



# SCHOOL READINESS in Alameda County

RESULTS OF THE FALL 2011 ASSESSMENT

District Report
LIVERMORE VALLEY JOINT
UNIFIED SCHOOL DISTRICT

RESEARCH STUDY FUNDED BY:







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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 ample time to a training, student observations, project management, and questionnaire completion. We gratefully acknowledge the assistance of the many individuals listed in Figure 1.

Figure 1. Participating Livermore Valley Joint Unified School District Schools and Teachers

Schools	Teachers	
	Carol Nese-Forte	
6 51	Jennifer Jow	
Smith Elementary	Leslie Williams	
	Rita Khoury	
	Debbie Anderson	
Marylin Avenue Elementary	Jan Bachtold	
	Lori Olsen	
Croce Elementary	Elise Allen	
	Julie Ashworth	
Joe Michell	Bobbi Matulich	
	Melanie Holsopple	
Arroyo Seco	Sally Gerlt	

#### **Study Summary**

#### **Background**

In 2011, First 5 Alameda County 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 Joint, New Haven, Oakland, Pleasanton, San Lorenzo, and San Leandro Unified School Districts. Among the Livermore Valley Joint Unified (LVJUSD) participants, 12 teachers from five different schools took part in the assessment.

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 might not be the same for students in the district who were not part of this study.

#### **Findings**

Research Question	Conclusion	Data Highlights
1. Are LVJUSD children ready for school?	Yes. Overall readiness score: 3.42	For each individual readiness skill, children were scored on a scale from Not yet (1) to Proficient (4). Average scores for each of 4 Basic Building Blocks of readiness range from 1 to 4.  Scores were high on all domains. Across all readiness dimensions, LVJUSD students had higher readiness levels than students in the county-wide assessment sample.
2. Are LVJUSD students meeting their teachers' expectations for readiness at kindergarten entry?	Yes.  85% at/above expected levels of proficiency	On their teacher survey, LVJUSD teachers indicated the level of proficiency they thought students should have to be "school ready" at kindergarten entry.  A large proportion of the LVJUSD students (85%) were meeting or exceeding teachers' expected proficiency levels for overall readiness. On Kindergarten Academics skills, 93 percent of students were at or above teachers' expected proficiency levels. The biggest gap between teacher expectations and students' skills was in Self-Regulation, where 59 percent of students met or exceeded their teachers' expectations.
3. What skills do LVJUSD teachers think are:	Most important: Basic self-help/self- care skills & stays focused	Teachers selected 5 readiness skills that they felt were: (1) most important to have at kindergarten entry; (2) easiest to impact during the school year; and (3) where they spent the most time during the school year.
Most important for kindergarten entry?  Easiest to impact?  Most time-consuming?	Easiest to impact: Recognizes basic colors  Spend the most time:	Self-Care & Motor Skills and Self-Regulation skills were chosen by teachers as the most important to have at kindergarten entry. Skills related to Kindergarten Academics were selected as being the easiest to impact, and skills related to Self-Regulation were identified as requiring the most time during the
	Recognizes letters & stays focused	kindergarten school year.

#### Study Overview

Children's school readiness levels at kindergarten entry have been increasingly recognized as playing an important role in children's later success in school. In late 2000, Applied Survey Research (ASR) was commissioned to develop research materials and a protocol to conduct assessments of Bay Area students' levels of readiness for school. The project resulted in the creation of a new tool to measure school readiness, which balanced and met two (sometimes competing) needs: (1) the need for a high-quality, valid, and reliable instrument to measure readiness levels; and (2) the need for a tool that was simultaneously "teacher-friendly" and sensitive to the measurement challenges inherent in a typical kindergarten classroom setting.

The *Kindergarten Observation Form (KOF)* was first implemented in San Mateo County in 2001, and since that initial assessment, readiness assessments have also been conducted in Santa Clara County, Lake County (Illinois), San Francisco County, Marin County, Santa Cruz County, San Benito County, Del Norte County, and throughout the network of providers in the Los Angeles Unified Preschool (LAUP). To date, approximately 30,000 students have been measured using the *KOF*.

