

Stanislaus County
School Readiness Evaluation
2007-2008

Part 2: Linking Outcomes to Services

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Executive Summary

Report Overview

Children served by Stanislaus County School Readiness (SR) programs are at risk for not succeeding in school. They come from families that struggle with poverty, lack of employment opportunities and health care, language difficulties, and low educational attainment. The intent of the School Readiness Initiative is to improve children's readiness for school through access to health services, parent education and family support, and a variety of early childhood education (ECE) experiences during early stages of development, while the children are between 0 and 5 years of age.

This report has two major goals. The first is to explore links between services and readiness for school at Kindergarten entry. The second is to examine developmental trends in recipients of school readiness services, by tracking children from Kindergarten through Grade 3. Data from 2,088 children and their families were examined to accomplish these goals. The children comprised five groups that differed in the level of services they received, ranging from extremely limited to highly intensive:

1. Limited Services
2. Transition Services
3. Basic Preschool
4. Preschool Plus Support Services
5. Intensive Services

This report focuses on four outcomes for these five groups: Kindergarten entry skills, parent involvement, literacy skills, and social-emotional skills.

Readiness for School at Kindergarten Entry

The results highlight two service clusters – Transition Services and Preschool Plus Support Services – as being particularly likely to yield good results in Kindergarten. The findings for the Intensive Services cluster are less encouraging. This group was characterized by the highest level of services and should have been associated with the most favorable outcomes. This expectation was only partially met. Families in the Intensive Services cluster exhibited greater parent involvement than families in other service clusters, while the children themselves were more ready for school at Kindergarten entry than children in other service clusters. However, these advantages did not translate into better classroom behavior or stronger pre-literacy skills. Specific differences between the service clusters are summarized below.

- Children who did not speak English at home had poorer **Kindergarten entry skills** than native English speakers. However, in both language groups, as children received more SR services their school readiness ratings tended to increase (see Figure 1). These results show the importance of SR services and highlight the importance of providing support services to ELL children and their families.
- **Pre-literacy skills** were lower in English language learners than in native English speakers, and differed reliably across the 5 service clusters. The best pre-literacy skills for English language learners were observed in the Transition Services cluster. This cluster also had strong pre-literacy skills for native

English speakers, but for this language group even better outcomes were associated preschool experience that included enhanced services (see Figure 2). These results point to the importance of SR services for literacy development. They also show the efficacy of summer transition programs in bridging the literacy gap for children who lack access to preschool.

- The results for **social-emotional skills** tended to mirror those for pre-literacy skills. English language learners received lower ratings than native English speakers, and had the best outcomes in the Transition Services cluster. Native English speakers in this cluster were also rated highly, but social-emotional skills for these children were even higher when they attended preschool and supplemented this with additional SR services (see Figure 3). Among English learners, preschool attendees actually did worse than those with limited services. These results suggest that transition programs play an important role in preparing children for the social environment of Kindergarten. They also raise the question of the relationship between preschool attendance and social skill development.
- **Parent involvement** also differed across levels of service, especially for parents of native English speakers. Parents whose children received intensive services were more involved in their children's education than parents in other service clusters (see Figure 4). The parents of English learners who received only limited services or basic preschool were less involved than those whose children attended transition programs or a preschool enhanced by additional services. These results point to the benefits of intensive services. They also demonstrate the value of transition programs and supplements to preschool for families that do not speak English at home.

Recommendations

1. SR programs should emphasize outreach and service to families who do not speak English at home.
2. SR programs should stress – or mandate – transition programs for children who do not attend preschool.
3. Children who attend preschool should continue to be offered SR services; preschool alone does not always yield the full spectrum of desired outcomes.
4. Investigations should be undertaken to determine why children in the Intensive Services cluster did not fulfill expectations regarding their pre-literacy and social-emotional skills.

Best Practices for School Readiness

The strategy employed in this report is to correlate variations in services across the sample with variations in outcomes. Although these correlations in no way indicate that a given service causes a particular outcome, they at least provide an indication of the degree to which services and outcomes are related. It is important to consider the many factors that may underlie a relationship between services and outcomes when interpreting correlational results.

- **Kindergarten entry skills** were associated with health care screenings and education programs, preschool attendance, free book programs, summer transition programs, pre-literacy programs, parent-child education, and family counseling.
- None of the services tracked in the Stanislaus County School Readiness Evaluation showed a positive correlation with Kindergarten **social-emotional skills**. It appears that existing services do not impact

the skills essential for creating a positive learning environment in classrooms. However, a number of services were negatively related to social-emotional skills, including behavioral/emotional counseling, Kindergarten enrichment, and family counseling. The families that received these services tended to have children with lower social-emotional skills.

- **Pre-literacy skills** showed a positive relationship with only one service: preschool. It appears that no one particular service has a substantial effect upon pre-literacy skills; pre-literacy skills reflect the interaction of many services.
- **Parent involvement** scores were positively correlated with almost all support services. The strongest correlation by far was to parenting classes and preschool attendance. It is impossible to determine from the current data whether these services enhanced parents' motivation to stay involved, or whether a preexisting motivation led parents to seek out services. Most likely, both processes occurred.

Recommendations

5. SR programs should continue to facilitate access to a health services and health education and provide a variety of early childhood education opportunities.
6. SR programs should expand the social-emotional aspects of their SR programs.
7. SR programs should use parenting classes to support parent involvement in children's learning, especially among families whose children do not attend preschool.

Sustaining Outcomes through Grade 3

Individual children were assessed longitudinally to identify trends in the development of literacy skills and social-emotional skills, and to determine if these trends differed with the level of services that children received. These comparisons were made for developmental changes from Kindergarten to Grade 1 for all five service clusters, with further extensions to Grade 3 for the Limited Services, Transition Services, and Basic Preschool service clusters.

