

# Children's Readiness for Kindergarten in San Francisco

Results of the Fall 2007 Assessment in San Francisco Unified School District

**Executive Summary**

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## Background

Each year more than 4,000 new kindergarten students enter San Francisco Unified School District (SFUSD) schools for the first time. These students reflect the great diversity of this unique city, as they represent almost 50 different languages and families from all walks of life. San Francisco Unified has demonstrated a long commitment to assessing the talents of these new kindergarten students each fall. This past year, the district sought a comprehensive picture of the kindergarten readiness of incoming students, including a systematic view of children's social-emotional skills. The district also desired information about the ways in which families support the readiness of their children. To furnish this knowledge, San Francisco Unified teamed with First 5 San Francisco in commissioning Applied Survey Research (ASR) to conduct a district-wide assessment of new kindergarten students. That readiness assessment answered three primary questions:

*How – and to what extent – are kindergarten students ready for school?*

*How are early education programs connected to children's school readiness?*

*What other family factors and child characteristics are associated with heightened school readiness?*

## Overview of Assessment Method

Eight years ago, ASR created a method of school readiness assessment that has been used multiple times in neighboring Bay Area counties, as well as in other states. ASR implemented this best-practice methodology in San Francisco in fall 2007, selecting a random sample of SFUSD schools and classrooms to participate. Trained kindergarten teachers served as the expert observers, rating the proficiency of each child in their classes across 24 readiness skills. Over ninety percent of parents agreed to have their children assessed (consent rate = 91%), yielding observations of 447 children.<sup>1</sup> These observations delivered very detailed information about children's readiness as they entered kindergarten in SFUSD –

***In fall 2007, San Francisco Unified School District commissioned an assessment to determine the school readiness of incoming kindergarten students***

***The research was designed to answer 3 questions:***

- ***Are children ready for school?***
- ***How are early education programs connected to readiness?***
- ***What other factors are associated with heightened school readiness?***

***A representative sample of 447 students were assessed by their teachers across 24 readiness skills***

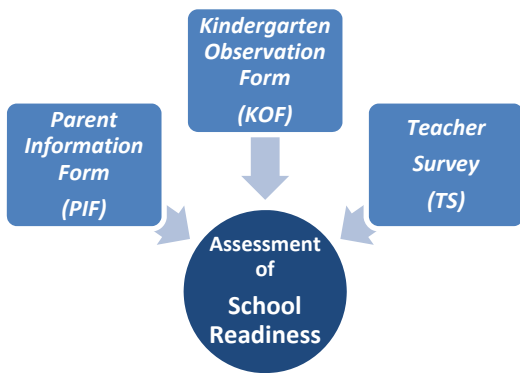
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<sup>1</sup> The random sample of 30 classrooms delivered findings that generalize to the district as a whole within a small margin of error (+/-4%).

both the areas in which children were well-skilled, as well as the areas in which they needed extra supports.

Detailed observations of the children were enriched by information gathered on each child’s family; parents of those children in the assessment were asked to complete 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 solid – 74 percent of families returned a completed form. In addition, all participating teachers reported their viewpoints on and priorities for readiness via a *Teacher Survey*. ASR drew upon these three sources of information – child assessments as measured by the *Kindergarten Observation Form*, family information as measured by the *Parent Information Form*, and teacher viewpoints gathered via the *Teacher Survey* – to construct a comprehensive picture of children’s readiness for school in San Francisco Unified School District.

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



**How – and to what extent – are children ready for kindergarten?**

**Most children arrived at school healthy and with solid primary language development**

To be ready to learn, children must first be physically healthy with age-appropriate development in their primary languages. On these two dimensions, children entering SFUSD kindergarten classrooms appear well-prepared.

- The basic physical needs of almost all children seem to be met – children appeared healthy to teachers, the majority had access to pediatricians, and most have had basic health screenings.
- According to the district’s enrollment data, 62 percent of kindergarten students in 2007 spoke English as their primary language, with 38 percent speaking a primary language other than English.

**Information was gathered from three sources:**

- **Teacher observations of child skills**
- **Information about children’s families**
- **Viewpoints and readiness opinions from participating teachers**

**Most children arrived at school healthy and with solid primary language development**

- Teachers were asked to ascertain language development in children’s primary languages when possible. According to teachers, the language development of most children was solid – over 70 percent of children were rated as “on track” or “advanced” in their primary language.