In Fall 2008, First 5 Alameda County (F5AC) commissioned ASR to conduct its first assessment of the school readiness levels of new kindergarten students in a small set of three school districts in Alameda County. Assessments were again conducted in 2009, 2010, and 2011, with additional schools and districts taking part in each subsequent study. Participants in the 2011 assessment included students from nine districts: Castro Valley, Fremont, Hayward, Livermore Joint, New Haven, Oakland, Pleasanton, San Lorenzo, and San Leandro Unified School Districts. Participating kindergarten teachers were trained to conduct the readiness assessment, which included completion of the following forms:

- The Kindergarten Observation Form (I and II), in which teachers assess children's readiness skills and the smoothness of their transition to kindergarten, respectively;
- A Parent Information Form (PIF), which parents complete to provide information about children's early care and education experiences prior to kindergarten, family environments, and basic demographic and socioeconomic information; and
- The *Teacher Survey on Importance of Readiness Skills*, which measures teachers' beliefs about readiness and the skills required for successful transition to kindergarten.

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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."

Parent Information Form
Information Form

Assessment of School Readiness

Figure 2. Sources of Information to Assess the Readiness of Incoming Kindergarten Students

This short report summarizes key Fall 2011 findings for participating teachers, students, and families in the Livermore Valley Joint Unified School District. A summary of the completion metrics for the district follows. Seventy-five percent of parents agreed to have their child take part in the study, and of those, 96 percent also returned a parent survey. In all, Livermore Valley Joint Unified students represented 201 of the 1,597 participants (13%) in the county-wide sample.

Figure 3.	Completion Metrics – Alameda County School Readiness Assessment

Data	Livermore Valley Joint Unified sample	Alameda County sample (9 districts)
Number of schools participating in 2011 school readiness assessment	5	41
Number of participating classrooms	12	88
Number of children in these classrooms	267	2,072
Number of KOFs returned	201	1,597
Parent consent rate	75%	77%
Number of PIFs that were matched to a KOF	193	1,336
Parent PIF response rate (# PIFs received/ # consents)	96%	83%

The sections that follow include a brief summary of who the Livermore Valley Joint Unified students participating in the assessment were, what their school readiness levels were found to be, and what the participating teachers believed about school readiness. This summary also includes information from the county-wide study describing the child and family factors that were found to have the strongest associations with high levels of readiness at kindergarten entry.

While reading through this summary, it is important to keep in mind that schools and teachers participated in the readiness study voluntarily, which 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 district-wide, the findings cannot be extrapolated to the district-level population as a whole.

#### **Student Characteristics**

Fifty-three percent of participants in the Livermore Valley Joint Unified School District Fall 2011 readiness assessment were girls and 47 percent were boys. The average age of students was 5.35 years old (just over 5 years and 4 months). Caucasian students were the largest racial/ethnic group in the sample, comprising 56 percent of students. Five percent of students were identified as having special needs; another 9 percent of students were suspected to have a special need by their teacher or parent, but had not been formally diagnosed as having special needs.

Figure 4. Students' Sex, Age, Race/Ethnicity, and Special Needs

Student Characteristics	Percent of students
Sex	
Boys	47%
Girls	53%
Age at kindergarten entry	
Between 4 1/2 and less than 5	16%
At least 5 and less than 5 1/2	54%
At least 5 1/2 and less than 6	28%
6 and older	3%
Race/ethnicity	
Caucasian	56%
Hispanic/Latino	30%
Multi-racial	8%
Asian	3%
Filipino	2%
African American	1%
Special needs status	
Has special needs	5%
Teacher or parent suspects an as-yet-undiagnosed	
special need	9%
Does not have special needs	87%

Source: Kindergarten Observation Form I (2011).

Note: Sample size =200,200,198, 200, respectively. Percentages may not sum to 100 due to rounding.

Teachers from five schools in the district took part in the study. Among the sampled students in these five schools, Marylin Avenue Elementary had a much higher population of Hispanic/ Latino students (71%) than did the other four schools. Arroyo Seco, Smith, and Croce had large percentages of Caucasian students among those sampled (86%, 73%, and 68% respectively).<sup>2</sup>

Figure 5. Students' Race/Ethnicity by School

	School				
Race/Ethnicity	Arroyo Seco	Croce	Joe Michell	Marylin Avenue	Smith
Hispanic/Latino	5%	16%	37%	71%	9%
African American	5%	0%	3%	0%	0%
Caucasian	86%	68%	54%	17%	73%
Filipino	5%	5%	0%	2%	0%
Multi-racial	0%	11%	6%	8%	11%
Asian	0%	0%	0%	2%	7%

Source: Kindergarten Observation Form I (2011).