- In all grade levels, **literacy skills** were more highly developed in native English speakers than in English language learners (see Figure 7). In both language groups, the best outcomes were observed in the Transition Services cluster. The Basic Preschool services cluster also yielded strong results for native English speakers, particularly in Grade 3.
- **Positive behaviors** were exhibited less often than desired at Kindergarten entry, and did not appear to improve in any of the five service clusters between Kindergarten and Grade 3 (see Figure 8). Children exhibited good **control of negative behaviors** at Kindergarten entry, and maintained a high level of control through Grade 3. These findings suggest that existing SR programs have essentially no impact on social-emotional development.

Recommendations

8. SR programs should consider implementing mandatory summer transition programs, particularly in districts that have a substantial number of English language learners.

9. SR programs that specifically target social-emotional development should be utilized by districts that value desirable classroom behavior.

I. Background and Methodology

Stanislaus County School Readiness (SR) projects are united by a common set of desired outcomes, even though the strategies used to achieve them may vary from school to school. The outcomes examined in this report are shown in Table 1.

Table 1: Stanislaus County Outcomes

Outcomes	Conceptual Definitions
Kindergarten readiness	The percent of children who have achieved the developmental assets and skills needed to succeed in Kindergarten
Literacy skills	The percent of children who have achieved grade-appropriate literacy skills
Social-emotional skills	The percent of children who display positive social behavior and control negative behavior in the classroom
Parent involvement	The percent of parents who are involved in their children’s education through literacy activities at home and participation in school activities

Kindergarten Sample 2002-2007

Kindergarten children entering Stanislaus County schools served by SR programs were assessed annually from 2002 through 2007. Two to four classes were assessed at each school, depending on class size. To assure a wide range of service usage, children were assessed regardless of participation in or access to SR programs. Special efforts were made to recruit “baseline” children, who entered Kindergarten before SR funding began. The five year sample included 3,134 children; Table 2 summarizes their demographic characteristics.

Table 2: Kindergarten Sample Characteristics

Characteristic	Kindergarten Sample
Gender	53.5% male and 46.5% female
Language Spoken At Home	49.3% English and 50.7% another language (predominantly Spanish)
Preschool Attendance	59.7% attended preschool and 40.3% did not
Parent education	54.2 % of fathers and 56.9% of mothers received a high school diploma

Five Levels of Service

Children and their families did not utilize SR services equally; some received many SR services, while others participated in very few. Furthermore, some services had high rates of co-utilization, which made it difficult to evaluate the outcomes associated with individual services. For example, vision and hearing checks tended to co-occur; most children received both services (83%) or neither service (8%). Thus, we could not accurately estimate the impact of vision checks independently of hearing checks.

In response to this problem, a cluster analysis was used to identify groups of children who tended to resemble each other in terms of the services they had received. The goal of the cluster analysis was to group children such that all of the children within each cluster had received approximately the same set of services. Clusters

were also designed to be as distinct as possible from one another, so that each represented a relatively unique combination of services.

Cluster analysis of the Kindergarten sample identified five groups of children that differed in the level of services they received (see Table 3). Each cluster can be described by the services typically received by members of that cluster. However, it is important to note that not all of the children in a given cluster received all of the services typical of that cluster.

Table 3. Clusters Based on Level of Services Received

Cluster Name	Number of students*	Services Received
Limited Services	1,016	Low percentage of children with preschool experience; children had health screenings and nutritional classes, but received few other services
Transition Services	320	Low percentage of children with preschool experience; children had health screenings and attended a Kindergarten transition program, but received few other services
Basic Preschool	223	High percentage of children with preschool experience; children had health screenings but few other services
Preschool Plus	410	High percentage of children with preschool experience; children had behavior checks and supplementary ECE services
Intensive Services	119	High percentage of children with preschool experience; children had behavior checks and intensive child services and supports

* N = 2,088 children; 255 Kindergarten children could not be clustered because of missing data regarding one or more services

As Table 4 illustrates, the gender distribution of each cluster was essentially identical. However, in many other respects, the children within different clusters were dissimilar. It is particularly noteworthy that some clusters included more English language learners than others, and the Intensive Services group was especially high. In previous evaluations, native language was an important predictor of some outcomes, suggesting that differences between clusters in this report should be interpreted with care.

Previous evaluations also identified preschool experience as an important predictor of some outcomes. However, the present evaluation makes no direct comparisons between children who had and who had not attended preschool. Such comparisons were already embedded within the cluster comparisons; preschool attendance was relatively infrequent in the Limited Services and Transition Services clusters, but widespread in the Basic Preschool, Preschool Plus, and Intensive Services clusters.

Table 4. Selected Cluster Characteristics

Characteristic	Cluster				
	Limited Services	Transition Services	Basic Preschool	Preschool Plus	Intensive Services
Gender	52.8% male	53.1% male	54.3% male	54.1% male	53.8% male
Native language	47.3% ELL	55.7% ELL	59.3% ELL	45.0% ELL	61.2% ELL
SR or baseline?	14.1% baseline	3.9% baseline	14.7% baseline	3.6% baseline	5.0% baseline
Predominant school district(s)	Modesto (31%) Turlock (29%)	Riverbank (43%)	Riverbank (25%) Modesto (23%) Turlock (23%)	Waterford (33%)	Modesto (61%)
Preschool experience	51.1%	42.3%	77.0%	90.9%	88.6%
Average no. of SR services, excluding pre-school	3.92	6.20	7.34	8.68	14.35
Transition program participation	0.0%	99.8%	29.9%	43.1%	69.3%
Kinder enrichment	17.4%	10.2%	15.5%	21.1%	34.0%
Received physical, dental, vision, and hearing checks	55.0%	70.2%	72.3%	84.3%	89.0%
Received mental health screening	9.6%	6.9%	25.9%	72.1%	72.2%
Participated in free book program	13.2%	40.5%	39.9%	84.3%	66.1%
Participated in pre-literacy program	2.0 %	19.5%	4.7%	74.6%	84.8%
Family received parenting education	6.2%	22.1%	43.7%	12.9%	90.4%

II. Improving School Readiness

Kindergarten Entry Skills

Kindergarten teachers used the *Adapted Desired Results Developmental Profile* to rate the personal and academic competencies of their students in 24 areas important for school success. The ratings were made 6-8 weeks after the start of Kindergarten. Teachers used a 4-point rating scale to indicate whether each skill was fully mastered, almost mastered, emerging, or not yet developed.

