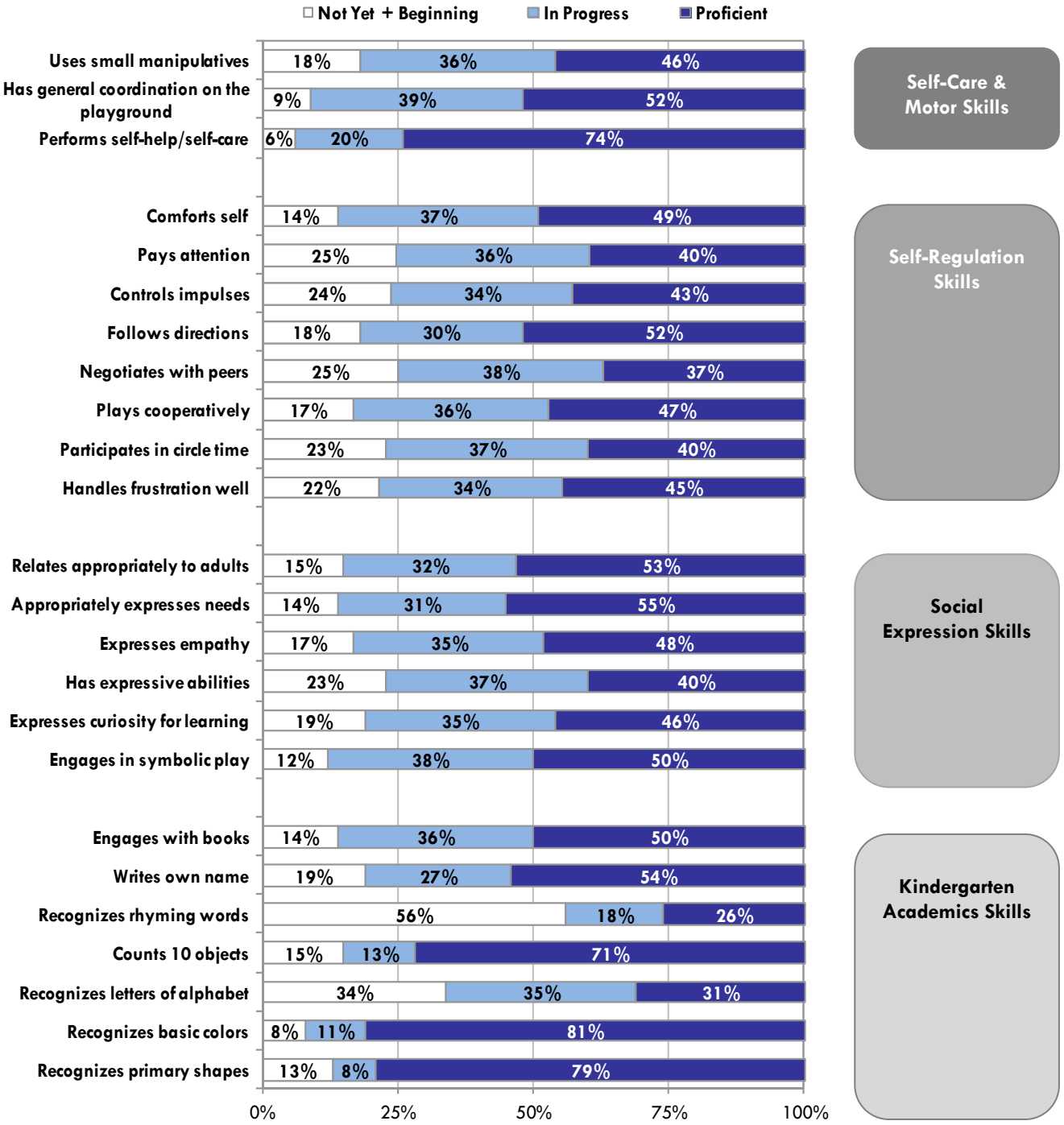

Source: Kindergarten Observation Form I (2011).

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.

## Proficiency Levels for the 24 Readiness Skills

Figure 56 on the following page shows the students' readiness in greater detail; specifically, it shows the percentage of children at each level of readiness on each of the 24 readiness skills.

Figure 56. **Students' Proficiency Levels Across 24 School Readiness Skills**




Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 1,444-1,589 students. Don't know/ Not observed responses are not included. Percentages may not sum to 100 due to rounding. Percentages less than five percent are not labeled.

As the figure below shows, students were most proficient on basic self-help and self-care skills, as well as *Kindergarten Academics* skills related to knowing colors and shapes and counting.

Figure 57. **Students' Top Five Readiness Strengths**

| **Top five strengths** | Basic Building Block | Students' average score (out of 4.00 possible) |
|---|---|---|
| 1. Recognizes basic colors | Kindergarten Academics | 3.72 |
| 2. Performs self-help/self-care | Self-Care & Motor Skills | 3.68 |
| 3. Recognizes primary shapes | Kindergarten Academics | 3.63 |
| 4. Can count 10 objects | Kindergarten Academics | 3.52 |
| 5. General coordination on the playground | Self-Care & Motor Skills | 3.42 |

Source: Kindergarten Observation Form I (2011).

Note: Means are based on 1,444-1,589 students. Don't know/ Not observed responses are not included. Scale points are as follows: 1=not yet, 2= beginning, 3=in progress, 4=proficient.

In contrast, students had the greatest needs in their rhyming skills and their knowledge of letters. They were still developing their *Self-Regulation* skills, including negotiating with peers, controlling impulses, and staying focused.

Figure 58. **Students' Top Five Readiness Challenges**

| **Top five challenges** | Basic Building Block | Students' average score (out of 4.00 possible) |
|---|---|---|
| 1. Recognizes rhyming words | Kindergarten Academics | 2.34 |
| 2. Recognizes letters of the alphabet | Kindergarten Academics | 2.92 |
| 3. Negotiates with peers to resolve conflicts | Self-Regulation | 3.05 |
| 4. Stays focused/pays attention | Self-Regulation | 3.09 |
| 5. Has expressive abilities | Social Expression | 3.09 |

Source: Kindergarten Observation Form I (2011).

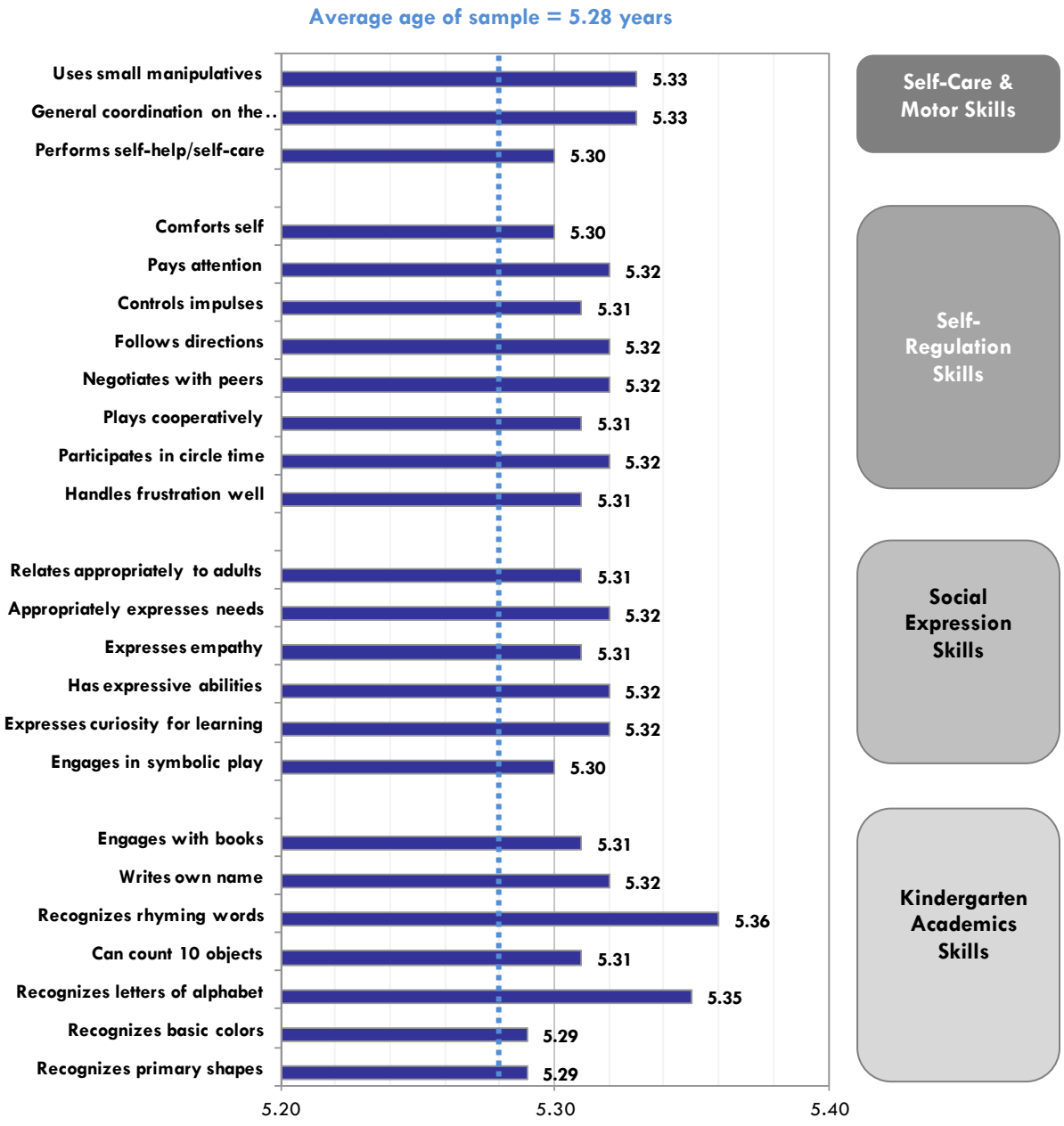
Note: Means are based on 1,444-1,589 students. Don't know/ Not observed responses are not included. Scale points are as follows: 1=not yet, 2= beginning, 3=in progress, 4=proficient.

## Age of Those Reaching Skill Proficiency

All measurements of students' readiness at kindergarten entry show that age is a strong predictor of school readiness; older children tend to be more advanced in their readiness skills than younger children. This section explores the relationship between children's age and their readiness levels in greater detail. The average age of students who were rated as "proficient" on each of the 24 readiness skills was calculated and is shown in Figure 59. Recall that the average age of student in the assessment was 5.28 years; as the figure shows, the average age of those proficient in each readiness skill did not deviate very much from this sample average. In fact, for all but one skill, the average age of those proficient was within one month of the age of the

sample overall. However, because the sample of students has a fairly narrow age range, this difference is still meaningful when looking at significant predictors of readiness. Recognition of rhyming words – considered a "stretch" skill for children in this age group, was the skill that had highest average age of students who were proficient in it – they were just over five years and four months old, on average.

Figure 59. **Average Age of Students Who Were Rated as "Proficient" on Each Readiness Skill**




Source: Kindergarten Observation Form I (2011).

Note: Means are based on 384-1257 students who were rated as "Proficient" on the individual skills.

## Providing a Context for Understanding Children's Readiness Levels

Although knowing students' skill proficiency levels is instructive for understanding the relative strengths and needs of students, there is still some need to contextualize this information to help answer the question, "How ready is 'ready enough' for school?" To provide some additional context for understanding students' readiness levels, this section discusses the readiness levels of students in the assessment using two different benchmarks: (1) teachers' beliefs about how ready students should be to have a successful transition to kindergarten; and (2) recent research looking at the associations between readiness for school and later success on third grade standardized tests.

### Readiness in the Context of Teachers' Beliefs About Proficiency

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. Teachers filled out the *Kindergarten Teacher Survey* after they had completed all of their assessment measures. Part of this form included having teachers provide their opinion about the level at which children should be performing on each of the 24 skills to ensure a smooth transition into school. The following figure shows teachers' average scores for the levels of readiness needed for a successful kindergarten transition for each of the 24 skills. As the figure shows, teachers expected children to be most proficient on skills relating to self-help, expressing needs and wants verbally, knowing colors and shapes, and skills related to *Self-Regulation*. Teachers expected the least proficiency from their students in recognizing rhyming words, recognizing letters of the alphabet, and some expressive skills.