Note: Sample size =22, 19, 35, 52, 70, respectively. Percentages may not sum to 100 due to rounding.

Thirty percent of Livermore students in the sample were English Learners. As Figure 6 shows, 76 percent of students spoke English as their preferred language, and Spanish was the preferred language of 23 percent of the students.

Figure 6. Student Language Variables

Children's Language	Percent
English Learners	30%
Not English Learner	70%
Preferred language	
English	76%
Spanish	23%
Filipino or Tagalog	1%
Vietnamese	<1%

Source: Kindergarten Observation Form I (2011).

Note: Sample size = 195, 201. Percentages may not sum to 100 because more than one preferred language could have been chosen.

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Please keep in mind that these school-level data points (as well as all data in this report) reflect the <u>sampled</u> students only, and may not reflect the schools' student populations as a whole

When English Learner status was broken down by school, Marylin Avenue had the highest percentage of English Learners (74%), followed by Joe Michell (31%).

Figure 7. English Learner Status by School

	School				
	Arroyo Seco	Croce	Joe Michell	Marylin Avenue	Smith
English Learner	9%	5%	31%	74%	10%
Not English Learner	91%	95%	69%	26%	90%

Source: Kindergarten Observation Form I (2011).

Note: Sample size =22, 20, 36, 50, 67 respectively. Percentages may not sum to 100 due to rounding.

Children in the district had spent time in a range of early care settings in the year prior to starting kindergarten. For 66 percent of students, a parent served as the child's usual source of child care (either alone or in combination with other child care sources). A large percentage of students (79%) had attended a licensed child care center or preschool, including Head Start, state-funded, private, or other licensed program.

Figure 8. Students' Early Care Experiences

Type of Child Care Arrangements	Percent of students
Parent provided usual child care	66%
Relative or neighbor	18%
Babysitter or nanny	5%
Licensed care in someone's home (teacher or parent report)	6%
Licensed preschool or childcare center (e.g., Head Start, State Preschool, private – teacher or parent report)	79%

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

Note: Percentages are based on the following sample sizes:.189,189,189,199. Percentages sum to more than 100 because more than one source of care could be selected.

## School Readiness of Livermore Valley Joint Unified Students

This section describes the readiness skills that students in Livermore Valley Joint Unified School District possessed as they entered kindergarten in Fall 2011. Students' skills are presented for each of the 24 readiness skills and according to two approaches that classify the skills into broader readiness dimensions, as follows<sup>3</sup>:

(1) skill groupings that align with the *National Education Goals Panel (NEGP)*, which has defined 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.

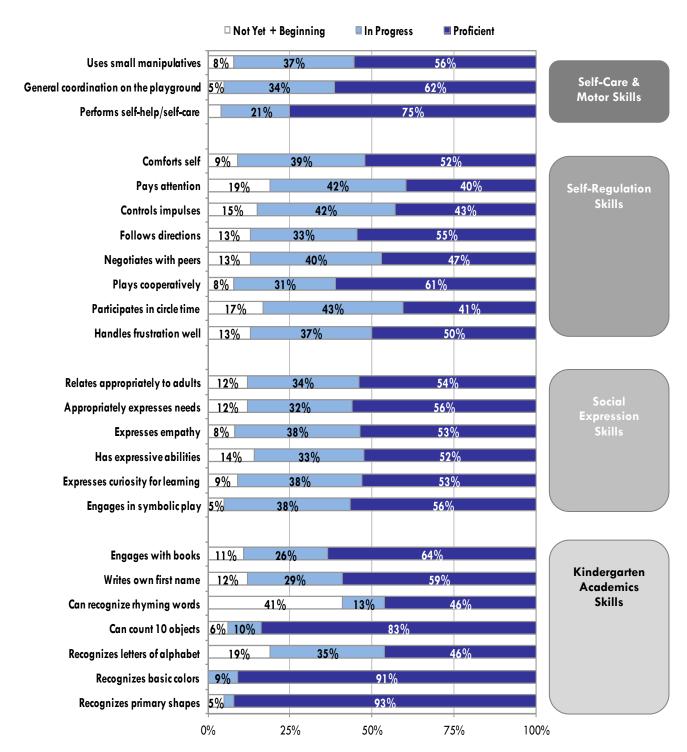
(2) skill groupings that correspond to four skill dimensions called the *Basic Building Blocks* of readiness, which have been defined by patterns of associations between skills that have been consistently observed across administrations of the *Kindergarten Observation Form*.