Children who did not speak English at home were rated as less ready for school than native English speakers. This difference may at least partially reflect difficulties that teachers have in rating the skills of children whose native language they do not, themselves, speak. However, in both language groups, school readiness ratings tended to increase as children received more SR services (see Figure 1). Children in the two clusters associated with the highest level of services (Preschool Plus and Intensive Services) were more frequently rated as ready for school than children in the three clusters characterized by lower service levels. Among English language learners, school readiness ratings for the three lowest service clusters did not differ reliably from each other. These results suggest the importance of SR services and illustrate the need to provide a high level of services to ELL children and their families.

Literacy Skills

The DIBELS (6th edition) was used to assess pre-literacy skills 16-24 weeks after the start of Kindergarten. During the assessment, children complete a series of timed English-language tests to gauge their fluency in skills essential for literacy development. Figure 2 shows the percentage of children whose skills were appropriate for their age (described as “emerging” or “established” by the DIBELS scoring system).

As with Kindergarten entry skills, pre-literacy skills were stronger in native English speakers than in English language learners, and differed reliably across the five service clusters. In both language groups, children in the Transition Services cluster exhibited stronger pre-

Figure 1. Kindergarten Entry Skills by Service Cluster

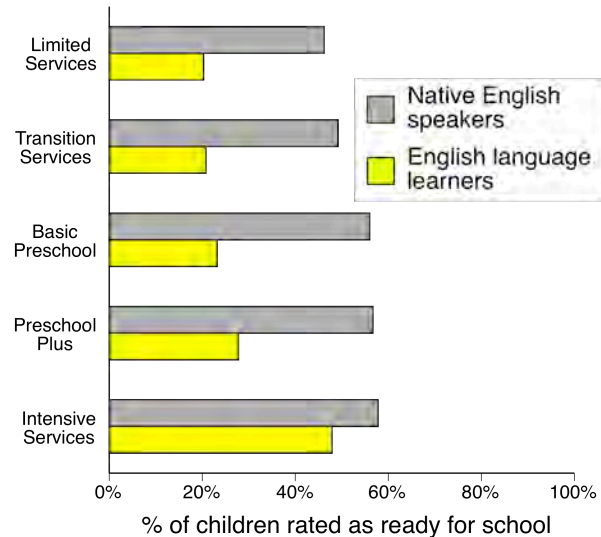
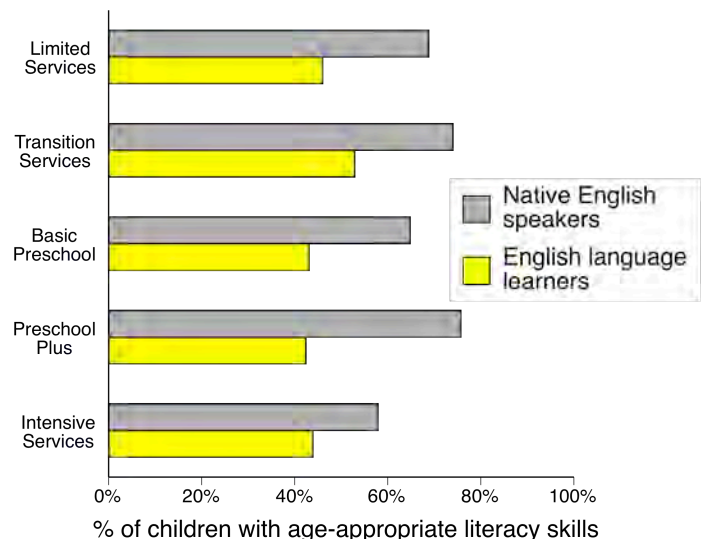


Figure 2. Early Literacy Skills by Service Cluster



literacy skills than children in the Limited Services and Basic Preschool clusters. Among native English speakers, pre-literacy skills were strongest in the Preschool Plus service cluster. Surprisingly, children in the Intensive Services did not show a literacy advantage over children who received fewer services. These results suggest that SR services may facilitate literacy development, and that summer transition programs may be particularly helpful in fostering literacy development for children who lack access to preschool.

Social-Emotional Skills

Children’s social skills were assessed at mid-year by asking Kindergarten teachers to rate the frequency with which each child exhibited 3 positive behaviors and 3 negative behaviors. Teachers indicated whether each behavior occurred never, sometimes, often, or very often. Figure 3 shows the percentage of children who exhibited the positive behaviors often or very often, and who never or only sometimes exhibited the negative behaviors.

Overall, children in the Transition Services cluster demonstrated better classroom social skills than children in other service clusters. Native English speakers exhibited desirable classroom behaviors most consistently in the Preschool Plus service cluster, while native English speakers in the two other service clusters with high rates of preschool experience (Basic Preschool and Intensive Services) were less likely to exhibit desirable classroom behavior. In fact, English speakers in the two latter service clusters were no more likely to exhibit desirable classroom behavior than English speakers in the Limited Services cluster.

Among English learners, two clusters with high rates of preschool attendance (Basic Preschool and Preschool Plus) exhibited poorer classroom behavior than the Limited Services cluster. Classroom behavior in the third cluster with a high rate of preschool attendance – Intensive Services – was comparable to that seen in the Limited Services and Transition Services clusters.