Figure 60. **Teachers' Desired Levels of Proficiency Across 24 Readiness Skills**

| **School Readiness Skills** | Basic Building Block | Overall Scores |
|---|---|---|
| Performs basic self-help/self-care tasks | Self-Care & Motor Skills | 3.89 |
| Appropriately expresses needs and wants verbally in primary language | Social Expression | 3.43 |
| Controls impulses and self-regulates | Self-Regulation | 3.41 |
| Recognizes basic colors | Kindergarten Academics | 3.41 |
| Follows one- to two-step directions | Self-Regulation | 3.33 |
| Recognizes primary shapes (circle, triangle square) | Kindergarten Academics | 3.32 |
| Stays focused/pays attention during activities | Self-Regulation | 3.30 |
| Handles frustration well | Self-Regulation | 3.27 |
| Relates appropriately to adults other than parent/primary caregiver | Social Expression | 3.25 |
| Comforts self using adult guidance when appropriate | Self-Regulation | 3.24 |
| Works and plays cooperatively with peers | Self-Regulation | 3.24 |
| Writes own first name | Kindergarten Academics | 3.22 |
| Participates successfully in circle time | Self-Regulation | 3.22 |

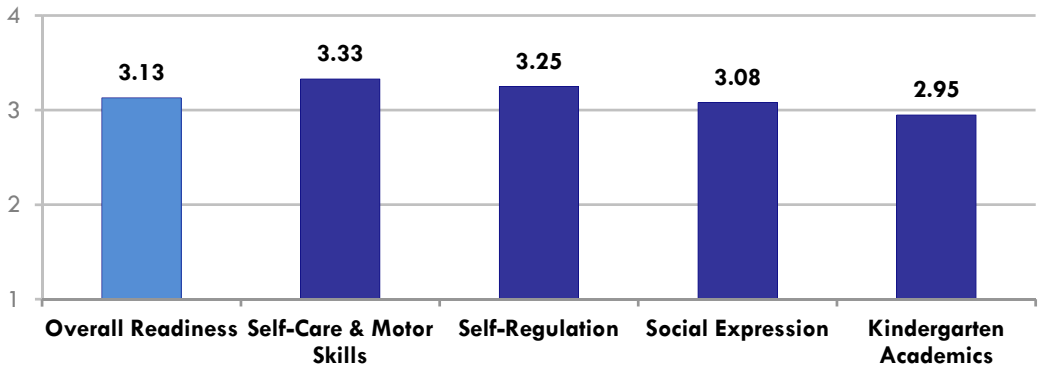
| School Readiness Skills | Basic Building Block | Overall Scores |
|---|---|---|
| Uses small manipulatives | Self-Care & Motor Skills | 3.15 |
| Expresses curiosity and eagerness for learning | Social Expression | 3.06 |
| Engages in symbolic /imaginative play with self or peers | Social Expression | 3.03 |
| Counts 10 objects correctly | Kindergarten Academics | 3.02 |
| Negotiates with peers to resolve social conflicts using adult guidance when appropriate | Self-Regulation | 2.98 |
| Engages with books | Kindergarten Academics | 2.98 |
| Has general coordination on playground | Self-Care & Motor Skills | 2.94 |
| Expresses empathy or caring for others | Social Expression | 2.92 |
| Has expressive abilities | Social Expression | 2.76 |
| Recognizes letters of the alphabet | Kindergarten Academics | 2.67 |
| Recognizes rhyming words | Kindergarten Academics | 1.96 |

Source: Teacher Survey on Importance of Readiness Skills (2011).

Note: Scores are based on 85-88 teachers. Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=just beginning, 3=in progress, 4=proficient.

Teacher ratings of expected proficiency were then summarized overall and for each of the four *Basic Building Blocks* readiness dimensions. On average, teachers felt that students should come into kindergarten with their skills being the most strongly developed in the *Self-Care & Motor Skills* domain. Teachers reported that students needed the least proficiency in their *Kindergarten Academics* skills.

Figure 61. **Average Readiness Levels That Teachers Believed Students Should Have for a Successful Transition to Kindergarten**



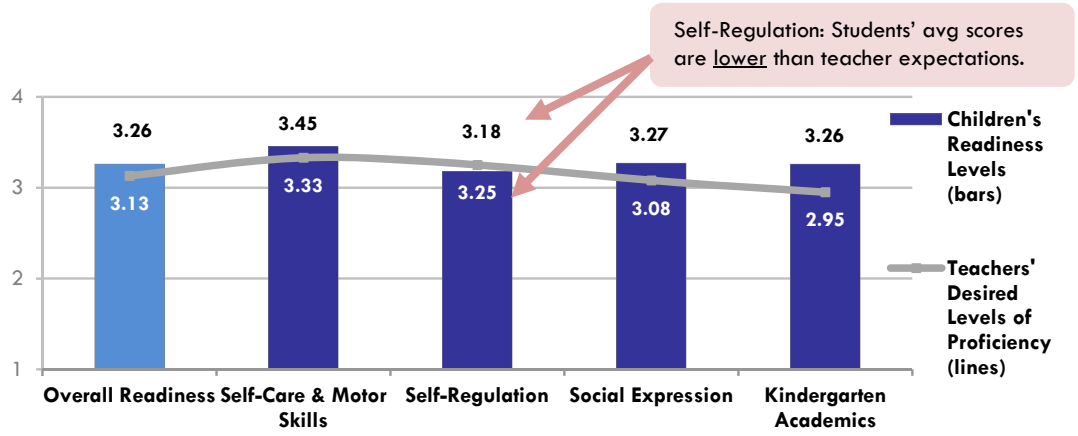

Source: Teacher Survey of the Importance of Readiness Skills (2011).

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

Notably, these expectations do not follow the same pattern as the actual proficiency levels of children; teachers' second highest priority (after *Self-Care & Motor Skills*) is in the area of *Self-Regulation* skills, but this is the skill area in which students have the lowest scores, on average

Figure 62 maps students' observed skill levels on the *Basic Building Blocks* against their teachers' expectations about what their level of proficiency they needed to be school-ready; the bars show students' skill levels and the lines indicate teachers' expectations. As the figure shows, students' average scores exceeded teachers' average skill expectations across all domains of readiness, except in *Self-Regulation* skills; in this domain, students' skill levels were slightly lower on average than what teachers believed they should be for a successful transition to kindergarten.

Figure 62. **Students' Skill Levels in the Context of Teacher Expectations**



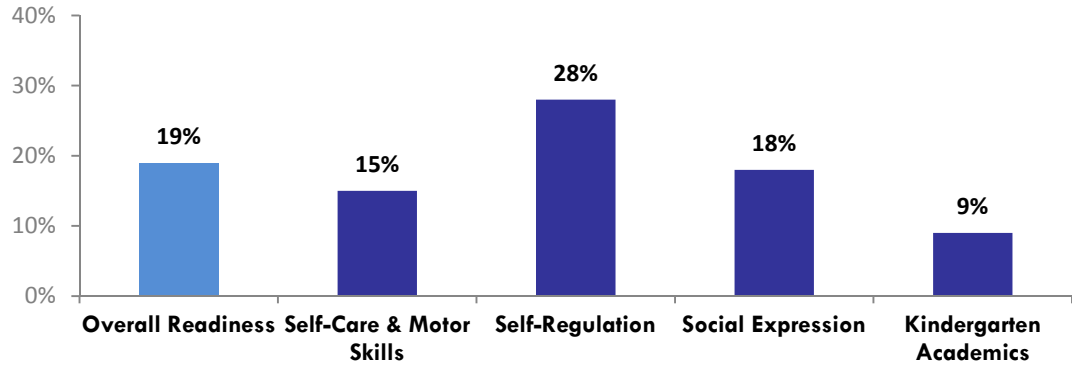

Source: Kindergarten Observation Form I (2011) and Teacher Survey of the Importance of Readiness Skills (2011).

Note: Scores are based on 1,586-1,595 students and 85-88 teachers. Scale points are as follows: 1=not yet, 2= beginning, 3=in progress, 4=proficient.

Of course, this does not mean that all students were meeting or exceeding the levels of proficiency their teachers felt they should have for a successful school start, and there were some students who were far below these levels. To identify how many students were performing far below the level their teachers felt was needed to be school-ready, children were flagged if their readiness score in each *Basic Building Block* was more than one standard deviation below teachers' desired proficiency levels. (This pulls out only those students whose performance was much lower than what teachers think it needs to be in order to be successful in school.)

The figure that follows shows the percentage of students performing far below teacher expectations in each of the *Basic Building Blocks*. When all skills are taken together, about one in five students (19%) had skill levels that were significantly below teachers' expectations overall. In *Self-Regulation* skills specifically, more than one in four students (28%) was performing far below teacher expectations. The smallest percentage of students performing far below teachers' expectations occurred in the domain of *Kindergarten Academics* (9% of students).

Figure 63. **Percentage of Students Significantly Below Teachers' Proficiency Expectations**




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

Note: Means are based on 1,586-1,595 students.

## Students' Skill Levels in the Context of Teacher Priorities

In addition to teachers indicating the levels of proficiency they believed children should have in order to successfully transition to kindergarten, teachers also reported the following:

- Which five readiness skills they considered to be most important to ensure a smooth transition into kindergarten
- Which five readiness skills were easiest to impact during the course of the school year
- On which five skills they spent most of their time during the school year

When teachers were asked to choose only five skills that they believed were most important for entry into kindergarten, skills from all four dimensions of readiness emerged as the most crucial for children to possess. The following figure displays the skills most frequently identified as being important for kindergarten entry (for a complete listing of teachers' selections, please refer to Appendix 7). The most important skill – selected by 75 percent of teachers – was children's ability to perform basic self-help/self-care tasks. This skill was also one of the greatest readiness strength of students in this sample (average score=3.68).

Figure 64. **Skills Most Often Selected by Teachers as One of Five Most Important for Kindergarten Entry**

| **School Readiness Skills** | Basic Building Block | Percent of teachers selecting |
|---|---|---|
| Performs basic self-help/self-care tasks | Self-Care & Motor Skills | 75% |
| Controls impulses and self-regulates | Self-Regulation | 63% |
| Stays focused/pays attention during activities | Self-Regulation | 51% |
| Appropriately expresses needs and wants verbally in primary language | Social Expression | 35% |
| Writes own first name | Kindergarten Academics | 34% |

Source: Teacher Survey on Importance of Readiness Skills (2011).

Note: Scores are based on 88 teachers.

Teachers also chose five skills that they believed to be the easiest for them to impact during the kindergarten year. Four of the five most commonly selected skills were from the *Kindergarten Academics* dimension. The fifth – using small manipulatives – came from the *Self-Care & Motor Skills* readiness domain.

Figure 65. **Skills Most Often Selected by Teachers as One of Five Easiest to Impact**

| School Readiness Skills | Basic Building Block | Percent of teachers selecting |
|---|---|---|
| Recognizes basic colors | Kindergarten Academics | 56% |
| Counts 10 objects correctly | Kindergarten Academics | 48% |
| Engages with books | Kindergarten Academics | 47% |
| Uses small manipulatives | Self-Care & Motor Skills | 45% |
| Recognizes primary shapes | Kindergarten Academics | 43% |

Source: Teacher Survey on Importance of Readiness Skills (2011).

Note: Scores are based on 88 teachers. For a complete listing of skills identified as easiest to impact, see Appendix 7.

Finally, teachers prioritized the five skills on which they spent the most class time. All but one of these skills – recognizing letters of the alphabet – were *Self-Regulation* skills.

Figure 66. **Skills Most Often Selected by Teachers as One of Five on Which They Spend the Most Time**

| School Readiness Skills | Basic Building Block | Percent of teachers selecting |
|---|---|---|
| Recognizes letters of the alphabet | Kindergarten Academics | 72% |
| Stays focused/pays attention during activities | Self-Regulation | 61% |
| Negotiates with peers to resolve social conflicts | Self-Regulation | 38% |
| Controls impulses and self-regulates | Self-Regulation | 37% |
| Recognizes rhyming words | Self-Regulation | 35% |

Source: Teacher Survey on Importance of Readiness Skills (2011).

Note: Scores are based on 79 teachers. For a complete listing of skills identified as requiring the most time, see Appendix 7.

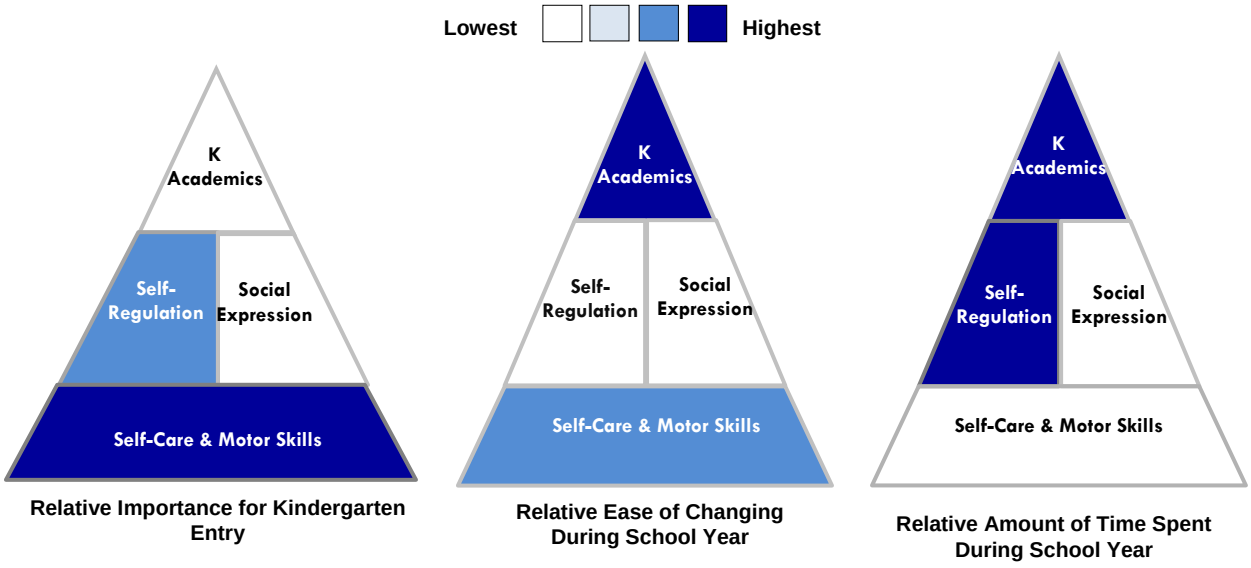
To provide a broader view of teachers' differing priorities, the *Basic Building Blocks* pyramids shown in the following figure are shaded to indicate how the domains are prioritized by teachers. Darker shading is used to highlight dimensions on which teachers placed a higher priority, whereas lighter shading is used to show dimensions on which teachers placed less of a priority. The story told by these pyramids is generally consistent with findings from previous regional assessments. Specifically:

- When thinking about which readiness skills are most important to kindergarten entry, teachers placed the highest importance on *Self-Care & Motor Skills*, followed closely by *Self-Regulation* skills. *Social Expression* and *Kindergarten Academics* are generally seen as the least important skills to have mastered at kindergarten entry.