In addition, students' skills are presented in the context of what readiness levels teachers believe are necessary for successful transition into kindergarten. Finally, recognizing that there are identifiable readiness patterns of strengths and needs among entering kindergarten students, four "readiness portraits" are described.

Students' scores on the 24 readiness skills are shown in Figure 9 that follows.

<sup>3</sup> A "crosswalk" of how the 24 skills map onto each of the two readiness classifications is included as Appendix 1.

Figure 9. Students' Proficiency Levels Across 24 School Readiness Skills



Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 183-201 students. Don't know/ Not observed responses are not included. Percentages less than 5% are not labeled. Percentages may not sum to 100 due to rounding.

Students' top five readiness strengths and challenges are presented below. Livermore students came into school strongest on abilities related to *Kindergarten Academics* such as knowing colors and shapes. They were also well-prepared in their *Self-Care & Motor Skills*. The skills they were still developing included recognizing rhyming words and letters, as well as several *Self-Regulation* skills.

Figure 10. Students' Top Five Readiness Strengths

Top five strengths	Basic Building Block	Students' average score (out of four possible)
1. Recognizes basic colors	Kindergarten Academics	3.91
2. Recognizes primary shapes	Kindergarten Academics	3.88
3. Can count 10 objects correctly	Kindergarten Academics	3.77
4. Performs basic self-help/self-care tasks	Self-Care & Motor Skills	3.69
5. Has general coordination on the playground	Self-Care & Motor Skills	3.55

Source: Kindergarten Observation Form I (2011).

Note: Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=beginning, 3=in progress, 4=proficient. Scores are based on 193-201 students.

Figure 11. Students' Top Five Readiness Challenges

Top five challenges	Basic Building Blocks	Students' average score (out of four possible)
1. Recognizes rhyming words	Kindergarten Academics	2.80
2. Stays focused/pays attention during activities	Self-Regulation	3.16
3. Participates successfully in circle time	Self-Regulation	3.19
4. Controls impulses and self-regulates	Self-Regulation	3.23
5. Recognizes letters of the alphabet	Kindergarten Academics	3.25

Source: Kindergarten Observation Form I (2011).

Note: Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=beginning, 3=in progress, 4=proficient. Scores are based on 191-200 students.

The 24 readiness skills can be further grouped according to different categories of readiness. Two of the ways that readiness dimensions have been described are presented here, including: (1) five developmental domains identified by *NEGP*; and (2) a data-driven sorting of readiness skills, called the *Basic Building Blocks* of readiness.

In Figure 12, Livermore students' readiness scores are displayed according to five *NEGP* categories, with an additional category (not part of the *NEGP*) comprising a "coping skills" dimension. As the figure shows, Livermore students were strong in all domains of readiness, with particular strengths in *Cognition & General Knowledge*.

Livermore students ■ Alameda County students 4.00 3.57 3.56 3.45 3.38 3.37 3.27 3.28 3.24 3.20 3.18 3.00 3.00 2.00 Physical Well-Being Social & Emotional Approaches Toward Communication & Cognition & General Coping Skills (Not & Motor Development Learning Language Usage Knowledge from NEGP) Development

Figure 12. Students' Proficiency across the Five NEGP Readiness Dimensions

Source: Kindergarten Observation Form I (2011).

Note: Means can range from 1 to 4. Scale points are as follows: 1=not yet, 2=beginning, 3=in progress, 4=proficient. Scores are based on 200-201 Livermore students and 1,541-1,595 county-wide students.