These results suggest that transition programs may play an important role in preparing children for the social environment of Kindergarten. They also raise the question of the relationship between preschool attendance and social skill development.

Parent Involvement

SR programs urge families to stay involved with their children’s education by visiting their children’s schools and practicing learning activities at home. Questions on the *Family Background Survey*,

Figure 3. Kindergarten Social Skills by Service Cluster

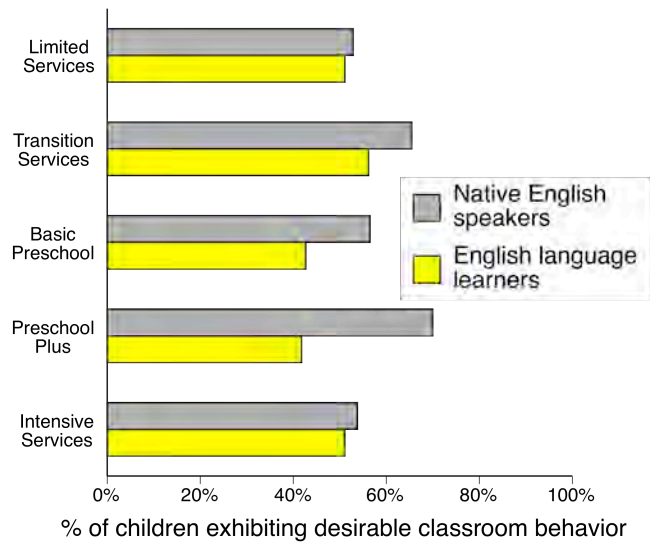
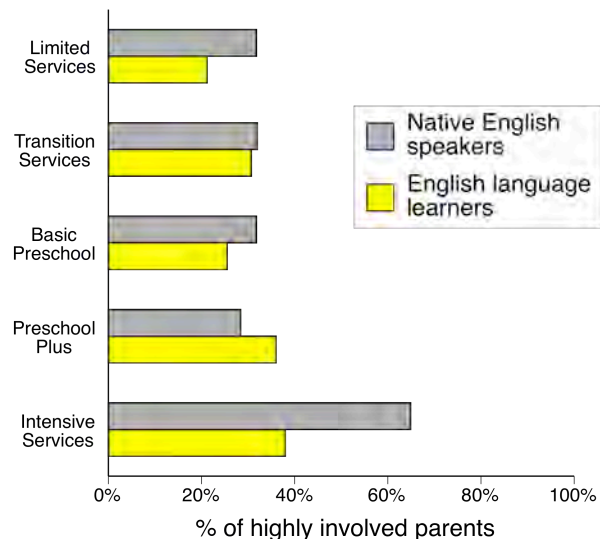


Figure 4. Parent Involvement by Service Cluster



conducted in an interview format during the first 2 months of Kindergarten, asked about these activities. Three questions in the interview pertained to home activities (such as whether or not the parents read to their children on a daily basis) and two interview questions asked the parents how often they had observed their children's classroom and met their children's teacher. The responses were combined to identify parents with a high level of involvement in their children's education (see Figure 4).

Parent involvement was highest in the Intensive Services cluster. This pattern emerged in both language groups, but was particularly evident for parents of native English speakers. The parents of English language learners tended to be less involved when their children were in the Limited Services or Basic Preschool cluster than when their children were in the Transition Services or Preschool Plus clusters.

These results point to the benefits of intensive services; parents whose families received these services stayed more involved in their children's learning. The data also suggest that, for families who do not speak English at home, parental involvement is fostered by transition programs (when children do not attend preschool) and supplemental services (when children do attend preschool).

Service Cluster Differences in Kindergarten

The findings reviewed above highlight two service clusters – Transition Services and Preschool Plus – as being particularly likely to yield good results in Kindergarten. The findings for the Intensive Services cluster are less encouraging. This cluster was characterized by the highest level of services and was, therefore, expected to be associated with the most favorable outcomes. This expectation was met for two outcomes: Families in the Intensive Services cluster exhibited greater parent involvement than families in other service clusters, while the children themselves were more ready for school at Kindergarten entry than children in other service clusters. However, these advantages did not translate into stronger pre-literacy skills, while the findings for classroom behavior were mixed: social-emotional skills in the Intensive Services cluster were weaker than expected for native English speakers, but stronger than expected for English language learners (given the generally low levels of desirable classroom behavior among these children in the Basic Preschool and Preschool Plus service clusters).

The reasons for the weak pre-literacy skills and sporadic social-emotional skills in the Intensive Services cluster are not clear. In our sample, parent involvement was only weakly predictive of pre-literacy skills ($r = .06$), and was unrelated to classroom behavior ($r = .03$). However, school readiness scores were strongly correlated with both pre-literacy skills ($r = .40$) and classroom behavior ($r = .36$). Thus, the above-average school readiness scores observed in the Intensive Services cluster justified the expectation that children in that service cluster would exhibit stronger pre-literacy and social-emotional skills than children in the other service clusters.

Additional research will be needed to identify the reason for the disappointing Intensive Services result, but one possibility is that service utilization may have been overstated in the Intensive Services cluster. This cluster relied far more heavily on data reported by a single school district (Modesto City Schools; MCS) than did any of the other service clusters. Thus, if the criteria used by MCS to track service delivery were more generous than the criteria utilized by other school districts, this would have tended to inflate the service count more for the Intensive Services cluster than for the other clusters.

A related possibility is that the SR services delivered in the MCS district differed qualitatively from those delivered in other districts. If so, children in the Intensive Services cluster may have received more services than children in other clusters, but the services themselves may have been poorer in quality.