- The skills that teachers felt were easiest to impact were in the *Kindergarten Academics* domain. *Self-Care & Motor Skills* were perceived as the next easiest to impact, followed by skills in the *Self-Regulation* and *Social Expression* domains.

- Teachers reported spending the most classroom time on skills in two domains: *Self-Regulation* and *Kindergarten Academics.* Teachers were least likely to select *Self-Care & Motor Skills* and *Social Expression* skills as those on which they spend the most class time during the kindergarten year.

Figure 67. **Teacher Priorities for Skill Importance, Ease-of-Changing, and Amount of Time Spent**




Source: Teacher Survey on Importance of Readiness Skills (2011).

Note: Ratings were based on 88 teachers. Significant or marginal group differences, according to paired t-tests were as follows: Importance ratings: = Self-Care & Motor Skills > Self-Regulation > (Kindergarten Academics = Social Expression); Ease of Changing ratings: Kindergarten Academics > Self-Care & Motor Skills > (Self-Regulation = Social Expression); Amount of Time Spent ratings: (Self-Regulation = Kindergarten Academics) > (Social Expression= Self-Care & Motor Skills).

## Readiness in the Context of Long-Term Academic Outcomes

The school readiness levels of students in Alameda County may have implications for their later academic success. A recent longitudinal study was conducted linking school readiness levels measured by the *KOF* I in 2004 in Santa Clara County and 2005 in both Santa Clara and San Mateo counties to the standardized test scores of these same students in the spring of their third grade year (i.e., their English-Language Arts [ELA] and Mathematics California Standards Tests [CSTs]). This research showed that the *Kindergarten Academics* and *Self-Regulation* skills that students possessed at the start of kindergarten strongly predicted their academic performance three and a half years later. More specifically, students who had a combination of strong skills in both *Kindergarten Academics* and *Self-Regulation* were particularly likely to be performing at grade level on both their ELA and Math third grade tests. In this longitudinal research:

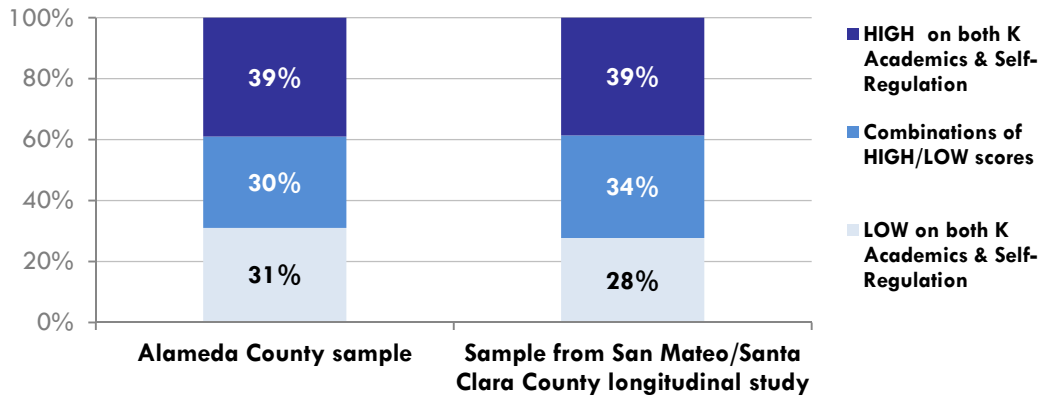
- **Sixty-eight percent** of children who were strong in both the *Kindergarten Academics* and *Self-Regulation* domains of readiness went on to be highly successful in third grade (i.e., they scored at grade level on both their ELA and Math CSTs).
- Only **21 percent** of children who had scores that were low on both *Kindergarten Academics* and *Self-Regulation* skills went on to be highly successful in third grade.

It should be noted that the third grade outcome selected as indicating "success" in this study reflects a fairly high standard – one that is rarely used but is truly indicative of what it means to be successful academically. Typically, the reported statistics separately show students' proficiency on the ELA and Math California Standards Tests, rather than reporting the percentage of students achieving proficiency on both test together. However, it is important that students achieve mastery across both tests, and this is why a combined indicator of ELA and Math CST performance is used to define success.

How many entering kindergarten students in 2011 in Alameda County had the readiness patterns that were most strongly related to third grade success? The figure that follows shows the proportion of children who had each of the combinations of *Kindergarten Academics* and *Self-Regulation* upon entering kindergarten in Alameda County in Fall 2011. As a source of comparison, the proportion of students in the longitudinal study who fell into each of these classifications is shown as well. (These students were from slightly higher family income and maternal education levels than the 2011 Alameda County sample, and they were more likely to be attending higher API schools.)

The figure shows that 39 percent of Alameda County students possessed the combination of *Kindergarten Academics* and *Self-Regulation* skills that is most likely to lead to success on both their third grade standardized tests. Thirty-one percent of students had low scores on both their *Kindergarten Academics* and *Self-Regulation* skills, which, among students in the longitudinal study, meant that they had about a one-in-five chance of performing at grade level on their third grade CSTs. The distribution of skills was very similar for Alameda County students and students from the longitudinal sample.[6]

Figure 68. **Proportion of Students with Readiness Skill Predictive of Third Grade Success**




Sources: Kindergarten Observation Form (2011), (2004), (2005).

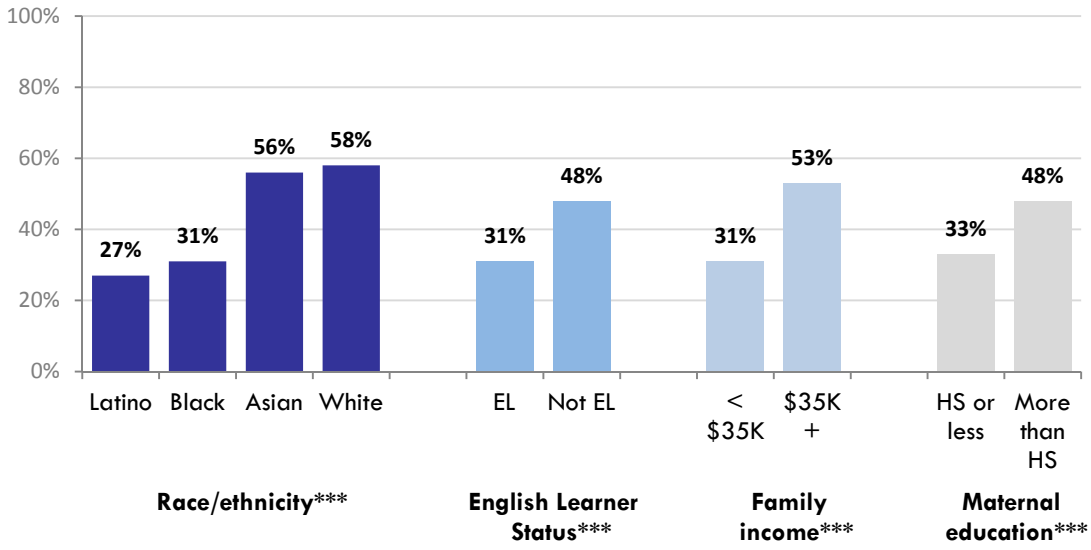
Note: Sample sizes = 1,594 and 1,334, respectively. Percentages may not sum to 100 due to rounding. Students were classified as scoring high on Kindergarten Academics and Self-Regulation skills if they scored above the longitudinal study mean score in these domains.

How do these patterns look for different groups of students? The figure that follows reveals some striking differences in the extent to which students with different backgrounds begin school with the skills they need to help them become successful in their later years of school. Findings are particularly striking when comparing children from different racial and ethnic backgrounds, and these data support the notion that the widely-observed achievement gap in California begins even before students begin school. Asian and Caucasian students are twice as likely as Hispanic/Latino and African American students to have the pattern of skills that are most strongly associated with third grade CST proficiency.

[6] It is important to keep in mind that the longitudinal study was not conducted with students from Alameda County, although they were Bay Area students (San Mateo and Santa Clara counties); in the future, Alameda County hopes to conduct its own study of long-term associations between school readiness and later school success. In addition, even though third grade scores may be associated with children's readiness at kindergarten entry, there are also many other influences that may play into those relationships, including factors related to the districts, schools, classrooms, and teachers that students engage with during their early elementary school grades.

There are also significant disparities between students who are learning English and students proficient in English, low- versus higher-income students, and students whose mothers have low versus higher levels of education. Although a later report section further investigates the predictors of higher readiness using a more precise multivariate approach, the figure underscores the extent to which the pervasive educational disparities seen throughout K-12 education begin to emerge even before students enter school.

Figure 69. **Which Students Possess the Readiness Patterns Most Predictive of Third Grade Success?**




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

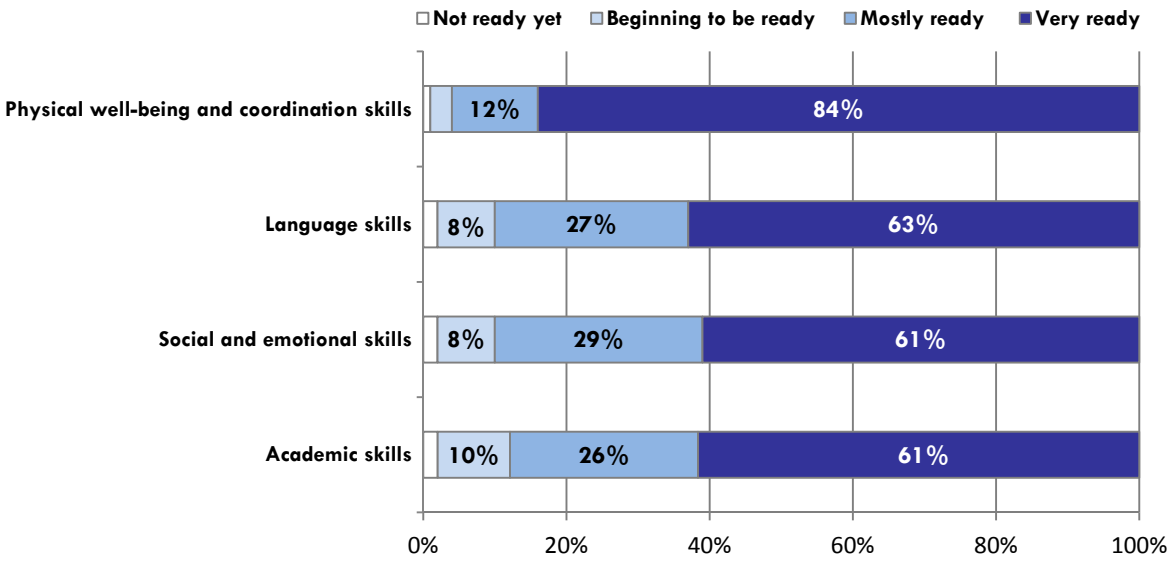
Note: Percentages are based on 776 Hispanic/ Latino students, 155 Asian students, 147 African American students, and 286 Caucasian students; 831 EL students, 753 not EL students; 575 low income students, 638 non-low-income students; 540 low maternal education, 739 high maternal education. All group comparisons differed significantly, according to chi-square tests ($p < .001$).

## Parents' Perceptions of their Children's Readiness

How ready did parents think their children were for school? On a set of four general types of school skills that loosely correlate with the four *Basic Building Blocks* of readiness, parents were asked to indicate what their child's skill level was, with response options that ranged from "not ready yet" to "very ready."

Parents felt very positively about their children's readiness levels, with perceptions that indicated they believed that their children were more ready than did their children's teachers. Parents reported their children being the most ready on physical well-being and coordination skills, and parents felt that children were the least ready on their academic skills.

Figure 70. **Parents' Perceptions of Their Children's Readiness for Kindergarten**




Source: Parent Information Form (2011).

Note: Percentages are based on the following sample sizes (from top to bottom): 1,311, 1,301, 1,300, and 1,304. Percentages less than five percent are not labeled.

## Section Summary

Children's overall readiness in 2011 was well above the "In progress" level; their average readiness score was 3.26 on a one to four scale where four was "Proficient." Using the readiness framework that corresponds to the *NEGP*, students were most ready in *Cognition & General Knowledge* skills, and they were least ready in *Communication & Language Usage. A*ccording to the *Basic Building Blocks* groupings of skills, children were most ready on their *Self-Care & Motor Skills*, and they were least ready in their *Self-Regulation* skills.

How ready is "ready enough" for school? To better understand students' readiness levels in the context of their ability to be successful in school, students' skill proficiency levels were compared to the levels of proficiency that their teachers had indicated were necessary for a successful school transition. Across most domains of readiness, students' average proficiency levels exceeded the levels teachers felt they needed to be school-ready. However, in the area of Self-Regulation skills, students' average skill levels were below the levels of proficiency teachers felt they needed to be successful in their transition to kindergarten. In fact, 28 percent of students had *Self-Regulation* skill levels that were significantly below the level their teachers felt they needed to have at kindergarten entry.

When teachers were asked to describe the relative importance, time spent on, and ability to impact different readiness skills, a dilemma with *Self-Regulation* skills emerged that has been replicated across many readiness studies in Alameda County as well as in other regions. When teachers chose the skills they felt were most important for kindergarten entry, the foundational *Self-Care & Motor Skills* were seen as the most important, followed closely by *Self-Regulation*

skills. *Self-Regulation* skills were also the skills that teachers spent the most time on during the school year, along with *Kindergarten Academics*. *Self-Regulation* and *Social Expression* skills together were seen as the most difficult to impact during the school year. In short, *Self-Regulation* is seen by teachers as being important for students' success, but these skills also require substantial time and are perceived by teachers as difficult to impact.