Statistical exploration of children's performance across 24 readiness skills revealed that skills reliably sorted into an alternate readiness skills framework, which has been labeled the four *Basic Building Blocks* of readiness:<sup>4</sup>

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

Figure 13 that follows shows students' readiness according to the four *Basic Building Blocks* of readiness. Readiness levels among Livermore students were highest in *Self-Care & Motor Skills*, and they were lowest in *Self-Regulation*.

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<sup>&</sup>lt;sup>4</sup> A procedure called factor analysis is used to determine what readiness dimensions are represented by the data.

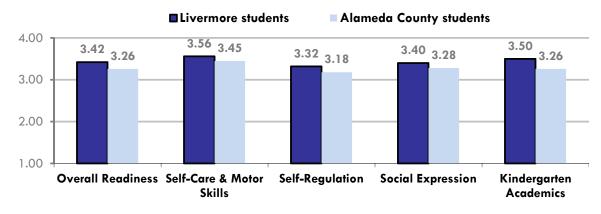


Figure 13. Students' Proficiency across Four Basic Building Blocks of Readiness

Note: Means can range from I to 4. Scale points are as follows: I=not yet, 2=beginning, 3=in progress, 4=proficient. Scores are based on 200-201 Livermore students and I,586-I,595 county-wide students.

Although knowing these readiness levels is instructive for understanding relative strengths and needs of students – as well as how Livermore students compare with other students in the county – they do not address the question of how ready is "ready enough" for school. To provide some context for understanding students' readiness levels, as part of the teacher survey they completed, participating Livermore teachers were asked to indicate the level of proficiency that they believed children should have on each of the 24 assessed skills in order to be school-ready. (More information on the results of those surveys can be found in the section that follows.) These ratings were compiled for the four Basic Building Blocks readiness dimensions and the percentage of children who met or exceeded those levels of proficiency was computed. The figure that follows presents the percentage of students who met or exceeded the average levels of readiness that Livermore teachers believed they should have to be ready for school.

Overall, 85 percent of the students assessed in the Livermore Valley Joint Unified classrooms were at or above the readiness levels their teachers thought they should have at kindergarten entry. The largest percentage of students were prepared (according to teachers' expectations) on *Kindergarten Academics* skills; the largest gap in actual versus desired levels of readiness occurred in *Self-Regulation* skills.

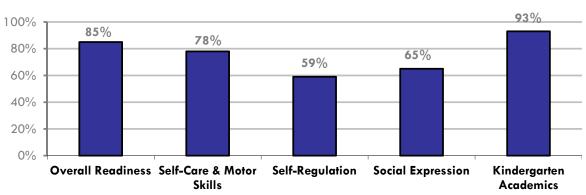


Figure 14. Percentage of Children Meeting or Exceeding the Readiness Levels Teachers Felt They Needed for a Successful Transition

Source: Kindergarten Observation Form I (2011).

Note: Percentages are based on 200-201 Livermore students. Percentages are based on students meeting the average expectations of all Livermore teachers, rather than each student's own teacher.

Children also exhibited different <u>patterns</u> of readiness strengths and challenges. For a more detailed look at different patterns of readiness, children were sorted into one of four *Readiness Portraits* based on their pattern of proficiency across the readiness skills.<sup>5</sup> The dark shading in Figure 15 shows where children in each of the four portraits are at or near proficiency on the associated skills.