It might also be argued that the relatively weak Intensive Services results should be celebrated, rather than bemoaned. Children were not assigned to the various service clusters at random, and it may be that those who were offered the most services (and thus were grouped into the Intensive Services cluster) were deemed at the greatest risk of experiencing academic problems. If so, these children would have been expected to perform well below their peers, had they not participated in such an extensive set of SR programs. The fact that their pre-literacy and social-emotional skills rose to the level of their less academically challenged peers suggests that the SR services had the intended effect of staving off the deficits that the Intensive Services children were expected to exhibit. This explanation is intriguing, but it seems to contradict the school readiness data, which suggest that Intensive Services children were stronger students at Kindergarten entry than were students in other service clusters. Clearly, further investigation is warranted of the Intensive Services results.

Recommendations

- 1) SR programs should emphasize outreach and service to families who do not speak English at home.
- 2) SR programs should stress – or mandate – transition programs for children who do not attend preschool.
- 3) Children who attend preschool should continue to be offered SR services; preschool alone does not always yield the full spectrum of desired outcomes.
- 4) Investigations should be undertaken to determine why children in the Intensive Services cluster did not fulfill expectations regarding their pre-literacy and social-emotional skills.

III. Best School Readiness Practices

The Search for Best Practices

A “best practice” is a strategy that has been shown, through research, to reliably lead to desired results. The importance of identifying services that produce reliable outcomes for children and families is outweighed only by the challenges in doing so. The strategy employed in this report is to correlate variations in services across the sample with variations in outcomes. Although these correlations in no way indicate that a given service causes a particular outcome, they at least provide an indication of the degree to which services and outcomes are related. Correlations can range from -1.00, indicating that services are perfectly associated with negative outcomes, to 1.00, indicating that every increase in service delivery is perfectly associated with a positive improvement. Correlations between these two extreme values indicate intermediate levels of association between services and outcomes.

It is reasonable to ask why additional services might be associated with poorer outcomes. This question highlights the causality issue. Suppose, for example, that parents whose children are experiencing literacy problems ask for and receive additional services. Suppose further that these services do not actually affect (or cause changes in) literacy. In this case, the children with the poorest literacy skills would have the highest levels of service utilization, generating a negative correlation between services and outcomes. Thus, interpreting correlations properly requires careful consideration of the context in which services were received.

Interpretation is rendered difficult by other factors as well. Some services may be accessed primarily or exclusively through preschools, making it difficult or impossible to disentangle the impact of preschool from the impact of the program. Others correlations may be the result of a targeted outcome, such as parent involvement, leading a family to enroll in particular programs. In this case, correlations can arise because outcomes cause services to be utilized, rather than vice versa. A further complication may be introduced by variables or events not considered in the correlation. For example, the presence of an extended family in the home may provide childcare that provides parents with the time they need to access a given service and read to their children at home. This scenario could easily generate a correlation between parent involvement and the service that was received. However, in this case the correlation would not signify that the service caused greater parent involvement; instead, it would signify that the event that enabled the parent to access the service also enabled the parent to become more involved with his or her child’s education.

The method used to identify best practices in the current report involves examining patterns of outcome correlations for different types of services. Given the caveats listed above, the interpretation of these correlational patterns is by necessity somewhat subjective and debatable.

Appendix B reports correlations between the four major Kindergarten outcomes and three types of services: health programs, ECE programs, and adult services. All correlations displayed in Appendix B are statistically reliable at the .05 level or better, and range from 0.03 to 0.16. These values indicate a relatively low degree of association between services and outcomes. However, this does not mean that the programs have little or no impact on the outcomes; it means instead that the services that children receive during the ages 0-5 are only some of the many factors that impact children’s development.

Kindergarten Entry Skills

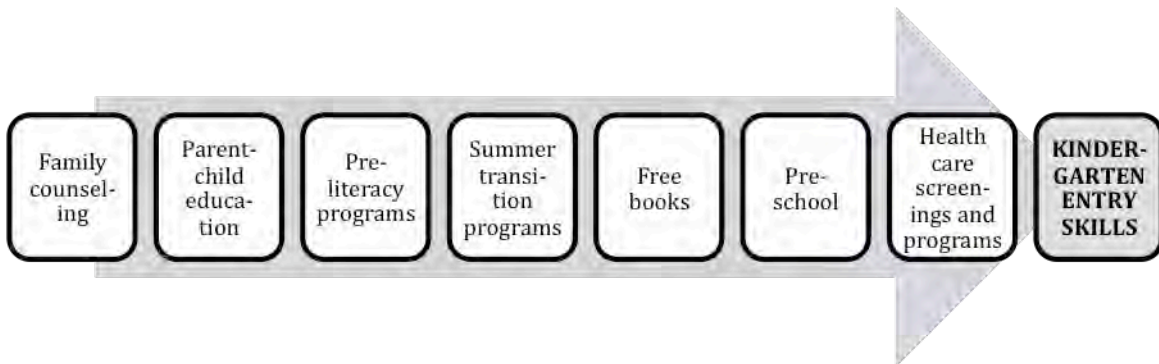
Children’s acquisition of the broad array of skills needed when they enter school relies on age-appropriate physical, linguistic, social, cognitive, and emotional development. In the *ADRDP*, the measure used to assess school readiness in the current report (see Appendix A), ratings of different areas of development are highly intercorrelated. This implies that teacher ratings reflect the overall developmental level a child has attained prior to entering Kindergarten.

Figure 5 illustrates the variables that correlate reliably with Kindergarten entry skills. The variables are shown in ascending order, with the weakest correlations on the left and the strongest correlations on the right. Health care screenings, education, and programs were consistently linked with Kindergarten readiness scores, confirming the expectation that good health promotes healthy development. In Stanislaus County, health services are often provided through preschools, which may confound the impact of the two and artificially inflate the apparent importance of health services. Despite this concern, the data support health care screening and information as valuable tools in preparing children for school.