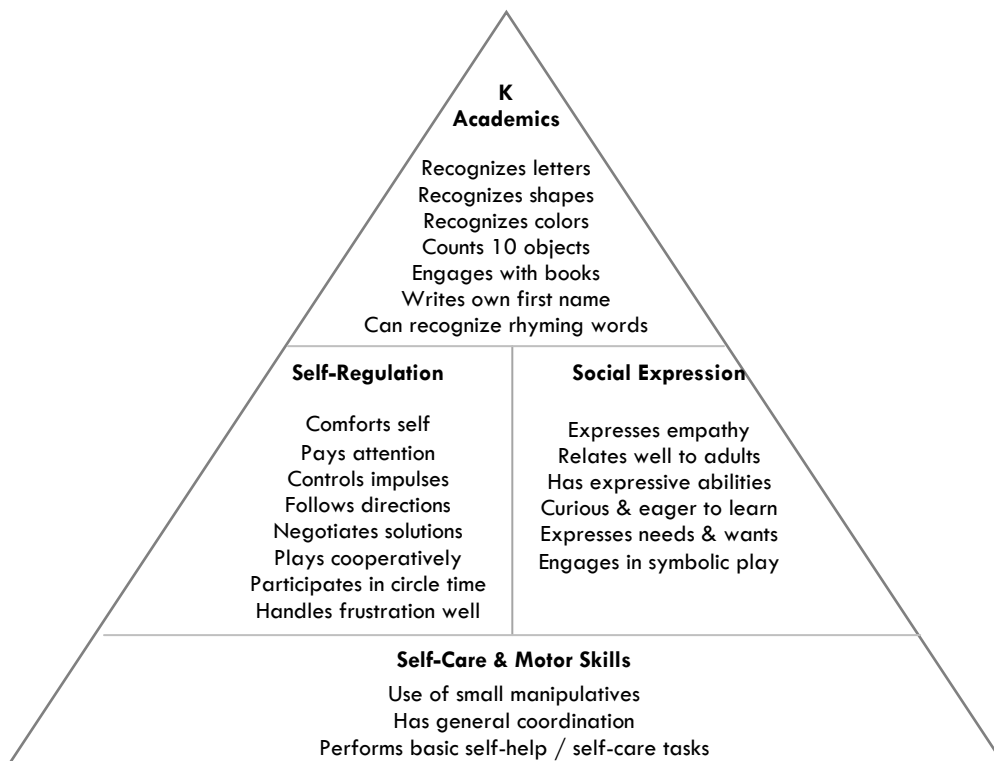
### Introducing the *Basic Building Blocks of School Readiness*

Arriving at school healthy and well-rested is an important foundation, but school readiness is more complex. In fact, to be well-prepared for kindergarten, children need to know much more than their ABCs. This assessment, as well as several previous readiness assessments in the region, has demonstrated that there are multiple dimensions to kindergarten readiness. Statistical exploration of children’s performance across 24 readiness skills revealed that skills reliably sort into four *Basic Building Blocks* of readiness:

- Self-Care & Motor Skills*
- Social Expression*
- Self-Regulation*, and
- Kindergarten Academics*