Figure 15. Four Readiness Portraits

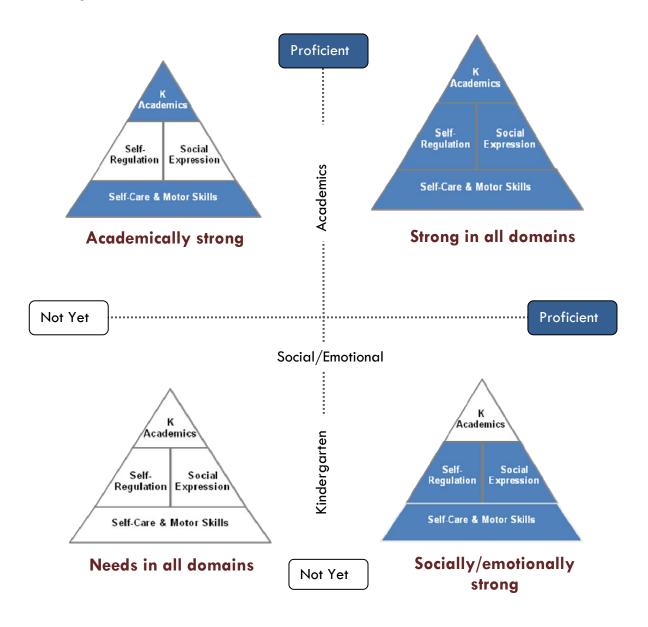


Figure 16 on the following page shows the percentage of Livermore and county-wide students who sorted into each of the four *Readiness Portraits*.

• Strong in all domains: Over half (59%) of the assessed Livermore students entered kindergarten classrooms at or near proficiency across all four Basic Building Blocks of

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<sup>&</sup>lt;sup>5</sup> Children were sorted into one of the four *Readiness Portraits* via a data-driven technique called cluster analysis.

readiness (corresponding to the pattern of readiness displayed in the upper right quadrant of Figure 15).

- Needs in all domains: Six percent of students had significant readiness needs across all four skill domains. These students had not yet learned or were just beginning to learn almost all of the 24 readiness skills (lower left quadrant of Figure 15).
- Academically strong: Consistent with the readiness pattern shown in the upper left of
  Figure 15, one-third (33%) of Livermore students entering kindergarten had strong skills in
  their early academics (and Self-Care & Motor Skills) but demonstrated some challenges in
  the social-emotional areas of readiness especially skills within the Self-Regulation
  dimension.
- Socially/emotionally strong: Three percent of Livermore 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 (lower right quadrant of Figure 15).

■ Strong in all domains Livermore students 59% 33% 3%6% Academically strong ■ Socially/Emotionally strong **Alameda County students** 51% 33% 6%9% □ Needs in all domains 0% 20% 40% 60% 80% 100%

Figure 16. Prevalence of Four Portraits of Students' Readiness

Source: Kindergarten Observation Form I (2011).

Note: This chart is based on 200 Livermore students and 1,572 county-wide students.

## An Overview of Livermore Valley Joint Unified School District Teacher Beliefs

The Teacher Survey on Importance of Readiness Skills included a number of questions asking teachers to provide their opinions about students' readiness for school – including what proficiency levels they think are required for success in school (briefly described in the previous section), as well as the skills that they think are most important for school entry, the skills they believe are easiest to impact, and on which skills they spend the most time.

Figure 17 shows the average levels of proficiency that the participating Livermore Valley Joint Unified kindergarten teachers thought their students should have when they enter school. As Figure 14 in the previous section showed, the majority of Livermore students were above these levels on all of the four *Basic Building Blocks* dimensions. The Livermore teachers expected the highest proficiency on *Self-Care & Motor Skills and Self-Regulation* and the least proficiency on *Kindergarten Academics*.

3.00
2.94
3.17
3.14
3.04
2.52

Overall Readiness Self-Care & Motor Self-Regulation Social Expression Kindergarten Skills

Academics

Figure 17. Teachers' <u>Desired</u> Levels of Proficiency on the *Basic Building Blocks* of Readiness

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

Note: Means can range from I to 4. Scale points are as follows: I=not yet, 2=beginning, 3=in progress, 4=proficient. Means are based on I2 Livermore teachers.

When Livermore teachers were asked to choose only five skills that they believed were <u>most</u> important for entry into kindergarten, self-help/self-care skills were selected by almost all of the teachers, as was staying focused/paying attention during activities.

Figure 18. Skills Most Often Selected by Teachers as One of Five Most Important for Kindergarten Entry

School Readiness Skills	Basic Building Block	Number of teachers selecting
Performs basic self-help/self-care skills	Self-Care & Motor Skills	10
Stays focused/pays attention during activities	Self-Regulation	9
Controls impulses and self-regulates	Self-Regulation	7
Follows one- to two-step directions	Self-Regulation	6
Appropriately expresses needs and wants	Social Expression	5
Handles frustration well	Self-Regulation	5

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

Note: Scores are based on 12 Livermore teachers.