Some ECE services were also correlated with school readiness. The strongest correlations were with preschool, free book programs, and pre-literacy programs. Summer transition programs had a reliable correlation with school readiness but this correlation was lower, perhaps signifying that the limited duration of transition programs limits their impact on child development. (This issue is examined more fully in Section IV of this report.) Kindergarten enrichment programs were negatively correlated with school readiness (not shown in Figure 5), which could have resulted from enrichment being offered to those children with the greatest need.

With the exception of parenting classes, adult services were used relatively infrequently by Stanislaus County SR programs to support families. Even so, parent-child education and family counseling were associated with higher readiness scores, while other adult services were not.

Figure 5. Services Predictive of Better Kindergarten Entry Skills

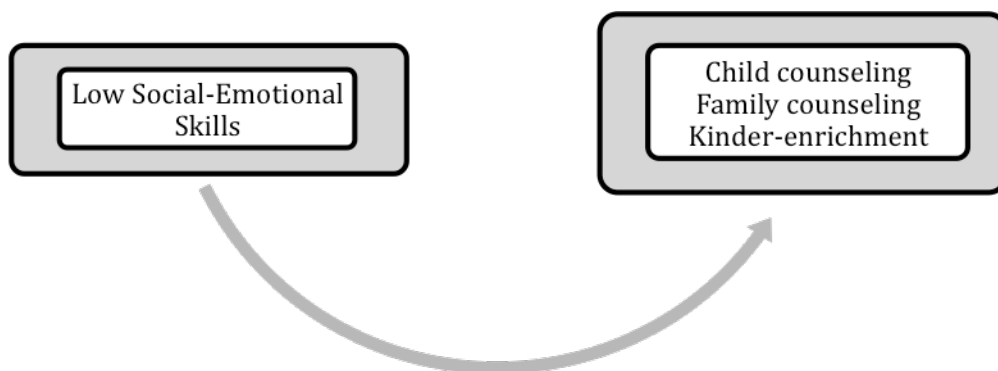


Social-Emotional Skills

None of the services tracked in the Stanislaus County School Readiness Evaluation were positively correlated with social-emotional skills in Kindergarten. This finding parallels results described in previous reports. With one exception (Waterford, which was described in Part 1 of this report), existing services countywide do not seem to have an impact on the set of skills essential for creating a positive learning environment in the classroom.

A number of services were negatively related to social-emotional skills, including behavioral/emotional counseling, Kindergarten enrichment, and family counseling. Perhaps the families that received these services sought them out because their children had lower social-emotional skills. (This hypothetical model is displayed in Figure 6.) If this explanation is correct, the negative correlations may provide reassurance that these services are being provided to families with the greatest need.

Figure 6. Services Associated with Lower Social-Emotional Skills



Pre-Literacy Skills

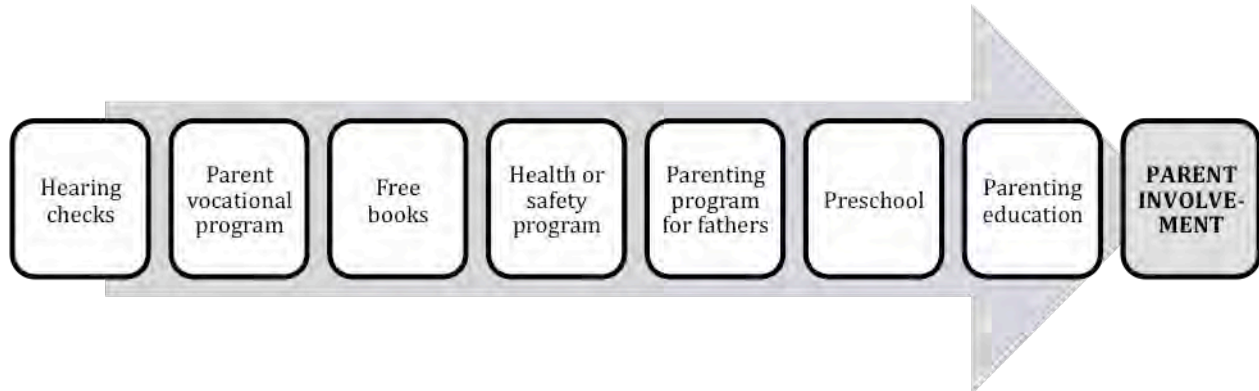
Pre-literacy skills were positively correlated with only one service: preschool. This naturally raises questions about the efficacy of other ECE and family support services in promoting literacy development. However, it would be incorrect to conclude, based solely on the correlational results, that these services are ineffective. As noted in the preceding section (and echoed below in the next section), children who had preschool experience supplemented by ECE and family support services had reliably stronger literacy skills than children who attended preschool without these services. Most likely it is not any one particular service that impacts literacy development, but the interaction of many services.

Parent Involvement

As shown in Appendix B, parent involvement scores were positively correlated with almost all support services. The strongest correlation by far was between parenting classes and parent involvement. Other services that were correlated with parent involvement included preschool, parenting programs for fathers/males, and almost all ECE services. It is impossible to determine from the current data whether these services enhanced parents' motivation to stay involved, or whether a preexisting motivation led parents to seek out services. Most likely, both processes occurred.

Linear regression was used to identify the combination of services that independently contributed to the best prediction of parent involvement. Although the findings from the regression analysis in no way clarify the issue of whether parent involvement precedes or follows service utilization, the findings do illustrate which services were most closely associated with parent involvement. Figure 6 illustrates the results. Parents who were very involved in their children’s learning were more likely to utilize the set of services depicted in the figure.

Figure 6. Services Associated with Higher Parent Involvement



Recommendations

- 5) SR programs should continue to facilitate access to health services and health education, and provide a variety of early childhood education opportunities.
- 6) SR programs should expand the social-emotional aspects of their SR programs.
- 7) SR programs should use parenting classes to support parent involvement in children’s learning, especially among families whose children do not attend preschool.