Alameda County students' readiness levels were also examined in the context of recent research linking readiness to third grade outcomes. Findings from this research revealed that students who had a combination of strong skills in both Kindergarten Academics and Self-Regulation were particularly likely to perform at grade level on both their third grade English-Language Arts and Mathematics California Standards Tests (CSTs). Based on extrapolations from the findings of the longitudinal study, 39 percent of Alameda County students had the combination of skills that were most strongly linked to performing at grade level on both sets of third grade CSTs. Comparisons of different types of students showed that the achievement gap is evident even at kindergarten entry. Asian and Caucasian students were about twice as likely as Latino and African American students to have the skill patterns that are most strongly associated with third grade academic proficiency.

# PART 5
# Identifying Portraits of Readiness

**Contents of this Chapter:**

The previous section provided a broad picture of children's strengths and challenges as they enter kindergarten. However, as any kindergarten teacher well knows, two children can have very different profiles of strengths and needs, even if they enter school with the same average levels of readiness. Whereas one child may be strong in their social-emotional skills but weaker in the academic skills, another child can have exactly the opposite skill pattern.

In an effort to better describe the diversity of children entering school, ASR used a technique called cluster analysis to identify common groupings of children based on their patterns of readiness strengths and needs across the *Basic Building Blocks*. This section describes four common readiness patterns – called the *Readiness Portraits* – and takes a closer look at the characteristics of children who enter school with each readiness profile.

**Key Findings:**

*Portraits of Readiness*

- About half of the students (51%) had readiness profiles showing they were *Strong in all domains* (e.g. *Self-Care & Motor Skills, Self-Regulation, Social Expression,* and *Kindergarten Academics*), and just under one in ten students (9%) had needs across all readiness domains.
- The rest of the students had mixed patterns of readiness. Thirty-three percent of students were ready on their *Kindergarten Academics* but were lacking some social and emotional skills, whereas the reverse was true for the remaining six percent of students who were *Socially/emotionally strong*, but had needs for development in skills related to *Kindergarten Academics*.

*Factors Associated with Portraits*

- 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 in family activities and interpersonal support for parenting than did parents of students in other *Readiness Portraits*.
- Students who were *Socially/emotionally strong* (and somewhat less so, *Needs in all domains* students) appeared to have greater needs than students in the other portraits. They had low family income and education levels and were less likely to have been to preschool. They tended to have the lowest levels of engagement in family activities at home, use of parent programs and services, and interpersonal support for parenting.

# Identifying Portraits of School Readiness

## Section Overview

The previous section provided a broad picture of children's strengths and challenges as they enter kindergarten, including children's general levels of proficiency, their skills in specific readiness domains, and their readiness levels in the context of what kindergarten teachers think are necessary, as well as what skills are most strongly related to long-term school success.

But as any kindergarten teacher well knows, two children can have very different profiles of strengths and needs, even if they enter school with the same average levels of readiness. Whereas one child may be strong in their social-emotional skills but weaker in the academic skills, another child can have exactly the opposite skill pattern. In an effort to better describe the diversity of children entering school, ASR used a technique called cluster analysis to identify common groupings of children based on their patterns of readiness strengths and needs across the *Basic Building Blocks*. This section describes four common readiness patterns – called the *Readiness Portraits* – and takes a closer look at the characteristics of children who enter school with each readiness profile.

## Background

In 2004, ASR first introduced four *Readiness Portraits* that captured common patterns of readiness strengths and needs among students entering kindergarten. Since 2004, ASR has validated these four readiness profiles across multiple years of readiness studies in Santa Clara County, San Mateo County, San Francisco County, and in the previous two years of assessments in Alameda County.

In analyzing student data from the Alameda County pilot assessment (conducted in Fall 2008), ASR started "from scratch," exploring whether a cluster analysis of Alameda County students' readiness data would yield the same four patterns of student readiness as had been observed in other regions. These analyses confirmed the same four *Readiness Portraits* as those that emerged in other counties. For the 2011 assessment, ASR applied the algorithm derived from the 2008 data to once again sort students into four *Readiness Portraits*, including students whose readiness levels were characterized by the following patterns:

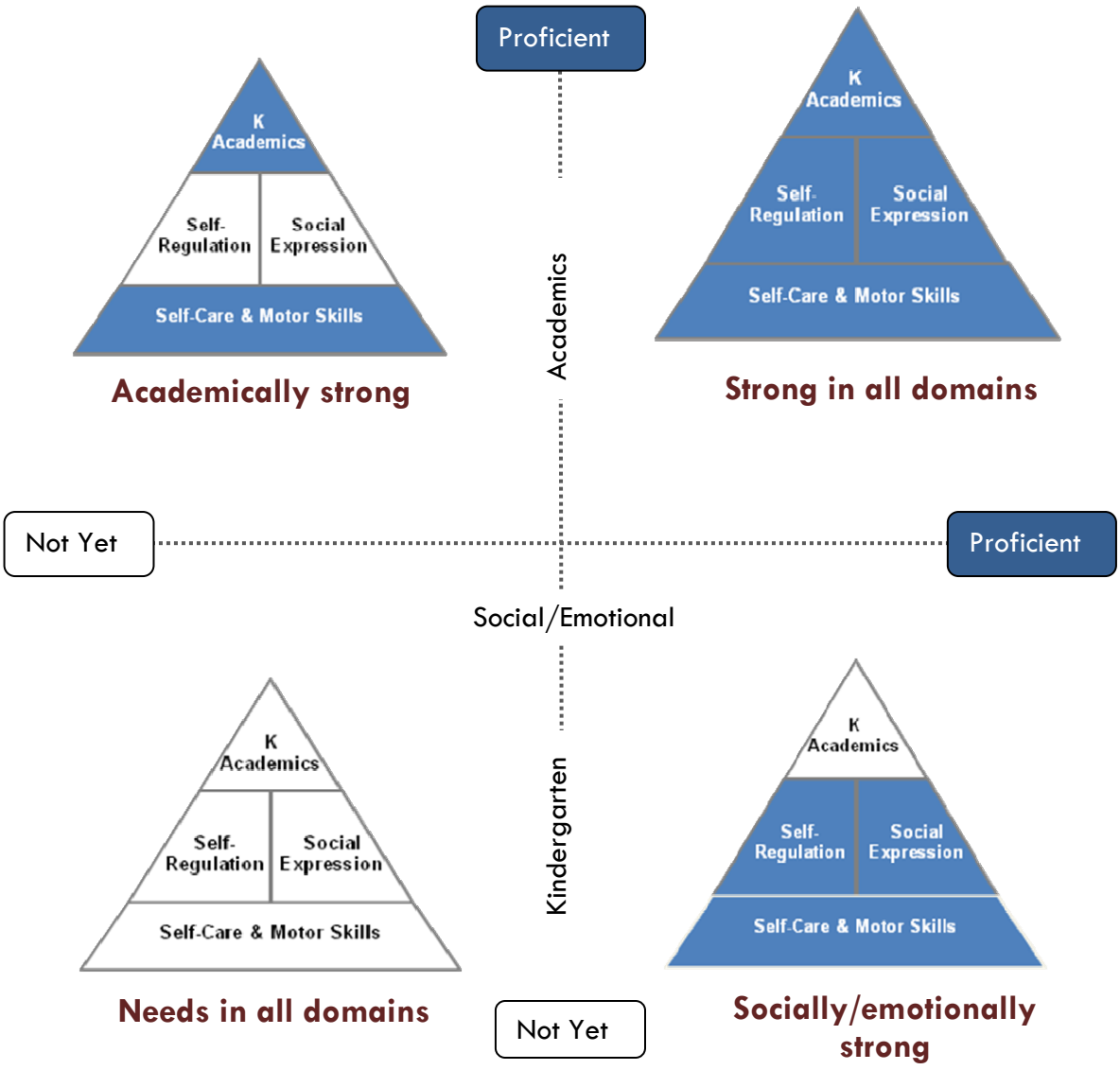
- *Strong in all domains*
- *Needs in all domains*
- *Socially/emotionally strong*
- *Academically strong*

Each portrait reflects a different pattern of developmental strengths and challenges, basic student and family characteristics, and prevalence rates. A complete discussion of the attributes of each portrait follows.

## Proficiency Patterns

The dark shading in the figure below shows where children in each portrait are at or near proficiency on the associated skills. *Strong in all domains* students are ready for kindergarten across all dimensions, whereas *Needs in all domains* students need to catch up across all dimensions. The *Socially/emotionally strong* and *Academically strong* student profiles are proficient in some *Basic Building Blocks* but not others. *Socially/emotionally strong* students are skilled when it comes to the foundational *Self-Care & Motor Skills* and critical social-emotional skills, whereas *Academically strong* students are skilled at the nuts and bolts of learning – the *Kindergarten Academics* (as well as *Self-Care & Motor Skills*) – but have more challenges in the social-emotional arenas.

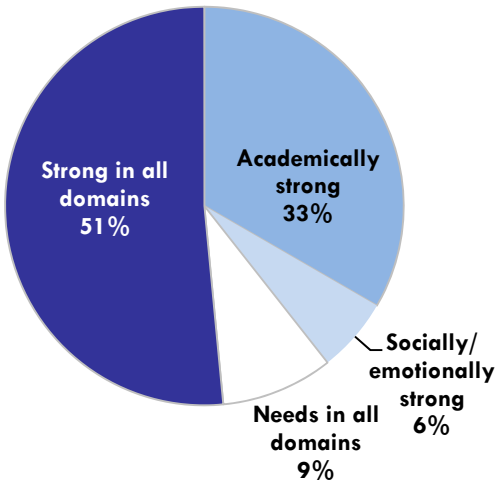
Figure 71. **Four Readiness Portraits**



## Prevalence of the *Readiness Portraits* in Alameda County

In Alameda County in 2011, about half of the sampled students (51%) fell into the *Strong in all domains* profile, entering kindergarten well-rounded across the four dimensions of readiness. One third of new kindergarten students were *Academically strong* students who were solid on their *Kindergarten Academics* skills (and their *Self-Care & Motor Skills*), but who had some needs for development in their social-emotional skills. About six percent of new kindergarten students showed the opposite pattern of readiness; these *Socially/emotionally strong* students were close to proficiency on their *Self-Regulation* and *Social Expression* skills (and *Self-Care & Motor Skills*), but had some needs in the area of *Kindergarten Academics* skills. Finally, nine percent of children sorted into the *Needs in all domains* profile; these children have significant readiness needs across all *Basic Building Blocks.*

Figure 72. **Prevalence of Each Readiness Portrait**




Source: Kindergarten Observation Form I (2011).

Note: This chart is based on 1,583 students.

### Readiness Scores Across the Portraits

Figure 73 shows the *Basic Building Blocks* scores across the *Readiness Portraits*.[7] For each *Basic Building Block*, *Strong in all domains* students had the highest proficiency scores. They possess the skills needed to focus and manage their behavior in the classroom, their expressive skills are on track, and they are familiar with the basics of kindergarten content. In contrast, *Needs in all domains* students may struggle as they enter school. They are just beginning to build skills in all important areas. *Socially/emotionally strong* and *Academically strong* children score in the middle, with *Socially/emotionally strong* exhibiting social-emotional strengths and *Academically strong* exhibiting strengths in *Kindergarten Academics*, although they are not as strong in these skills as students in the *Strong in all domains* portrait.

[7] NEGP scores by *Readiness Portrait* are available in Appendix 9.

Figure 73. **Basic Building Blocks Scores, by Readiness Portrait**

| Basic Building Blocks Scores | Overall | Strong in all domains | Academically strong | Socially/ emotionally strong | Needs in all domains |
|---|---|---|---|---|---|
| *Base sample sizes* | *1,583* | *813* | *521* | *102* | *147* |
| Self-Care & Motor Skills | 3.45 | 3.81 | 3.21 | 3.40 | 2.30 |
| Self-Regulation | 3.18 | 3.73 | 2.70 | 3.17 | 1.80 |
| Social Expression | 3.27 | 3.81 | 2.81 | 3.30 | 1.90 |
| Kindergarten Academics | 3.26 | 3.61 | 3.20 | 2.28 | 2.21 |

Source: Kindergarten Observation Form I (2011).

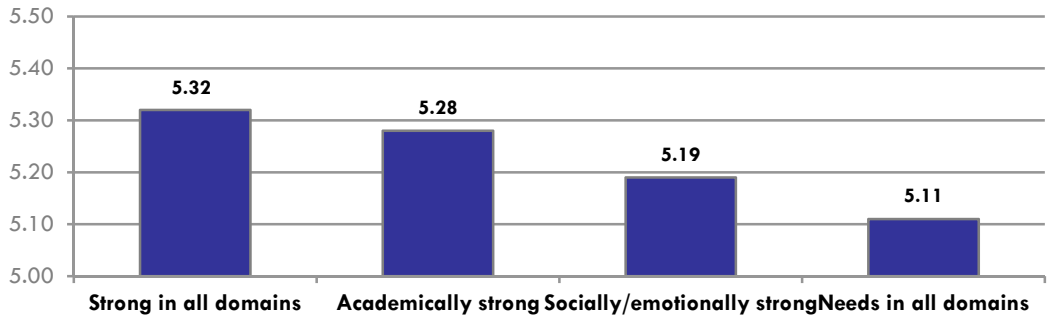
Note: Scale points are as follows: 1=not yet, 2= beginning, 3=in progress, 4=proficient. On all four *Basic Building Blocks*, means for each readiness portrait significantly differed from all other portraits at $p < .001$, according to oneway analyses of variance and follow-up post hoc tests, with one exception: *the Socially/emotionally strong* students and *Needs in all domains* students had similar levels of *Kindergarten Academics.*

## Who Are the Children in Each *Readiness Portrait*?

How do children with a profile of strong readiness across all the skills (*Strong in all domains*) differ from children who had readiness needs across the spectrum of skills (*Needs in all domains*)? This section explores the ways that children from each of the *Readiness Portraits* differed from each other.