Livermore teachers also chose five skills that they believed to be the easiest for them to impact during the kindergarten year. Most teachers selected skills from the *Kindergarten Academics* dimension. Seven of the 12 teachers also selected use of small manipulatives, a skill from the *Self-Care & Motor Skills* domain:

Figure 19. Skills Most Often Selected by Teachers as One of Five Easiest to Impact

School Readiness Skills	Basic Building Blocks	Number of teachers selecting
Recognizes basic colors	Kindergarten Academics	8
Recognizes letters of the alphabet	Kindergarten Academics	7
Uses small manipulatives	Self-Care & Motor Skills	7
Engages with books	Kindergarten Academics	7
Counts 10 objects correctly	Kindergarten Academics	7

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

Note: Scores are based on 12 Livermore teachers.

Finally, teachers in Livermore Valley Joint Unified prioritized the five skills on which they spent the most class time. The majority of the teachers agreed they spent a great deal of their time on letter recognition (*Kindergarten Academics*) and helping their students stay focused/pay attention (*Self-Regulation*). Additional *Self-Regulation* skills were prominent among the skills selected by teachers as being most time-consuming during the kindergarten school year.

Figure 20. Skills Most Often Selected by Teachers as One of Five on Which They Spend the Most Time

School Readiness Skills	Basic Building Blocks	Number of teachers selecting
Recognizes letters of the alphabet	Kindergarten Academics	8
Stays focused/pays attention during activities	Self-Regulation	8
Controls impulses and self-regulates	Self-Regulation	6
Negotiates with peers to resolve social conflicts	Self-Regulation	6
Works and plays cooperatively with peers	Self-Regulation	5
Recognizes rhyming words	Kindergarten Academics	5

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

Note: Scores are based on 12 Livermore teachers.

#### Factors Related to Alameda County Students' Readiness

Because some children enter school more ready to succeed than others, an important goal of any readiness study is to understand the factors that are related to stronger readiness skills at kindergarten entry. As part of the comprehensive readiness study, a **multivariate analysis** was conducted to examine the possible underlying reasons children are more or less prepared for school. This approach allows us to look at how a set of variables are related to readiness levels -- above and beyond their associations with other factors. For example, we can examine how preschool experience is related to readiness levels after ironing out children's differences on other factors that <u>also</u> tend to be related to preschool experience, such as income and parent education levels. This section briefly presents results from this multivariate analysis. (It is important to keep in mind that these results represent findings for all students throughout the nine districts who participated in the study and are not specific to Livermore students.)

The following variables, which fall into one of five general categories listed below, were included in the analysis looking at predictors of readiness:

- Child variables: Child 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, 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 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 21 shows the results of this analysis; depicted are those factors that are significantly related to overall kindergarten school readiness after taking into account all of the other variables. 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.

Child does not come to school hungry/tired/ill

Child has no special needs

Child is older

Family income is higher

Child is a girl

Child attended preschool

Child's mother has higher education level

Child was not born with low birth weight

Parent has more positive parenting attitudes

Figure 21. 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 = 21.83, p < .001, explaining 32% of the variance in kindergarten readiness ( $R^2 = .34$ ; Adj.  $R^2 = .32$ ).

#### Conclusions and Recommendations

Preschool experience is a consistently strong predictor of readiness levels among entering kindergarteners. Among the sampled Livermore Valley Joint Unified students, preschool attendance rates are quite high – higher than in many other districts, which likely contributes to the generally strong readiness levels of students. The district and its community partners should continue to promote the availability of high-quality early education experiences for local children – and to look for new opportunities to reach out to those children who are not currently exposed to quality preschool programs prior to starting kindergarten. One example is the First 5 Summer Pre-K Program, which offers quality early childhood experience to children with no preschool or licensed childcare experience.

The majority of students in Livermore Valley Joint Unified School District are entering kindergarten ready for school. Most students (85%) are meeting their teachers' expectations, and over half of students demonstrate strong readiness levels across all four domains of readiness. If there are needs among Livermore students, they are arguably in the development of skills that relate to *Self-Regulation*; this domain has the lowest average readiness levels and the greatest number of students who are not meeting teachers' expected proficiency levels. This is particularly important in light of recent findings suggesting that a combination of strong skills in <u>both</u> *Kindergarten Academics* and *Self-Regulation* was associated with the strongest likelihood of success on third grade English-Language Arts and Mathematics tests.