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

**Figure B: Basic Building Blocks of Readiness**

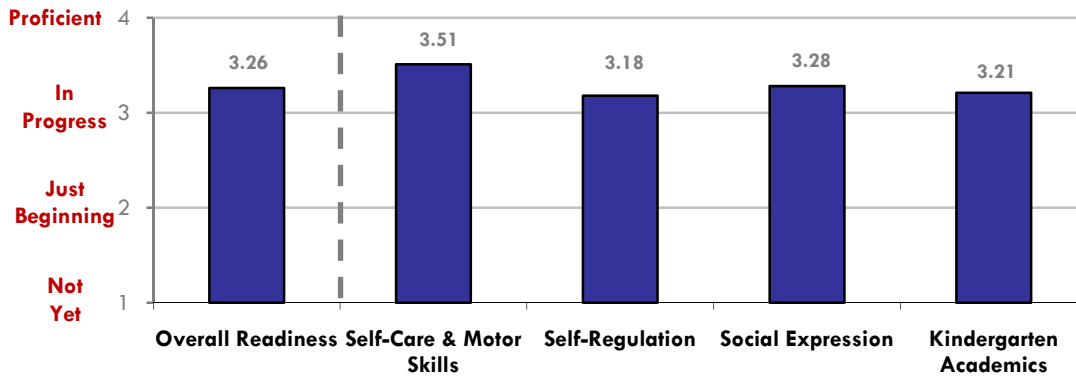


**School readiness is best understood with respect to four Basic Building Blocks dimensions:**

- Self-Care & Motor Skills**
- Social Expression**
- Self-Regulation**
- Kindergarten Academics**

The chart below shows how children scored across the *Basic Building Blocks*. Overall, children scored between the “in progress” and “proficient” levels. Children tended to score highest on *Self-Care & Motor Skills* (3.51) and to have the greatest room to grow in *Self-Regulation* (3.18).

**Figure C: Average Readiness Scores, Overall and for each Basic Building Block**



Source: *Kindergarten Observation Form I (2007)*

Note: Means are based on a four-point scale, where 1=not yet, 2=just beginning, 3=in progress, and 4=proficient. Scores are based on 447 children.

### Over half of children entered kindergarten well-rounded across important readiness skills

There were readiness strengths and challenges across all demographic, income, and ethnic groups in the city. For a more detailed look at different patterns of readiness, children were sorted into one of four *Readiness Portraits* – *All-Stars*, *Social-Stars*, *Focused-on-the-Facts*, and *Needs-Prep* students – based on their pattern of proficiency across the readiness skills.<sup>2</sup>

- Over half of children entered SFUSD kindergarten classrooms as *All-Stars* – near-proficient across the board in all four *Basic Building Blocks* of readiness. These children were well-prepared to succeed in school, with recent studies showing that *All-Stars* significantly outscore their peers on English and math standardized tests in later elementary school (ASR, 2008).

**Overall, children scored between the “in progress” and “proficient” levels of readiness**

**Children were more advanced in Self-Care & Motor Skills and less advanced in Self-Regulation**

**There were readiness strengths and challenges across all demographic, income, and ethnic groups**

**Children sorted into one of four Readiness Portraits based on their patterns of readiness**

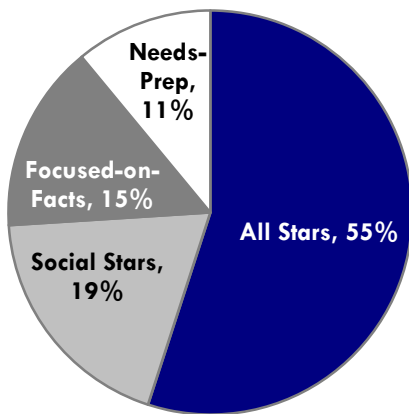
**Over half of children entered kindergarten well-rounded across important readiness skills, sorting into the All-Stars group**

<sup>2</sup> Children were sorted into one of the four *Readiness Portraits* via a data-driven technique called cluster analysis.

- Who demonstrated the greatest readiness needs? Children in the *Needs-Prep* group have not yet learned – or are just beginning to learn – almost all of the 24 readiness skills. Approximately one in ten children sorted into the *Needs-Prep* group, which is a level comparable to that found in neighboring counties.
- The remaining children exhibited mixed patterns of readiness. *Social-Stars* were well-equipped on the social-emotional dimensions of readiness, but they have needs in the realm of *Kindergarten Academics* – learning their letters, numbers, shapes, and colors. In contrast, the *Focused-on-the-Facts* children have mastered their early academics; however, they demonstrate greater challenges in the social-emotional areas of readiness (skills within the *Self-Regulation* and *Social Expression* dimensions).

**11% of children belonged to the Needs-Prep group, with significant needs across all Basic Building Blocks of Readiness**

**Figure D: The Prevalence of Each Readiness Portrait in San Francisco Unified School District**



Source: *Kindergarten Observation Form I* (2007)

Note: This chart is based on 447 students.

### Just how ready is “ready”?

So far these data speak to children’s general readiness levels, but just how ready is “ready”? To answer this question, ASR created different standards of readiness. By comparing children’s actual readiness for kindergarten to these standards, ASR could determine how many children met or exceeded readiness expectations.