As the following figure shows, *Strong in all domains* students were somewhat older than children in the other three readiness portraits. *Academically strong* students were in turn older than the *Socially/emotionally strong* and *Needs in all domains* students. *Needs in all domains* students were significantly younger than students in the other three *Readiness Portraits.*

Figure 74. **Average Age of Students in Each *Readiness Portrait***



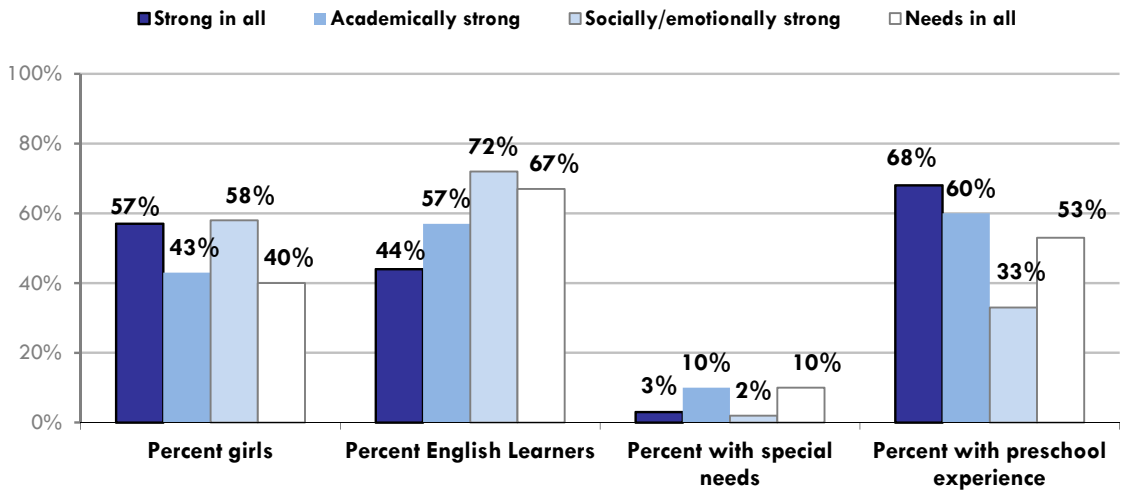

Source: Kindergarten Observation Form I (2011).

Note: Means are based on 806 Strong in all domains, 512 Academically Strong, 100 Socially/Emotionally strong, and 146 Needs in all domains. A oneway analysis of variance indicated that the portraits differed significantly overall ($p < .001$). Post hoc tests revealed the following pattern of group differences: Strong in all domains > Academically strong > (Socially/ emotionally strong > Needs in all domains).

The four *Readiness Portraits* also included different percentages of girls, English Learners, children with special needs, and children with experience in a licensed preschool or childcare center. The ethnic make-up of students in each portrait differed as well. The two figures that follow display the differences in these variables across the four *Readiness Portraits*.

Girls made up more than half of the students in the *Strong in all domains* and *Socially/ emotionally strong* portraits, and comprised less than half of the students in the other two portraits. Although English Learners made up 52 percent of the sample as a whole, they were underrepresented in the *Strong in all domains* portrait and were overrepresented in the other three portraits. Ten percent of students in the *Academically strong* and *Needs in all domains* portraits had special needs, as compared with very small percentages of students with special needs in the other portraits. About two thirds (68%) of *Strong in all domains* students had attended preschool, whereas only one in three *Socially/emotionally strong* students had.

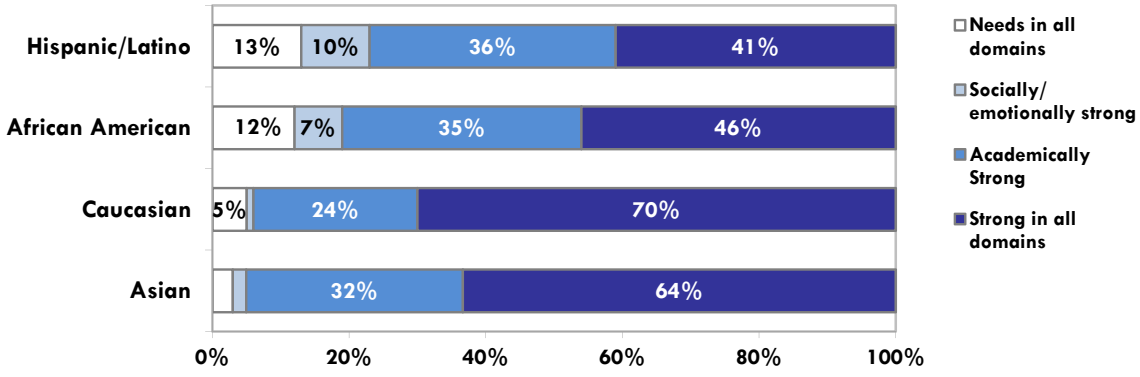
Figure 75. **Student Gender, EL status, Special Needs Status, and Preschool Experience by *Readiness Portrait***




Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 806-810 Strong in all domains, 512-519 Academically strong, 100-102 Socially/emotionally strong, and 146-147 Needs in all domains students. Readiness portrait compositions were significantly different for all four comparisons, according to chi-square tests ($p < .001$).

Figure 76. **Student Race/Ethnicity, by *Readiness Portrait***



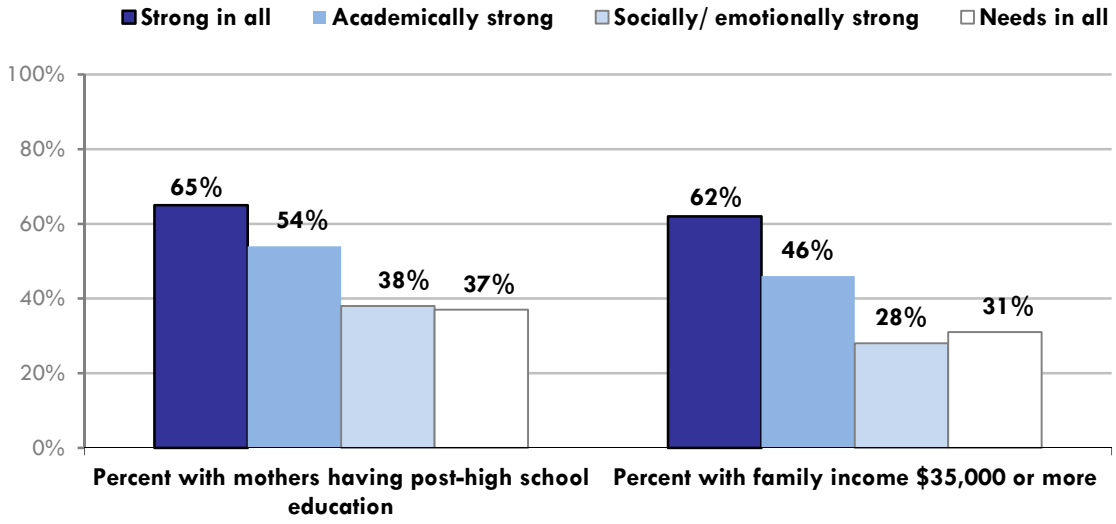

Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 770 Hispanic students, 285 Caucasian/White students, 147 African American students, and 151 Asian students. Percentages may not add up to 100 due to rounding. Percentages less than 5% not labeled. The overall racial/ethnic make-up of the *Readiness Portraits* was significantly different, according to chi-square tests ($p < .001$).

There were large differences across the *Readiness Portraits* in the percentage of students whose mothers had been educated beyond high school. For example, whereas almost two thirds (65%) of the mothers of students from the *Strong in all domains* group had been educated beyond high school, only about 37 and 38 percent of mothers of the *Needs in all domains* and *Socially/emotionally strong* students had this level of education, respectively.

Income levels were also very different across the *Readiness Portraits.* Sixty-two percent of students who were *Strong in all domains* came from families whose incomes were more than $35,000 per year. However, only 31 percent of students in the *Needs in all domains* group and only 28 percent of students from the *Socially/emotionally strong* portrait had family incomes that exceeded $35,000 per year.

Figure 77. **Maternal Education Level and Income, by *Readiness Portrait***




Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 659-689 Strong in all domains, 390-415 Academically strong, 67-71 Socially/emotionally strong, and 88-97 Needs in all domains students. Readiness portrait compositions were significantly different for all four comparisons, according to chi-square tests ($p < .001$).

The family environments of children in the four *Readiness Portraits* were quite different in several ways. Students who were *Strong in all domains* and *Academically strong* tended to be read to more often than *Socially/emotionally strong* students and students with *Needs in all domains*. Parents of *Strong in all domains* students appeared to have strong interpersonal ties; compared to families of children in the other groups, these families engaged in more weekly activities together and had higher levels of interpersonal support for parenting.

Generally, parents of students in the *Socially/emotionally strong* portrait tended to report the lowest levels of engagement and support. In the case of transition activities, these parents reported engaging in significantly fewer kindergarten transition activities than even the parents of students who had *Needs in all domains*. The low rates of preschool attendance rates among these students may play a role in this finding, as preschool is a key source of information and resources on preparing students for the transition to kindergarten.

Figure 78. **Other Family Environment Characteristics, by *Readiness Portrait***

| **Characteristics** | Strong in all domains<br>A | Academically strong<br>B | Socially/ emotionally strong<br>C | Needs in all domains<br>D |
|---|---|---|---|---|
| Percent who are read to daily*** | 27%<br>BCD | 21%<br>Ad | 16%<br>A | 13%<br>Ab |
| Average number of weekly family activities*** | 26.09<br>BCD | 24.60<br>A | 22.93<br>A | 23.30<br>A |
| Number of K transition activities (out of 10 possible) *** | 4.18<br>bC | 3.95<br>AC | 3.01<br>ABD | 3.79<br>C |
| Parent programs, services, supports received (out of 9 possible)** | 2.57<br>Cd | 2.47<br>c | 2.09<br>Ab | 2.22<br>d |
| Parent social support (1 to 4 scale) ** | 3.18<br>BCD | 2.99<br>ACD | 2.71<br>AB | 2.79<br>AB |

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

Note: Percentages are based on 688-699 Strong in all domains, 409-427 Academically strong, 72-75 Socially/emotionally strong, and 100-104 Needs in all domains students. Significant differences according to appropriate statistical tests (chi-square tests or oneway ANOVAs) are indicated as follows: ** $p < .01$; *** $p < .001$. Lower-case letters below the mean scores and percentages signify which means are significantly (upper case) or marginally (lower case) different from one another according to post hoc tests. For example, the "d" beneath the *Academically Strong* percentage for "Percent who are read to daily" (21%) means that this percentage differs marginally ($p < .10$) from the percentage among *Needs in all domains* students (13%; Column D). The upper case "A" in the same cell means the percentage is significantly different from that of the *Strong in all domains* students (27%; Column A).

## Section Summary

Data revealed that about half of students (51%) had readiness profiles showing they were *Strong in all domains*, and almost one in ten students (9%) had needs across all readiness domains. The rest of the students had mixed patterns of readiness. One third of students were ready on their *Kindergarten Academics* but were lacking some social and emotional skills, whereas the reverse was true for the remaining six percent of students who were *Socially/emotionally strong*, but had needs for development in the *Kindergarten Academics* skills.

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*. Students who were *Socially/emotionally strong* (and somewhat less so, *Needs in all domains* students) appeared to have greater needs than students in the other portraits. They had low family income and education levels and were less likely to have been to preschool. They tended to have the lowest levels of engagement in family activities at home, use of parent programs and services, and interpersonal support for parenting.

# PART 6

# Student and Family Factors Associated with School Readiness

**Contents of this Chapter:**

This section discusses the results of regression analyses used to identify which child and family factors were most predictive of children's readiness for school.

**Key Findings:**

*Predictors of Readiness*

- 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 below those of their peers. Follow-up analyses of these students revealed that they tended to come from homes with significant stressors, such as single parent homes and parents who reported greater life concerns and more frequent negative attitudes about parenting. They were not more likely to be low-income, however.

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

- Some significant predictors of readiness in this study point to promising ways that community interventions can make a difference for students. Preschool experience was associated with enhanced readiness (although not in social-emotional readiness domains). Students whose parents who had more positive parenting attitudes were also more ready for school than their peers whose parents reported more frequent negative parenting attitudes.

# Student and Family Factors Associated with School Readiness

## Section Overview

Information about readiness in the previous two report sections has focused on describing what is – the readiness levels of students overall and in different skill domains, readiness in the context of different standards, and different common patterns of readiness strengths and needs among entering students. In these descriptions, some comparisons are included as well, such as looking at which student characteristics are associated with being in a *Strong in all domains* student versus a *Needs in all domains* student. Although this univariate approach – looking at one variable at a time – is critical to understanding which students are more (and less) ready for school, univariate analyses cannot inform us about how several variables interact together to influence readiness scores. To gain a better understanding of the underlying reasons children may be more or less prepared for school, readiness must be examined using a multivariate approach.

This section uses regression analyses to examine the factors that are most strongly associated with enhanced readiness levels **after ironing out differences on a wide range of other family, student, and school-level factors.** This allows us to draw conclusions about which factors are independently associated with readiness — above and beyond their associations with other factors. For example, from the previous report sections, we know that as family incomes increase, so does the likelihood that a child has attended preschool. So, if we find associations between income level and readiness, without a regression analysis it is difficult to know whether higher income or greater likelihood of preschool experience is responsible for those enhanced readiness levels. Regression analysis allows us to look at each of the associations between readiness and each potential predictor while simultaneously taking other factors into account.