IV. Sustaining Outcomes through Grade 3

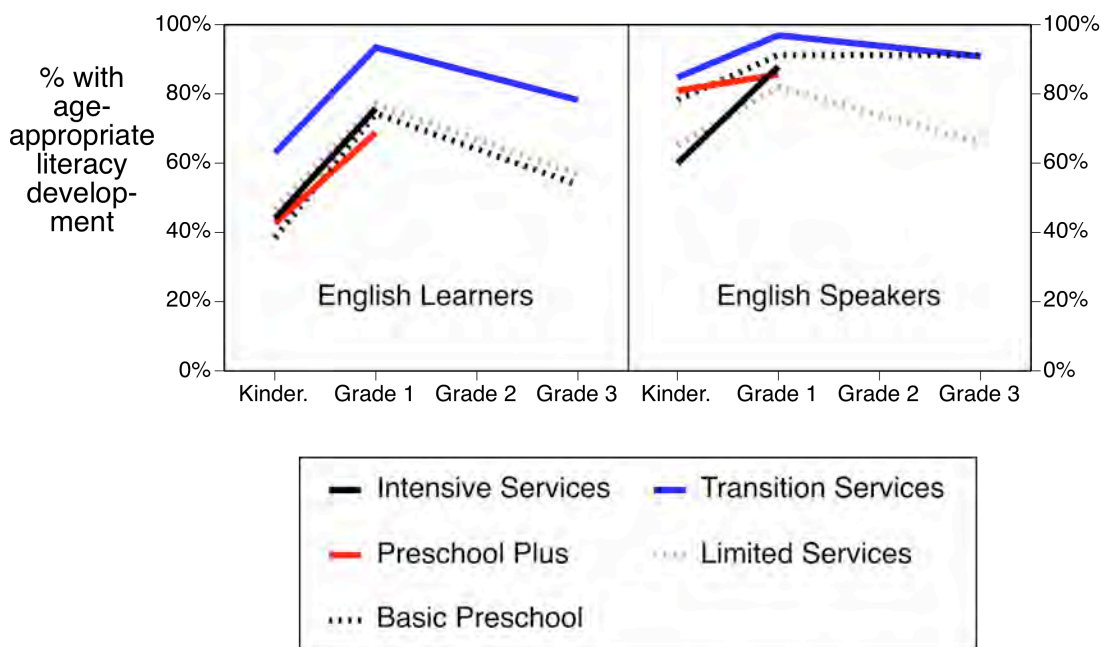
The evaluation is designed to track children from Kindergarten through Grade 6 in order to identify developmental trends, thereby providing insight into the possible long-term benefits associated with SR programs. To date, the data permit assessing developmental trends of two outcome measures: literacy skills (which are assessed in Kindergarten and Grades 1, 3, 4, and 6), and social behaviors (which are assessed in Kindergarten and Grades 1 and 3). In this report, literacy skills are examined through Grade 3 only. As more data becomes available in coming years, we will examine literacy development in later grades.

Literacy Skills

Grade level-specific versions of the DIBELS (6th edition) were used to assess literacy skills 16-24 weeks after the start of Kindergarten and Grades 1 and 3. The data reported here are longitudinal and report on the same cohort of children at each grade level; children who were (for example) assessed in Kindergarten but not in Grade 1 are excluded from the analysis. To date, only a handful of children in the Preschool Plus and Intensive Services clusters have been assessed in Grade 3 (many are entering Grade 3 this year). For these two service clusters, data are reported for Kindergarten and Grade 1 only. Figure 7 illustrates the developmental trends for each service cluster. The results are presented separately for each language group, because the acquisition of literacy in English tends to occur more slowly in English language learners ($n = 635$ children) than in native English speakers ($n = 548$ children).

Literacy skills in both language groups improved from Kindergarten to Grade 1, then (in most clusters) declined from Grade 1 to Grade 3. This latter decline – which was not observed among native English speakers in the Basic Preschool cluster – may be real. However, it is also possible that the decline is an artifact related to using more stringent criteria to assess competency in Grade 3 than in the earlier grades.

Figure 7. Developmental Trends in Literacy Skills



Among English language learners, literacy development was markedly better in the Transition Services cluster than in the other service clusters. Data for these children in the Intensive Services and Preschool Plus clusters are not yet available for Grade 3, but there is no reason for optimism: Both clusters show the same developmental trends from Kindergarten to Grade 1 as the Limited Services and Basic Preschool clusters, which lag well behind the Transition Services cluster in Grade 3.

The results for native English speakers were less clear-cut, but potentially more encouraging. In this language group, children receiving Transition Services again emerged with the strongest overall trends in literacy development. The other service clusters did not reliably differ from each other at Grade 1.

However, the changes that arose between Grades 1 and 3 were intriguing. Children in the Limited Services cluster experienced a decline in literacy skills as they matured, but children in the Basic Preschool cluster actually improved in Grade 3, attaining the same skill level as children in the Transition Services cluster. This finding is surprising, given the relatively poor Grade 3 performance of the Basic Preschool cluster among English Learners. Furthermore, if the Grade 3 trends for native English speakers signify that preschool attendance provides a long-term literacy advantage, similar trends may emerge when the Preschool Plus and Intensive Services clusters reach Grade 3.