- One standard – the **SFUSD Teacher Standard** – used teachers’ desired levels of proficiency as a guide. After their student observations were complete, teachers were asked to report how proficient children should be on each skill in order to experience a smooth transition into kindergarten. Figure E shows teachers’ desired proficiency levels for each *Basic Building Block*. SFUSD teachers’ desired proficiency levels were actually a bit higher than expectations gathered from neighboring Bay Area counties.

**Different standards of readiness were created to answer the question, “Just how ready is ‘ready’?”**

- The Longitudinal Study Standard** – ASR also created a standard based on the kindergarten readiness scores of a group of children who, as of third grade, were academically successful. ASR recently analyzed non-experimental, longitudinal readiness and achievement data of children who had participated in the kindergarten readiness assessments in San Mateo County in 2001-2003.<sup>3</sup> Linking the kindergarten readiness scores of these children to their third-grade STAR test scores showed strong connections between children’s kindergarten readiness and their later academic success. To create the Longitudinal Study Standard for the SFUSD assessment, third-grade children who scored at the *Proficient* or *Advanced* levels on their English Language Arts and Mathematics STAR tests were first identified. ASR then calculated the kindergarten readiness scores for this group of academically successful children. These readiness scores represent the Longitudinal Study Standard, reflecting the kindergarten readiness of children who went on to academic success in third grade.

Figure E shows the average readiness levels for each standard; the level of readiness required for a smooth transition into kindergarten (i.e., the SFUSD Teacher Standard) is lower than the readiness levels of children who went on to do well on their third-grade STAR tests (i.e., the Longitudinal Study Standard).

**Figure E: Desired Readiness Levels for the SFUSD Teacher Standard and the Longitudinal Study Standard**

<i>Basic Building Blocks</i>	SFUSD Teacher Standard	Longitudinal Study Standard
Overall Readiness	3.21	3.53
<i>Self-Care &amp; Motor Skills</i>	3.33	3.66
<i>Self-Regulation</i>	3.28	3.42
<i>Social Expression</i>	3.20	3.49
<i>Kindergarten Academics</i>	3.08	3.52

Source: *Teacher Survey of Importance of Readiness Skills 2007* and ASR’s *Longitudinal Study 2008*

Note: The SFUSD Teacher Standard is based on 30 teachers who participated in the SFUSD readiness assessment in Fall 2007. The Longitudinal Study Standard is based on the kindergarten readiness scores of 277 children (of a possible 719 children) who: (a) participated in the 2001, 2002, or 2003 readiness assessments in San Mateo County, and (b) scored at the *Proficient* or *Advanced* levels on both their English and Math STAR tests in third grade.

The first set of columns in Figure F shows the percentage of children who met or exceeded the SFUSD Teacher Standard. Over 60 percent of children met or

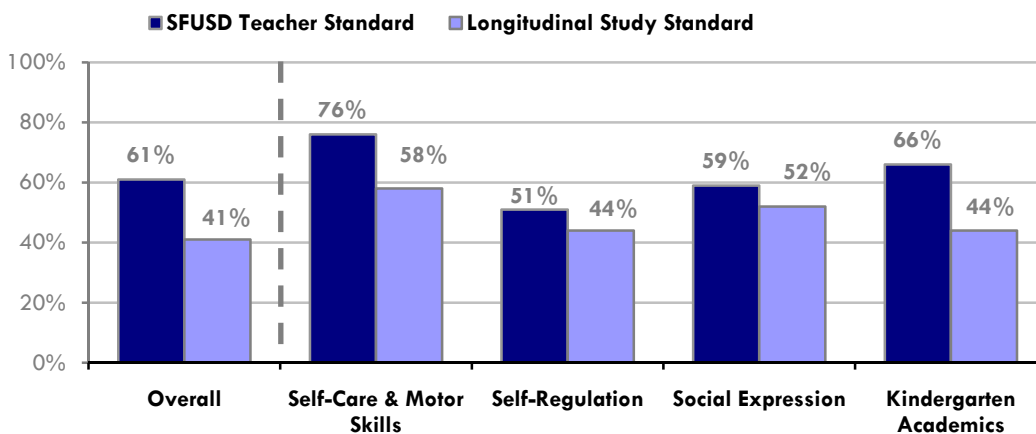
**The SFUSD Teacher Standard reflects how proficient teachers think children should be for a smooth entry into kindergarten**