Regression analyses produce a set of "beta coefficients." Beta coefficients are a measure of the strength of association between each factor and standardized test scores, over and above all of the other variables in the model. The magnitude of each beta coefficient signals whether the factor in question is strongly or weakly associated with readiness. All coefficients can be compared to one another to determine their relative strengths. A coefficient of .40, for example, is twice as strong as a coefficient of .20.

It is important to keep in mind that regression analyses can provide a glimmer of why children vary, but these are ultimately correlational — not causal — analyses. The only way to truly determine what causes increased readiness is by conducting a well-controlled experiment. It is also important to note that there are likely many other variables that could affect readiness that are beyond the scope of this assessment. Variables like temperament, intelligence, and style of attachment to parents/guardians, for example, are not measured in this study, but may play an important role in children's readiness for school.

## Factors Associated with Overall Readiness

The readiness predictors for Alameda County students that were included in the multivariate analyses were as follows:

- **Child variables:** Child's age at enrollment, gender, special needs status, and English Learner status
- **Family background variables:** Income and maternal education level
- **Child health variables:** Child well-being (frequency of being hungry, tired, or ill), child absences and tardies, low birth weight and having a regular medical provider
- **Family stressors, parenting attitudes, and parenting support:** Index of family risk (including being a teen mother, being a single parent, having lost a job in the last year, having moved frequently since the child was born, and having few parent supports); parenting attitudes; sum of local family resources used (7 possible); parental social support, and an index of life concerns
- **Direct school readiness-related variables:** Preschool attendance, attendance at First 5's Summer Pre-K program, frequency of home reading, sum of kindergarten preparation activities in which parents had engaged (10 possible), parents' receipt of general information about readiness, parents' receipt of specific information about their own child's readiness

In addition, a few variables were added into the regression equation to control for any additional influence they might have on readiness scores. These included the number of days between school start date and observation date, whether children were in a full or half day kindergarten classroom, teachers' experience level, teachers' expectations about the readiness levels children need to be successful, and school API level.

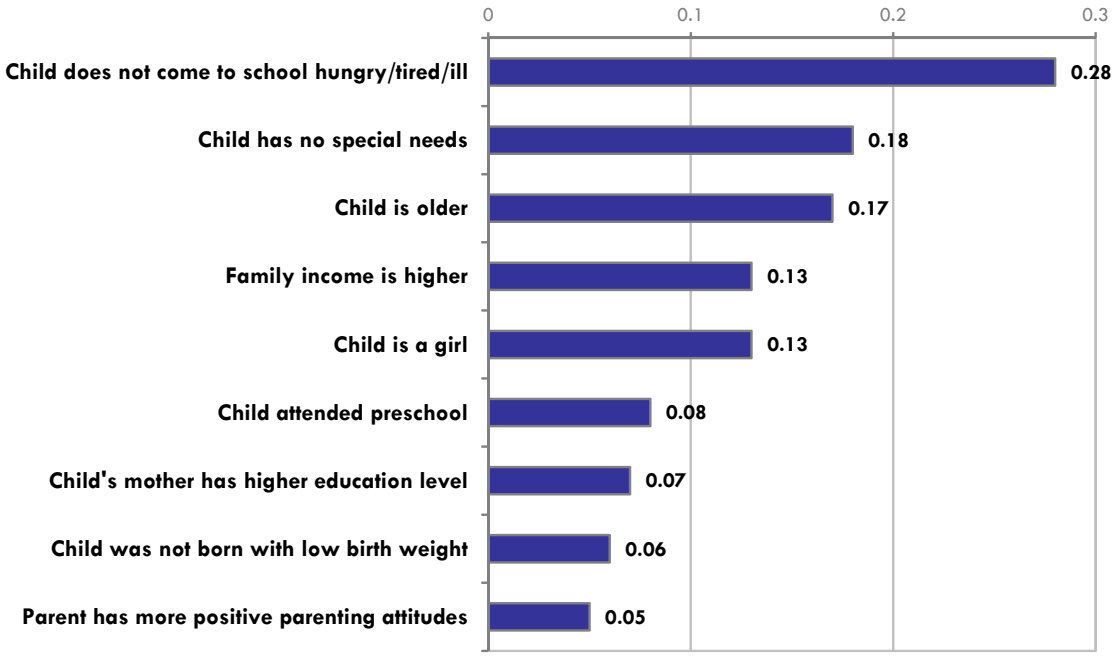
Figure 79 shows the results of this regression analysis; depicted are those factors that are significantly related to overall kindergarten readiness after taking into account all of the other variables. Regression results indicated that nine factors explained 32 percent of children's readiness scores. The strongest predictor of readiness was students' well-being. Although there were relatively few children who had such issues, those who were perceived by their teachers to be frequently hungry, tired, or ill had readiness levels that were much lower than their peers without well-being concerns. In addition, students who did not have special needs were more ready for school than those who did, and there was a small association between being born with a low birth weight and being less prepared than peers at kindergarten entry.

Several demographic and socioeconomic characteristics also emerged as strong predictors of readiness. Older students had higher levels of readiness than younger students, and girls tended to be more ready for school than boys. As incomes and maternal education levels increased, readiness levels of entering students generally did as well.

There were also two predictors of readiness that point to opportunities for potentially fruitful community-level interventions. Students who had attended preschool were more ready for school than students who had not, and students of parents who had more positive attitudes

about parenting – as measured by reports of less frequent experiences of parenting-related negative feelings – had higher readiness levels than students whose parents had more negative parenting attitudes.

Figure 79. **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. $R^2 = .32$).

## Factors Associated with Each *Basic Building Blocks* Dimension of Readiness

The previous figure shows the factors that were associated with overall readiness scores. However, not all of these factors are equally predictive of the different dimensions of readiness. To see how each individual *Basic Building Block* readiness dimension was related to the different factors, ASR performed a regression on each skill dimension, using the same set variables described previously. Figure 80 shows which factors emerged as significant predictors of each *Basic Building Block*. The figure also displays how much of the readiness dimensions were explained by the predictors (as indicated by the $R^2$ and adjusted $R^2$ statistics at the bottom of the table).

Some interesting trends emerge when the significant predictors are compared across the *Basic Building Blocks*. A few variables significantly predict all of the *Basic Building Blocks*, including greater child well-being, not having special needs, and being older. Higher family income was associated with higher readiness scores in all areas except *Self-Care & Motor Skills*, and girls were more ready for school than boys in all skills except *Kindergarten Academics*.

Associations between preschool experience and readiness were statistically significant only in two domains: *Self-Care & Motor Skills* and *Kindergarten Academics*. Preschool experience was

not associated with readiness gains in the social-emotional domains. This is consistent with a recent analysis conducted by the Brookings Institution, using a national sample of kindergarten students (Isaacs, 2012). More generally, studies examining the impact of preschool on these types of outcomes find mixed results, which is likely due to the variety in the quality of different preschool programs and settings.

Figure 80. **Beta Weights of Factors Significantly Associated with the *Basic Building Blocks* of School Readiness**

| Predictors | Overall Readiness | Self-Care & Motor Skills | Self Regulation | Social Expression | Kindergarten Academics |
|---|---|---|---|---|---|
| Is not frequently hungry, tired or ill | .28 | .26 | .31 | .22 | .16 |
| Has no special needs | .18 | .15 | .19 | .20 | .08 |
| Is older | .17 | .18 | .14 | .12 | .16 |
| Higher family income | .13 | | .10 | .10 | .18 |
| Is a girl | .13 | .11 | .17 | .10 | |
| Preschool experience | .08 | .12 | | | .16 |
| Higher maternal education level | .07 | | | | .10 |
| Parent received info about child's readiness | | | | | |
| Not born low birth weight | .06 | .05 | | | .07 |
| Positive parenting attitudes | .05 | | .09 | | |
| Not an English Learner | | .08 | | .10 | .08 |
| More life concerns | | .06 | | | |
| Is not frequently tardy or absent | | | | .08 | |
| Higher levels of interpersonal support for parenting | | | | .06 | .09 |
| Received specific information about child's readiness | | | | | .07 |
| Overall $R^2$/Adjusted $R^2$ | .33/.32 | .26/.24 | .29/.27 | .26/.24 | .32/.31 |

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

Note: Factors with a beta weight listed were significant predictors of readiness when all other variables were simultaneously entered into the model at $p < .01$. The regression models for all the *Basic Building Blocks* and overall readiness were statistically significant at $p < .001$.

## A Closer Look at Children's Well-Being

As these regression results demonstrate, understanding who the children are who might have well-being concerns is important – specifically those who feel hungry, tired, or ill – as these children tend to enter kindergarten with significantly lower readiness levels than their peers. To further explore the characteristics of students who had potential well-being concerns, students who had been identified by teachers as having one or more issues on the items related to being hungry, tired, or ill "on most days" or "just about every day" were compared to students without any such concerns. A total of 55 students (3% of the sample) had one or more well-being "flags" based on these criteria.

The following figure shows how these children differed from their peers. There were several differences in the family characteristics of the children with and without well-being concerns; the pattern of differences suggests that children with such concerns were not necessarily coming from more impoverished households; rather, the findings suggest that their homes and families may be characterized by heightened levels of stress or family strain. For example, compared to children without concerns, the children with well-being concerns were more than twice as likely to come from single-parent households, their parents reported more life concerns, and their parents had somewhat more frequent negative feelings about parenting. They were also more likely to have identified or suspected special needs, and they were somewhat less likely to be English Learners.

Figure 81. **Comparing Students With and Without Teacher-Reported Well-Being Concerns**

| **Child/Family Characteristic** | Students with no well-being concerns | Students with one or more well-being concerns |
|---|---|---|
| Average age | 5.28 | 5.31 |
| Percent who are girls | 51% | 44% |
| Percent with special needs*** | | |
| Formally identified | 5% | 9% |
| Suspected, not yet formally identified | 5% | 22% |
| Percent English Learners+ | 53% | 42% |
| Ethnicity | | |
| Hispanic/Latino | 50% | 44% |
| Asian | 10% | 4% |
| Caucasian | 18% | 20% |
| African American | 9% | 22% |
| Pacific Islander | 2% | 0% |
| Alaskan Native or American Indian | 1% | 0% |
| Multi-racial | 7% | 7% |
| Other | 1% | 0% |
| Mother has no education post high school | 42% | 46% |
| Family income is less than $35,000 | 47% | 54% |
| Type of insurance*** | | |
| Private insurance | 46% | 26% |
| Medi-Cal | 39% | 60% |
| Healthy Families | 11% | 0% |
| None | 3% | 3% |
| Born to a teen mother | 10% | 11% |
| Percent from single parent household** | 19% | 41% |
| Percent whose parent lost job in the last year | 23% | 17% |
| Average levels of support for parenting (1 to 4 scale) | 3.06 | 3.21 |
| Frequency of negative feelings about parenting (1 to 4 scale)+ | 1.42 | 1.58 |
| Average level of major life concerns (1 to 3 scale) * | 1.64 | 1.89 |

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

Note: Percentages may not sum to 100 due to rounding. Sample sizes range from 1,257-1,589 for children without well-being concerns and 37-55 for children with 1+ well-being concerns. Significant differences according to chi-square tests or t-tests are indicated in bold and as follows: * $p < .05$; ** $p < .01$; *** $p < .001$. The ethnicity and insurance variables include small cell sizes; caution should be used in interpreting results.

## Section Summary

Nine factors explained 32 percent of entering 2011 kindergarteners' readiness scores in Alameda County. 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 readiness predictors highlight ways that targeted community interventions may be able to help raise children's readiness levels. Preschool experience was associated with enhanced readiness (although not in social-emotional readiness domains), as was having parents who had more positive parenting attitudes.

# PART 7

# Participation in F5AC Summer Pre-K and Readiness

**Contents of this Chapter:**

Promoting school readiness is a key objective of many First 5 Alameda County (F5AC) programs and services for children and families, particularly F5AC's Summer Pre-K (SPK) program. This section explores the following research question: To what extent is exposure to F5AC's SPK program associated with changes in parents' knowledge and behavior and children's readiness levels?

**Key Findings:**

- 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.
- Compared to parents of children with no pre-k exposure, parents of children enrolled in SPK:
  - Were significantly more likely than to have received important information about helping their child get ready for school
  - Engaged in significantly greater numbers of transition activities to get their child prepared for starting kindergarten
- 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.
- 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.

# Special Section: A Closer Look at Participation in F5AC Summer Pre-K Program and School Readiness

## Section Overview

One of the key outcomes of F5AC is that children enter school ready to learn, and many of the F5AC-funded programs expect to impact school readiness in the short or long term. Among these funded programs and services, none has a more direct link to students' readiness levels than F5AC's Summer Pre-K (SPK) program, a short-term program held in the summer prior to kindergarten for those without preschool experience. This section examines the characteristics of those attending SPK and compares the readiness levels of these students to their kindergarten peers with other pre-k backgrounds.

## Description of F5AC Summer-Pre-K Program

The F5AC Summer Pre-K (SPK) program is a five-to-six week program for children with no prior preschool or licensed childcare experience. The program is designed to provide children with an opportunity to learn in a developmentally appropriate classroom environment and expose them to social experiences and develop various skills necessary for success in kindergarten. Parents and children are introduced to the school setting, easing the transition to kindergarten. Parent workshops are also provided through this program, as are developmental screenings if a teacher or parent sees a need for them.