To help address needs related to social-emotional development:

- Prior to kindergarten, parents and early care and education providers can work on developing children's skills related to emotional regulation and self-control. This is an ongoing need, as several readiness studies have shown that although preschool experience is associated with strong gains in *Kindergarten Academics*, there is no associated benefit for the social-emotional domains of readiness.
- In kindergarten, teachers and district staff can develop strategies and ensure that curricula are addressing entering students' developmental needs related to *Self-Regulation*.

Findings from the county-wide study of readiness also suggest that districts should continue to monitor factors such as student and family well-being and ensuring early identification and support for students with special needs, as these are associated with readiness levels. Districts should also be aware of those factors they cannot impact, but that nonetheless help them understand and predict the readiness levels of their current and future kindergarteners, such as family income and education levels and children's age.

Finally, as in previous years of district readiness study summaries, we include information about how other schools and districts have used readiness data to promote their students' development and fulfillment of their educational potential. Individual districts, schools, teachers, and communities are encouraged to reflect on their own readiness findings and discuss ways that this data can help guide and inform action in their own schools and communities. Some recent examples of school readiness data informing school and community action include the following:

- In San Lorenzo Unified School District, data from previous school readiness assessments
  have provided important evidence to support increasing the district's funding of summer
  pre-k programs and access to year-long preschool programs. With these data, they could
  justify the attention, cost, and resources for supporting preschool experiences for their
  underserved families.
- Livermore Valley Joint Unified School District has used data from recent readiness studies to support their applications for federal and city grants, and they intend to use the data to encourage the district to continue supporting preschool for their students.
- In Santa Clara, San Mateo, and San Francisco counties, county-wide readiness assessments conducted every 2-3 years have helped to track population-level trends in entering kindergarten students over time, in order to monitor changes in important predictors of readiness (such as preschool attendance rates) as well as student readiness levels. For Santa Clara County in particular, this has allowed them to demonstrate that focused intervention and support for low-income families have been related to readiness improvements in this population.
- Both Santa Clara and San Mateo counties have used data they have collected on the
  readiness of kindergarten students to show that readiness levels particularly in the
  Kindergarten Academics and Self-Regulation Basic Building Blocks strongly predict
  performance on third grade standardized tests, thus further supporting the need for strong
  interventions that begin even before a child begins kindergarten.
- Several Bay Area school districts have used the *Kindergarten Observation Form* and a parallel preschool version of the form (the *Pre-Kindergarten Observation Form* [*P-KOF*]) to build connections between their pre-K and K-12 education systems and the providers in each. When preschool providers have used the *P-KOF* alongside kindergarten teachers using the *KOF*, this facilitates the development of a common language and set of expectations for discussing children's readiness and how providers in both systems can support it.
- One local, recently-developed, short-term pre-K program has also used findings from their student P-KOF assessments to shape their curriculum to better support the needs of their students, and they have used it as a reflective practice tool for their providers.
- Importantly, several Northern California regions have used their readiness data to develop resources for parents who have a child who will soon enter (or has recently entered) kindergarten. These resources include high-quality, easy-to-read parent handbooks organized around the four *Basic Building Blocks*. The handbooks provide information about the types of readiness skills children need and how to promote children's development of those skills at home. In addition, in response to findings that showed that families who used more local community resources had children with better readiness outcomes, one local First 5 has partnered with other organizations in their community to provide parents with passes to enrichment activities, such as the zoo, to support children's learning.

# Appendix 1: 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
Can recognize rhyming words	Communication & Lang	Kindergarten Academics
Engages with books	Communication & Lang	Kindergarten Academics
Engages in symbolic/imaginative play	Cognition & Gen'l Knowledge	Social Expression
Can count 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 with adult guidance	N/A	Self-Regulation
Negotiates with peers to resolve social conflicts with adult guidance	N/A	Self-Regulation
Expresses empathy or caring for others	N/A	Social Expression
Handles frustration well	N/A	Self-Regulation