**The Longitudinal Study Standard reflects the actual kindergarten readiness levels of children who were academically successful in third grade**

<sup>3</sup> The full report entitled *Does Readiness Matter? How Kindergarten Readiness Translates Into Academic Success* can be downloaded from [www.appliedsurveyresearch.org](http://www.appliedsurveyresearch.org).

exceeded SFUSD teachers' desired levels of proficiency for a smooth transition into kindergarten. More children met expectations in *Self-Care & Motor Skills* (76%), whereas just over half of children met expectations in *Self-Regulation* (51%). The second set of columns reflects the percent of SFUSD kindergarten students who met or exceeded the Longitudinal Study Standard. About 40 percent of incoming SFUSD kindergarten students were as ready (or more ready) as the group of academically successful children had been at kindergarten. Again, a larger proportion of SFUSD children met the Longitudinal Study Standard in *Self-Care & Motor Skills* (58%), with fewer meeting the standard in *Self-Regulation* (44%) and *Kindergarten Academics* (44%). It is interesting to note that the percentage of children meeting the Longitudinal Study Standard on overall readiness is very similar to 2007 STAR test results recently released by the California Department of Education. According to those results, 41 percent of third-grade children in SFUSD reached the *Proficient* or *Advanced* levels on their English Language Arts test.

**Figure F: Percent of Children Meeting or Exceeding Each Readiness Standard**



Source: *Kindergarten Observation Form I 2007*, *Teacher Survey of Importance of Readiness Skills 2007*, and ASR's *Longitudinal Study 2008*

Note: Percentages are based on 447 children.

### Where is readiness stronger vs. weaker?

San Francisco Unified is a diverse district, and teachers in different schools can face very different populations of kindergarten students. For example, children who were more ready for kindergarten tended to matriculate into schools with high rankings on the Academic Performance Index, whereas children who entered lower-ranking schools were less ready for kindergarten.

To illuminate the greatest disparities in readiness, ASR examined the classroom composition of the five highest-scoring classrooms versus the five lowest-scoring classrooms. Whereas almost all of the children in the highest-scoring classrooms were *All-Stars* and therefore near proficient across the 24 readiness skills, the

**Over 60% of children met or exceeded SFUSD teachers' desired levels of proficiency for a smooth transition into kindergarten**

**41% of children matched the level of readiness of children who went on to be academically successful on 3<sup>rd</sup> grade STAR tests**

children in the lowest-scoring classrooms had much more diverse strengths and needs. More than one-third of them were *Needs-Prep* children who were just beginning to learn the gamut of readiness skills, and just one-in-four were prepared *All-Stars*. Such data remind us that different teachers face very different groups of incoming students.

## **What do families do to support their children's entry into kindergarten?**

The readiness of families to support their children's entry into kindergarten is an important component to school readiness. In many respects, San Francisco families appeared ready to support their children's success in school:

- Most families had visited city resources like local parks, the San Francisco zoo, and San Francisco Public libraries.
- Most families appeared to place limits on their children's screen time – 71 percent of children had daily screen time that was within American Academy of Pediatrics guidelines. And most of the screen time that children did spend was “educational,” according to parents.
- Almost all families had at least some children's books in their home (98%).
- Most parents had healthy attitudes about parenting, social support, and coping. Seventy-nine percent reported feeling confident in their ability to help their child grow and develop; most felt they could easily find someone to talk to when they need advice about parenting.
- Most San Francisco families were well-engaged with their children – over half of families reported that they read with their children for more than 5 minutes a day, five (or more) times a week.
- Families also engaged in many activities to assist their children with the transition into kindergarten. Seventy percent of families had visited the elementary school with their child, more than half had worked with their children on school skills (54%), and about half had met their child's kindergarten teacher before the first day of school (49%).

## **How are early education programs associated with children's readiness for school?**

Preschool attendance rates in SFUSD were high – 72 percent of children in this study had attended some type of preschool during the year prior to kindergarten. Fortunately, economic hardship did not appear to be a barrier to preschool attendance. Children from economically disadvantaged backgrounds were just as likely to attend preschool as were children from families with higher incomes.