## SPK Participants in the Readiness Study

To determine which students in the readiness study had been exposed to F5AC programs, F5AC provided database records for participants in a subset of their funded programs in which enhanced school readiness is a short- or long-term outcome. These data were merged with data collected in the school readiness study to: (1) identify those readiness study participants who had also received F5AC intervention(s); and (2) compare their demographic and socioeconomic characteristics, family environments, early education experiences, and readiness levels to those of their peers who had not received F5AC services. The "Methodology" section of this report describes that matching process in greater detail; in sum, that effort led to 288 matches of students in the readiness study who had also participated in one or more F5AC programs. The current report section focuses on the 135 readiness study participants (8% of the sample) who had also taken part in the F5AC SPK program.

What county regions were most represented among the students who had attended the SPK program? As the following figure shows, half of those served by SPK were from the San Lorenzo Unified School District. Twelve percent were from Livermore, and ten percent were from Oakland Unified and San Leandro Unified. No students in this sample from New Haven Unified School District had received F5AC's SPK program.

Figure 82. **School Districts of Students Served by F5AC Programs**

| School District | Number of SPK program participants | Percent of SPK program participants |
|---|---|---|
| San Lorenzo Unified | 67 | 50% |
| Livermore Valley Joint Unified | 16 | 12% |
| Oakland Unified | 14 | 10% |
| San Leandro Unified | 13 | 10% |
| Fremont Unified | 8 | 6% |
| Pleasanton Unified | 7 | 5% |
| Castro Valley Unified | 7 | 5% |
| Hayward Unified | 3 | 2% |
| New Haven Unified | 0 | 0% |
| Total | 135 | 100% |

Source: Kindergarten Observation Form I (2011) and ECChange data (2011).

Note: Sample size = 1,597.

To better understand the characteristics of the children and families who received the SPK program, analyses divided the kindergarten sample into those who did versus did not attend SPK. As the following figure reveals, students attending SPK 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. SPK students were similar to their peers on overall family income levels (although many families did not report their income).

Although SPK participants and non-participants were similar in their rates of diagnosed special needs, the SPK participants were twice as likely to have suspected (but not yet formally diagnosed) special needs. This may be reflecting the fact that issues have been detected during the SPK program and were in the process of being investigated at the time of data collection (but had not yet been resolved), or this may indicate a need for more comprehensive screening efforts during the short period in which students are in the SPK program.

Figure 83. **How Do SPK Participants Differ from their Peers?**

| **Child/Family Characteristics** | Percentage of those not participating in SPK | Percentage of SPK participants |
|---|---|---|
| Child race/ethnicity*** | | |
| Hispanic/Latino | 48% | 71% |
| Caucasian | 19% | 9% |
| Asian | 10% | 7% |
| African American | 10% | 6% |
| Multi-racial | 7% | 2% |
| Other | 6% | 5% |
| Child is English learner*** | 51% | 72% |
| Mother has high school education or less+ | 42% | 51% |
| Family income is less than $35,000/year | 47% | 48% |
| Child has diagnosed special needs | 6% | 6% |
| Child has suspected but not (yet) diagnosed special needs* | 5% | 11% |

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

Note: Sample sizes range from 1120-1454 for non-recipients and 95-134 for SPK participants. Significant differences according to chi-square tests or t-tests are indicated as follows: $^{+}$ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

## Is SPK Program Participation Associated with Enhancements in Parent Knowledge and Behavior?

The SPK program includes school readiness-promoting interventions that target both the child and his or her parents/caregivers. Thus, there are multiple ways to demonstrate the potential impact of SPK on the children and families who take part in it, including:

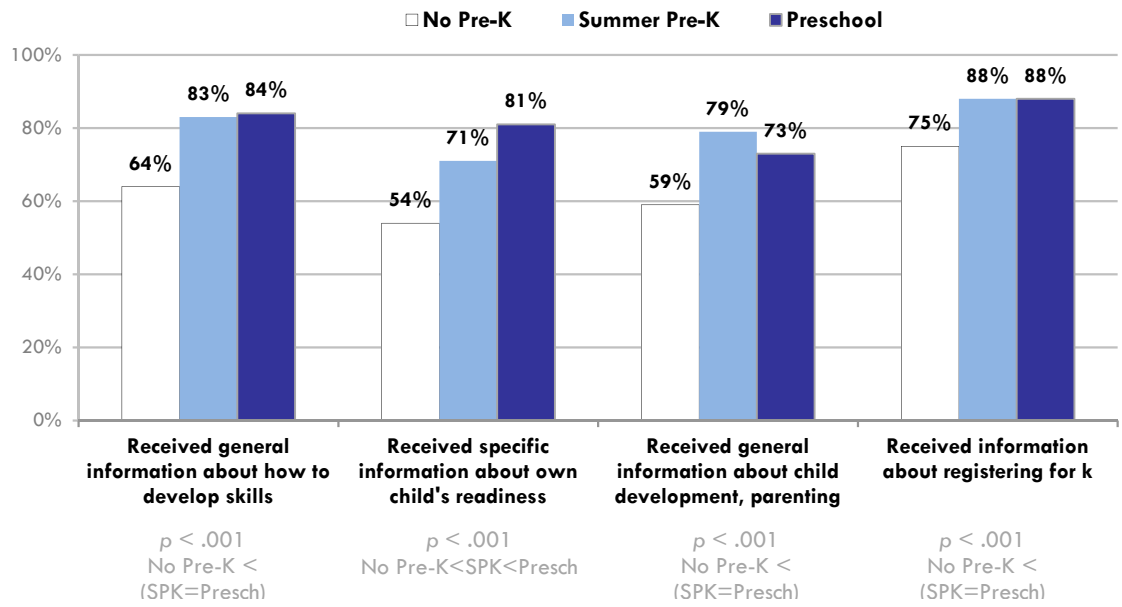
- Impacts on the information parents have about readiness skills and how to prepare their child for kindergarten;
- Impacts on the kindergarten transition activities that families engage in with their child prior to the start of school;
- Impacts on key family activities that relate to enhance readiness, particularly read-aloud behavior in the home; and
- Impacts on the readiness levels of students who have attended the SPK program.

The first three of these questions are examined on this section; the following section considers school readiness outcomes among the SPK participants.

To investigate associations between SPK program participation and changes in parents' knowledge and behavior, the sample was divided into three groups: (1) those whose children had no preschool experience of any kind; (2) those whose children took part in the SPK program; and (3) those who had a longer-term preschool experience in a licensed preschool or childcare center, including Head Start, State Preschool or private programs. Clearly, through their connections with their pre-k programs, the latter two groups would be expected to have received information about readiness and the behaviors they should be engaging in to build their child's skills. It was not clear how families in the SPK program would compare to those with the longer-term preschool experience, however, due to the relatively short window of intervention afforded by the SPK program.

The figure that follows displays the percentage of families in each of these three groups who had received different kinds of information to help them with their child's readiness for school. Families who had a child in the SPK program were more likely than families of children with no pre-k experience to have received general readiness information, specific information about their own child's readiness levels, information about parenting and child development, and information about registering their child for kindergarten. Moreover, for three of these four types of information, SPK families were as likely as families with a child in a long-term preschool program to have received information. One area where the SPK families lagged behind those with a longer-term preschool experience was in receipt of specific information about their own child's readiness for school.

Figure 84. **Parents' Receipt of Information Related to Readiness, by Pre-K Experience**

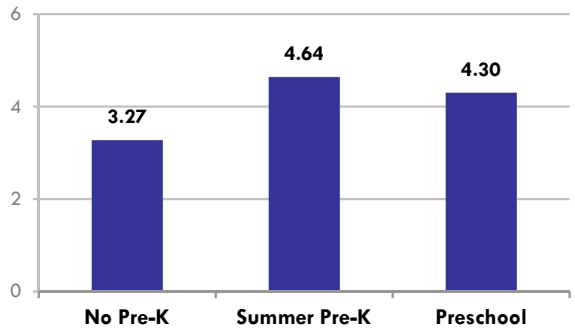



Source: Parent Information Form (2011).

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.

Participation in the SPK program was also associated with families engaging in a greater number of transition activities to prepare their child for the start of kindergarten. As the following figure shows, SPK families engaged in significantly more transition activities than families of children with no pre-k experience. The SPK families also engaged in more transition activities than did families with a child enrolled in a longer-term preschool, also this difference did not reach statistical significance.

Figure 85. **Average Number of Transition Activities Prior to Kindergarten, by Pre-K Experience**

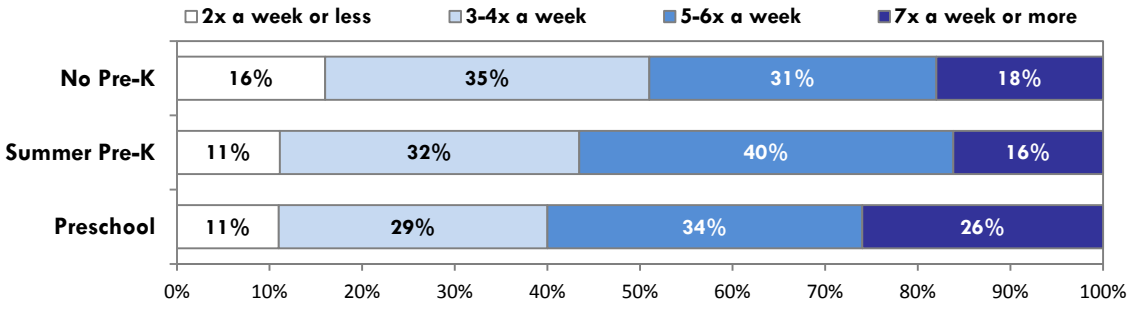



Source: Parent Information Form (2011).

Note: Means can range from 0 to 10. Means are based on 380 No Pre-K students, 107 Summer Pre-K students, and 808 Preschool students. Differences in mean scores are significant, according to oneway analysis of variance, $p < .001$. Post-hoc tests revealed that No Pre-K engaged in significantly fewer than SPK or Preschool (which were statistically similar to each other).

The following figure shows the frequency of reading at home as a function of the three types of pre-k experiences examined. This figure shows that participation in the SPK program was not clearly associated with more frequent home reading as compared to families with no pre-k experience. This is not entirely surprising, given that this behavior is sometimes difficult to impact without more extensive intervention. In addition, reading at home is strongly correlated with maternal education levels (Raikes, Pan, Luze, Tamis-LeMonda, Brooks-Gunn, Constantine, Tarullo, Raikes, & Rodriguez, 2006), and the SPK sample is composed of high percentages of mothers with no education beyond high school.

Figure 86. **Frequency of Reading at Home, by Pre-K Experience**




Source: Parent Information Form (2011).

Note: Percentages are based on 373 No Pre-K students, 99 Summer Pre-K students, and 803 Preschool students. Percentages are significantly different, according to chi-square tests ($p < .01$).

## Do Children Who Attend the Summer Pre-K Program Show Enhanced Readiness Skills?

To examine the extent to which SPK program participation was associated with readiness boosts, children were again divided into the same three groups used to compare parent outcomes in the previous section: (1) those without preschool experience of any kind; (2) those who were verified through the F5AC database as having attended the Summer Pre-K program; and (3) those who had a longer-term preschool experience in a licensed preschool or childcare center, including Head Start, State Preschool or private programs.

Because these groups had different background characteristics, ASR used analysis of covariance techniques to examine average readiness levels of participants in F5AC's SPK program, controlling for basic demographic and socioeconomic differences and the measurement variables controlled for in the previous section's regression analyses. The SPK participants were compared to both those children who did not have any preschool experience and children who had a longer-term early education experience in a preschool or a licensed childcare center.

The figure that follows shows the readiness levels of the three groups of students, for overall readiness levels and readiness on each of the four *Basic Building Blocks*. The general trend in overall readiness skills is as follows: those without any pre-k experience tend to have the lowest readiness levels, and those with a full-term preschool experience tend to have the highest readiness levels. Those who attended SPK tend to have readiness levels that fall in between these two groups. Tests of statistical significance revealed that those with a full preschool experience had statistically higher readiness levels than those with no preschool experience at all. The SPK students – who fall in between these two groups in their readiness skills – were not statistically different from either those with a full preschool experience or those with nothing.

Closer examinations of the different readiness domains show some variations in these trends, however. For example, it is noteworthy that the three groups of students did not differ significantly from each other on their *Self-Regulation* skills. In fact, the range of scores across these three groups was very narrow. This is consistent with other research showing that preschool experience often is not shown to be associated with boosts in social and emotional domains of readiness, although SPK participation has been associated with enhance readiness in this area in previous studies (e.g., the 2010 assessment).

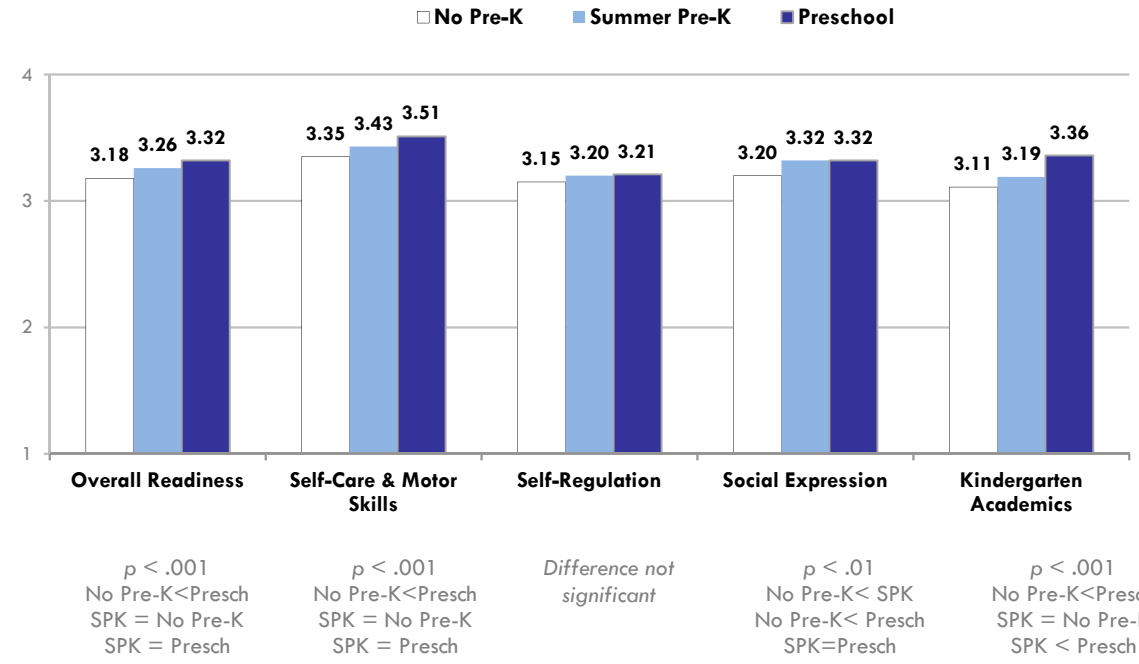
In *Social Expression*, students in the SPK program had the same levels of readiness as those with a longer-term preschool experience, and both groups of students were significantly more ready in these skills than their peers who had no pre-k experience at all.