***Families support their children's readiness for school in multiple ways***

***72% of children entering kindergarten in SFUSD had had a preschool experience***

Regression analysis showed that children who attended preschool were more ready for kindergarten than their non-preschooled peers. For example:

- Preschool graduates entered kindergarten with significantly higher scores on *Kindergarten Academics* than their non-preschooled peers, even after controlling for a number of demographic differences. This finding is important, because it is the *Kindergarten Academics* skills that are most closely linked to academic achievement in later elementary grades (ASR, 2008).
- Preschool experience was associated with greater proficiency in important pre-literacy skills like recognizes letters, recognizes rhyming, writes first name, and has expressive abilities.
- Preschool graduates were more likely to use problem-solving skills to resolve conflict.
- Children with preschool experience also appeared to have an easier time transitioning into school. Children with preschool experience were less nervous in the classroom, participated more frequently in class discussions, and seemed to enjoy school more (as compared to children with no preschool experience).

Families who sent their children to preschool also tended to engage in more of the behaviors that are associated with heightened readiness. For example, families of preschool graduates read aloud to their children more frequently than did families of other children. Reading aloud is one important way of engaging children with books, and engagement with books is one of the key readiness skills that ASR has found to be linked to later academic achievement (ASR, 2008).

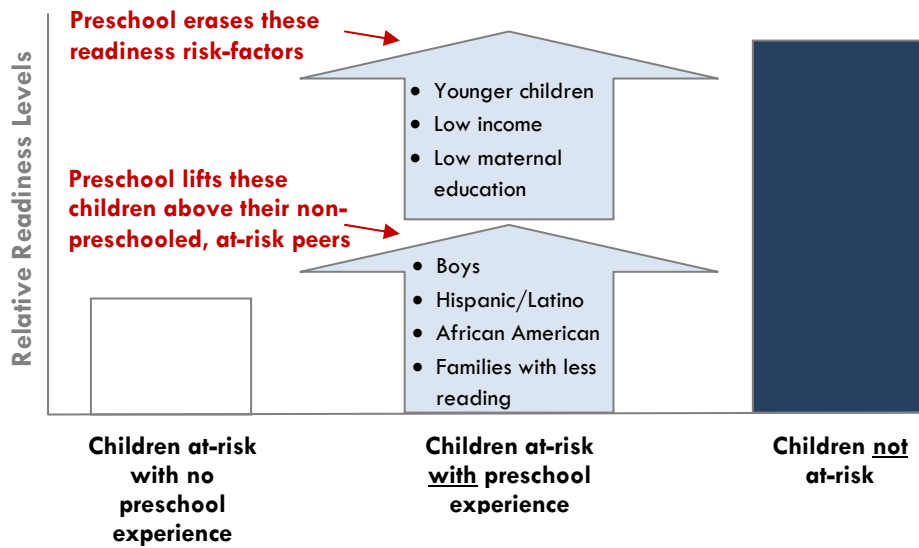
Importantly, preschool may have contributed to leveling the playing field for children at-risk of lower readiness scores. ASR identified several risk factors that were associated with lower readiness scores (e.g., age, income, maternal education). Preschool appeared to erase the risk for younger children, children from economically disadvantaged families, and children whose mothers had not pursued post-high school education. As long as these at-risk children had attended preschool, they entered kindergarten just as ready as children without the risk factor (see Figure G). Preschool also appeared to be particularly helpful for boys and, to a lesser extent, for Hispanic/Latino children, African American children, and for children who received less read-aloud exposure at home. Preschool raised these children above their at-risk peers without preschool, but they didn't quite reach the readiness levels of children not at-risk.

***Children who had a preschool experience were more ready for school***

***Children who had a preschool experience experienced a smoother transition into kindergarten***

***Preschool was also important for “leveling the playing field” for children at-risk of lower readiness scores***

**Figure G: Summary of Findings for “Preschool As A Buffer” Analyses**



**What else is associated with higher readiness?**

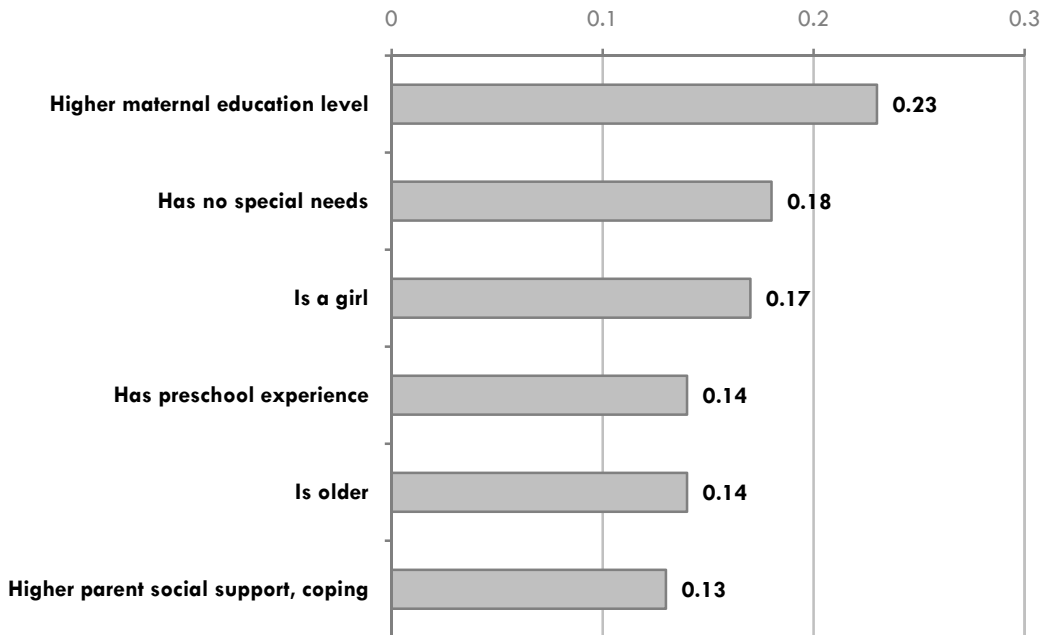
Regression analysis showed the importance of preschool as a link to increased readiness, but the analysis also showed that a number of other child and family factors were also associated with heightened readiness. Of all the variables entered into the regression (including family income, ethnicity, and English Learner status, among others), several factors appear to have a powerful and independent association with kindergarten readiness. As Figure H shows, girls, children who were older when they entered school, and children who did not have special needs began kindergarten at higher readiness levels.

Families were important, too. Mothers who were more educated tended to have children who were more ready for school. (In fact, the connection between maternal education levels and readiness was so strong that other highly correlated factors like income and ethnicity did not emerge as significant.) Moreover, parents who reported higher levels of social support and coping also sent children to school who tended to be more ready than their peers. These families felt confident in their ability to help their child grow and develop, they could easily find someone to talk to when they needed advice or help, and they reported coping well with the day-to-day demands of parenting.

Although such regression analysis cannot speak to the causes of school readiness, clearly there are links between readiness and child characteristics (i.e., gender, age, special needs status, and preschool history), as well as links between readiness and family strengths in the realms of education and social support.

***Maternal education, special needs status, gender, preschool experience, age, and parental social support and coping were significantly associated with higher readiness scores***

**Figure H: Relative Strength of Factors Significantly Associated with Overall School Readiness**



Source: Kindergarten Observation Form I and Parent Information Form (2007)

Note: Values for each factor listed above represent standardized beta coefficients that were significant at  $p < .05$ . The overall regression model was highly significant,  $F = 4.64$ ,  $p < .001$ , explaining 21% of the variance in kindergarten readiness ( $R^2 = .27$ ; Adj.  $R^2 = .21$ ). In addition to the variables listed above, the following variables were included in the regression equation but were not statistically significant: English Learner status, ethnicity, income, an index of family-risk factors, frequency of reading at home, number of kindergarten preparation activities in which parents had engaged, use of local family resources, parent scores on a screener for mental illness, number of days between start of school and observation date, teachers' experience levels, and teachers' desired readiness levels.