In *Kindergarten Academics*, mirroring past years' results, there was again a (nonsignificant) trend for SPK students to be outperforming students with no pre-k experience at all, but both groups of students lagged behind their peers who had attended a longer-term preschool on these types of skills.

In sum, 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 statistically significant, 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 is no clear benefit to any type of pre-k program.

Figure 87. **Students' Readiness as a Function of Pre-K Experience – Adjusted Means**

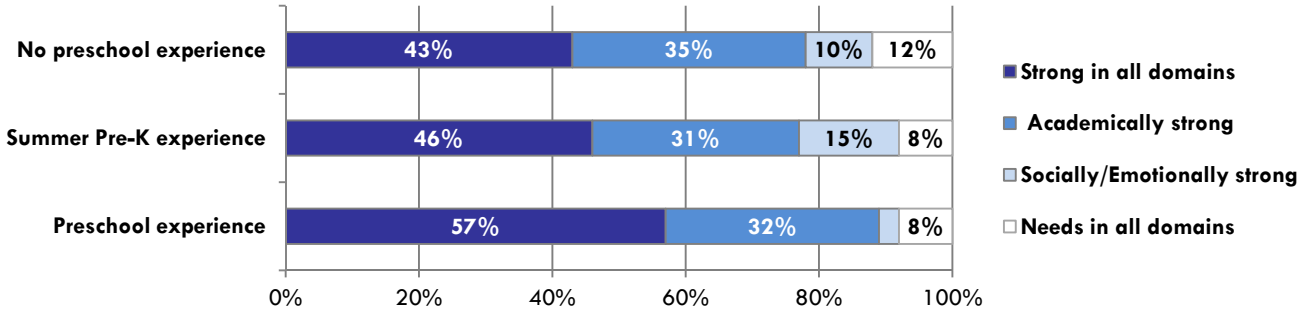



Source: Kindergarten Observation Form I (2011).

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.

ASR next examined the *Readiness Portraits* of students, as a function of what type of pre-kindergarten experience they had had. As the figure shows, there were slightly more SPK students who were *Strong in all domains* than there were among students with no pre-k experience at all. Both of these groups of students lagged behind the students with a longer-term preschool experience, however; among these students, 57 percent were strong across all *Basic Building Blocks*. There were also fewer SPK students who had comprehensive readiness needs in all domains than among the group of students with no preschool experience. Given the relative strength of SPK students in *Social Expression* skills, it is not surprising that a larger proportion of SPK students are in the *Socially/emotional strong* readiness portrait than was observed for the students with no preschool or with a full-term preschool experience.

Figure 88. **Readiness Portraits as a Function of Pre-K and Preschool Experience**




Source: Kindergarten Observation Form I (2011).

Note: Percentages may not sum to 100 due to rounding. Scores are based on 471 No Pre-K students, 135 Summer Pre-K students, and 908 Preschool students. The distribution of students into portraits among the three groups was significantly different overall, according to chi-square tests ($p < .001$).

## Section Summary

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. Results revealed that, compared to parents of children with no pre-k exposure, parents of children enrolled in SPK:

- Were significantly more likely than to have received important information about helping their child get ready for school
- Engaged in significantly greater numbers of 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.

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.

# PART 8
# Conclusions and Recommendations

**Contents of this Chapter:**

This section draws upon the findings from four years of school readiness assessment research in Alameda County to suggest priorities for action and intervention to enhance children's readiness for school.

**Conclusions and Recommendations:**

- The achievement gap starts before students enter kindergarten – and so should interventions to eliminate the gap.
- First 5's efforts to improve school readiness need to consider Alameda County's digital divide.
- Implementation of a quality rating system for preschool programs will improve our understanding of how to enhance children's readiness.
- Development of *Self-Regulation* skills continues to be a key priority for supporting children during their first five years.
- Community interventions should target the factors that are most strongly associated with enhanced readiness levels:
    - Provide support for families
    - Screen children early for developmental concerns and special needs
    - Promote high-quality preschool experiences
    - Provide information to parents to help them work on their children's readiness
- For children who have not had a longer-term preschool experience, F5AC's Summer Pre-K program is strongly recommended.

# Conclusions and Recommendations

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

African American and Hispanic/Latino students in Alameda County enter school with lower readiness levels than their Asian and Caucasian peers. When findings from a recent longitudinal study that used readiness data to predict third grade outcomes were applied to different groups of students in this year's Alameda County readiness study, results showed that Asian and Caucasian students were about twice as likely as Latino and African American students to have the readiness skill patterns that are most strongly associated with third grade academic proficiency. This is nearly identical to the current gap that exists between these groups on the 2011 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. Data from this study show that F5AC has done very good job in this area. When students in the readiness study were matched with F5AC records to identify those who had attended their Summer Pre-K (SPK) program, results showed that the SPK students were more likely than their peers to be Hispanic/Latino and English Learners (although African American students were slightly underrepresented in this sample of SPK students).

More can be done to help address the achievement gap in the early years of children's development. The interventions that are most strongly associated with enhanced student readiness levels (see sections below for more on this) should target the families who are most at risk for poor outcomes on the standardized tests that are used to indicate academic success in California.

## 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, parents were asked about whether they had access to the internet for their personal (not work-related) use. Although more than three out of four families overall (78%) indicated they did have access to the internet, more specific analyses found large gaps in internet access between 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), as many as 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.

Consequently, 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. Those families who do not have the ability to access the information, resources, and parenting support that is widely available on the internet need to have easy access to helpful information that is provided in other forms – such as pamphlets, handouts, or parent workshops or peer networks

– and that they are linked to these resources and information through the community organizations and institutions with which they are already connected, such as preschools or family day care, churches, recreation centers, or other service providers. Without providing easily accessible alternatives for getting important information and support to at-risk families, existing readiness gaps are unlikely to disappear soon.

## 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 year, mean readiness scores in *Self-Regulation (*adjusted for sample differences) showed very little difference among students with no preschool experience at all, those with F5AC's short-term Summer Pre-K program, and those with a long-term preschool experience. 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. Such findings underscore our currently limited ability to conduct a comprehensive analysis of the impact of preschool.

The current study categorizes students into those with and without some kind of licensed, center-based preschool program and then broadly examines readiness levels for these two groups of students. This information is certainly important to gather, but clearly, not all preschool programs are equal in their quality, considering factors such as the experience and training of their teachers, the developmental appropriateness of their curricula and spaces, their alignment with the expectations and practices of elementary schools, and many other aspects of the preschool setting. 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. Across all of the *Basic Building Blocks* of readiness, students' average readiness levels were lowest on these skills, and more than one in four students (28%) was significantly below the level of readiness that teachers felt they needed to have to be successful in school. 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.

The current challenges facing the K-12 education system in California – specifically the increasing student enrollment in many kindergarten classrooms – make these *Self-Regulation* issues even more important than they have been previously. A number of teachers in this year's assessment had 30 or more students in their kindergarten classrooms. Just a few years ago, most teachers had 20. With 50 percent more students in many classroom than in previous years, dealing with the *Self-Regulation* issues of even a small percentage of students takes more time than it used to – time that is then not being spent on learning the kindergarten content that is necessary for students to move to the first grade with the skills they need to be successful.

A few research-based strategies for fostering children's *Self-Regulation* skills include:

- Fostering parent involvement and offering parenting education. Warm and responsive early relationships set the foundations for children's positive social and emotional development (Boyd, Barnett, Bodrova, Leong, & Gomby, 2005).
- Providing many opportunities for pretend play at home and in the classroom. Imaginative play provides an abundance of opportunities for children to practice and internalize social norms/rules and safely explore their feelings. Adults can support children and help to add to the complexity of this play (Berk, Mann, & Ogan, 2006).
- Structuring the home and classroom environments so that children have daily opportunities to make choices, think ahead, plan activities, and consider and use strategies to solve the social problems they encounter. Self-regulation skills must be practiced early and often for optimal brain growth and socioemotional development (Boyd et al., 2005).
- Reading with children and using children's books as opportunities to engage in discussions about emotions and the different ways one can respond when feeling frustrated or angry (Greengrass, 2010).

## 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 potentially impactful community interventions to raise the readiness levels of Alameda County students.

### Provide Support for Families

Children's basic needs for adequate food, sleep, and good health should always be met. Parents need to be functioning well to help build strong foundations for learning in their children. Pregnant women need high-quality prenatal care to ensure the healthy development of their babies. Regression analyses suggested that these three factors – children's frequency of being tired, hungry, or ill; parents' frequency of experiencing negative feelings about parenting; and children not being born with a low birth weight – are strongly related to children's readiness levels.

A deeper look into the children who were frequently tired, hungry, or ill revealed that these issues are not simply a by-product of poverty; in fact, these children were equally likely as their peers to come from low-income families. Instead, these children who occasionally (or more frequently) came to school hungry, tired, or ill were more likely than their peers to come from families facing some challenging circumstances, such as single-parent households, greater parent reports of life concerns, and more frequent parent reports of negative parenting attitudes. These findings underscore the connection between strong, healthy families and children's ability to grow and thrive. Programs and services that assist at-risk families in coping with the challenges of parenting, such as those offered through F5AC, may help parents provide home environments that better promote their children's social and emotional development. In addition, early intervention programs that begin working with women early in their pregnancies to ensure that they get high-quality prenatal care may reduce the number of children who enter kindergarten with significant cognitive and behavioral delays.

### Screen Children Early for Developmental Concerns and Special Needs

Several years of analyses have also shown that students with special needs had lower readiness levels than their peers without special needs, particularly in social and emotional domains of readiness. This finding underscores the need to ensure that students with special needs are identified and begin receiving supports to enhance their learning as early as possible so they have the best chance to succeed. Six percent of the students in the sample were suspected to have an as-yet-undiagnosed special need. F5AC should continue to support county-wide efforts to ensure that all children are exposed to developmental screenings conducted by well-trained professionals in both medical and early care and education settings.

### Promote High-Quality Preschool Experiences

As described above, preschool experience emerged as being strongly associated with enhanced readiness, although not for skills in social-emotional domains. Although many students in this sample had attended preschool, a significant number had not, and differences in rates of preschool attendance were observed for students from different racial/ethnic backgrounds and income levels, among other characteristics. Districts and community partners should continue to look for new opportunities to provide students with high-quality early education experiences – and to target children and families who are currently underrepresented among the ranks of preschoolers.

### Provide Information to Parents to Help Them Work on Their Children's Readiness

*NEGP* definitions of school readiness include a specific component recognizing the role that families and communities play in preparing children for school. In each Alameda County assessment since we began asking such questions, children whose parents received information

about how ready their child was for school had stronger skills in *Kindergarten Academics* than children of parents who did not receive this information. In light of additional data showing that parents generally are less likely to see their children's readiness needs than their teachers are, this is much-need feedback for parents.

Examples of activities families can engage in to smooth the transition to kindergarten include: Visiting the elementary school with the child prior to the start of school, working on school skills at home with the child, attending parent meetings and orientations, asking child care providers if the child is ready for kindergarten, meeting the child's kindergarten teacher prior to the start of school, asking one's child care provider about what to expect in kindergarten, watching books/videos about kindergarten with one's child, reading about the transition to kindergarten, or having the child attend a summer pre-k program. In this study, parents had engaged in only four of these ten transition activities on average.

The best opportunities for sharing information with parents about preparing their children for school come through children's early care providers. However, for those without access to such providers, an important alternative way to reach families may be through social marketing campaigns that teach families to take a whole-child perspective on readiness (i.e., that school skills are not just about shapes, colors, letters, and numbers) and provide guidelines for how to build children's readiness skills at home. Local efforts to educate families and increase their ability to support their children's transitions to kindergarten in three counties – Santa Clara, San Francisco, and San Mateo – have resulted in the creation and distribution of visually appealing, easy-to-read parent handbooks and DVD's in multiple languages, with each region using its own readiness study findings on the *Basic Building Blocks* to guide action.

## 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 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. Compared to parents of children with no pre-k exposure, parents of children enrolled in SPK were more likely than 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.

Looking at children's outcomes, 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 comparisons with students who had a longer-term preschool experience, SPK students were statistically similar in all readiness domains except *Kindergarten Academics*, where they continued to lag somewhat behind those with a full-term preschool experience. With such promising findings – which have been confirmed in each of the four years of these readiness studies – F5AC should to continue to find ways to offer these SPK classes, particularly for student populations – such as Hispanic/Latino and very low-income students – who have lower-than-average rates of preschool attendance and readiness levels.

# About the Researcher

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

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