### What can San Francisco do to make a difference in readiness in future years?

Data showed that students entered SFUSD kindergarten classrooms with many strengths, but that extra supports are needed to give all children an equal chance to succeed in school. These data should be used not just to inform, but also to catalyze and direct action. Although some links to readiness may not be mutable (e.g., gender, certainly, and to some extent maternal education), readiness advocates could focus in some important areas to close the readiness gap. For example, SFUSD, First 5, and community partners could:

- Continue to invest in early childhood education programs. Although many children entering SFUSD schools had been to preschool, the city is not yet at full saturation.
- Identify *Needs-Prep* students before they enter kindergarten in hopes of providing summer enrichment prior to school entry. Eleven percent of

**Based on these data, SFUSD, First 5, and community partners should continue making investments in early childhood education and family support**

entering kindergarten students fall into this portrait – these students are just beginning to learn the gamut of readiness skills. Without intervention, these children are at risk of remaining behind and achieving at lower levels in English and math at later grades (ASR, 2008). Results of the longitudinal study suggest that directing these children to a more intensive kindergarten transition program may be helpful at closing the readiness gap (ASR, 2008). Analysis of children’s home zip codes does point to a few neighborhood areas in which such readiness interventions might be targeted.

Neighborhoods such as the South of Market / Mission Dolores / Treasure Island areas, the Inner Richmond / Outer Richmond area, the South of Market / Potrero Hill / Mission / Bernal Heights area, Bayview-Hunters Point, and Visitacion Valley have relatively high percentages of *Needs-Prep* students. Such students would benefit from comprehensive training across the *Basic Building Blocks*.

- Expand the focus on schools, determining to what extent schools are ready for the diversity of children who enter kindergarten each year. Results underscore that some classrooms are filled with *All-Star* students, whereas other classrooms have a much higher proportion of children with readiness needs. Teachers of these latter classrooms may need extra supports to build basic skills in their students before children are ready for the kindergarten curriculum.
- Continue to provide early educators and elementary teachers with professional development around fostering *Self-Regulation* skills (e.g., controlling impulses, participating in circle time, working and playing with peers). Thirty percent of children entered kindergarten far below where their teachers would like them to be on *Self-Regulation* skills. Teachers also rated this area as one of the most important for kindergarten entry, and one of the most difficult to impact. Children who struggle in this area may cause disruptions in the classroom environment, making it more difficult for all children in the classroom to learn. The district may want to gauge how teachers currently address these issues, and whether there are any best-practice curricula or teaching tips that may make a difference.
- Expand access to developmental screenings. Although medical, dental, vision, and hearing assessments were quite common, far fewer children had had a developmental screening prior to kindergarten entry (20%). If the district pushed for universal developmental screening in preschools, a far greater percentage of children would be assessed (72% of children were enrolled in a preschool), and presumably, the particular needs of more children would be identified prior to school entry.
- Strengthen systems of parenting support and extend support to all families in need. Some parents reported significantly less access to support and coping resources than others ... parents of children who were English Learners, families of Chinese descent, and economically disadvantaged

**Readiness advocates might focus in the following areas:**

- **Offer readiness interventions in areas with high proportions of Needs-Prep students**
- **Continue to provide professional development around fostering Self-Regulation skills**
- **Expand access to developmental screenings**
- **Strengthen systems of parenting support and extend to as many families as possible**

families reported less access. Yet access to social support was one of the stronger family factors associated with higher readiness.

- Continue to ensure that preschools across the county have access to parent materials on child development, healthy parenting practices, and easing the kindergarten transition. Encourage families to take advantage of these informational resources. Of children who had attended preschool, at most 40 percent of families reported receiving information about child development.
- Build continuity between early education programs and elementary schools. By encouraging dialogue between preschool teachers and kindergarten teachers, readiness advocates can work on aligning expectations to ensure that teachers are focused on the most important competencies prior to kindergarten entry and beyond.

In sum, these baseline data show that over half of children entering SFUSD kindergarten classrooms are well-rounded and well-prepared for kindergarten. However, about 45 percent of children need extra supports in the social-emotional arena and/or in *Kindergarten Academics*. Longitudinal research shows that such gaps in readiness become achievement gaps as children progress through school. SFUSD and First 5 share a strong commitment to closing the achievement gap by building community partnerships and making investments in fostering school readiness.

**Readiness advocates might also:**

- **Ensure all preschools have parent information on child development, parenting, and kindergarten transition**
- **Build continuity between early education programs and elementary schools so that expectations are aligned**