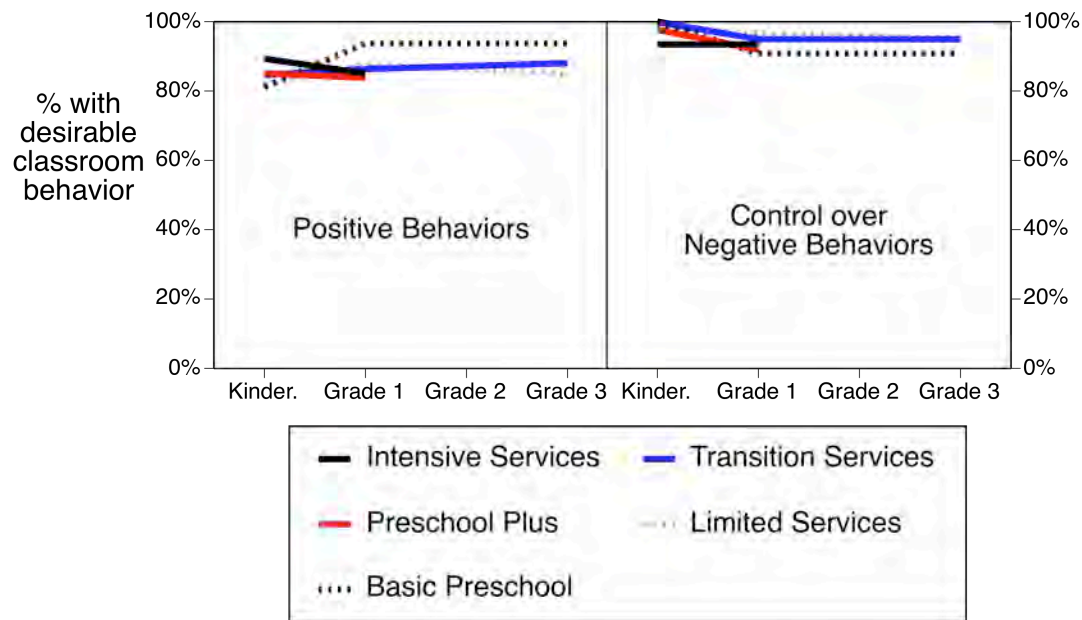
Social-Emotional Skills

Teachers in Kindergarten and Grades 1 and 3 rated, at mid-year, the frequency with which their students exhibited 3 positive behaviors and 3 negative behaviors. Longitudinal analyses of these ratings were undertaken to identify age-related trends in the development of social-emotional skills. As was the case for literacy skills, these analyses included only those children for whom ratings were available at all grade levels. Some Grade 1 and Grade 3 teachers failed to rate their students, so that the sample sizes were smaller for analyses of social-emotional development than for analyses of literacy development. Furthermore, some service clusters had few native English speakers. Thus, the analyses combined English language learners ($n = 445$) and native English speakers ($n = 415$). Combining the two language groups in this manner did not detract from the analyses, as the developmental trends for both language groups were comparable.

The percentage of children exhibiting desirable classroom behavior remained relatively stable across all three grade levels. This absence of developmental trends was in some respects fortunate; almost all children entered Kindergarten exhibiting good control of negative behaviors, so stability in that outcome signifies the continuation of a desirable outcome.

However, positive behaviors were not exhibited in Kindergarten as often as teachers desired, and this tendency did not change as the children matured. The data are suggestive of improved positive behaviors in the Basic Preschool cluster in Grades 1 and 3, but this improvement is not statistically reliable and is based upon observations of only 32 children. With a sample size this small, the percentages can change markedly if a teacher in one grade rates just 1 or 2 students as behaving better than they did in the previous grade level. Thus, in the absence of more data, the general conclusion is that positive social behaviors tend not to develop naturally over time, regardless of the cluster of services a child has received.

Figure 8. Developmental Trends in Social-Emotional Skills



It may be that social behaviors can be improved only with the aid of services that specifically target social-emotional development. Such services have been implemented in Waterford Unified School District, with notable results (as described in Part 1 of this report.)

Recommendations

- 8) SR programs should consider implementing mandatory summer transition programs, particularly in districts that have a substantial number of English language learners.
- 9) SR programs that specifically target social-emotional development should be utilized by districts that value desirable classroom behavior.

Appendix A: Assessment Tools

The School Readiness Program Evaluation employs multiple data sources: (1) a Kindergarten readiness assessment completed by the teacher at the beginning of Kindergarten, (2) a family interview, (3) a structured test of early literacy development administered mid-year, (4) a socio-emotional skill assessment completed by the teacher mid-year, (5) a measure of life satisfaction completed by the students, and (6) standardized tests administered by participating districts. The assessment tools are described below.

Table 5: Program Evaluation Data Sources

Data source	Type of data	Grade(s)	Data collection method
Adapted Desired Results Developmental Profile (ADRDP)	Readiness to learn: Personal/social competence and effective learning skills	K	Teachers answer 24 brief questions about each student
Family Background Survey (FBS)	Access to county services; academic preparation activities in the home	K	School staff/school readiness coordinators provide data from student's records; teacher or SR staff contacts family (by phone or during a parent meeting) and asks unanswered questions about services and family life
Student Social Skills Questionnaire (SSSQ)	Emotional/social development	K, 1, 3,4,6	Teachers answer 6 brief questions about each student
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)	Literacy	K, 1, 3,4,6	CSU Stanislaus research assistants test students in the classroom (approx. 30 minutes per student)
Multidimensional Students' Life Satisfaction Scale (MSLSS)	Feelings about family, friends, school, and living environment	4,6	Students complete, with assistance as needed.
Standardized tests	Basic academic skills	K, 1, 2, 3,4,6	School staff/school readiness coordinators provide data from school records

Adapted Desired Results Developmental Profile (ADRDP)

The ADRDP assesses children's readiness for Kindergarten in Stanislaus County. It asks teachers to rate children's personal and academic competencies in 24 areas important for school success. Teachers indicate whether each skill is fully mastered, almost mastered, emerging, or not yet developed. The readiness assessment by Kindergarten teachers occurs annually 6-8 instructional weeks into the Kindergarten year.

The questions were drawn from the *California Desired Results Developmental Profile*, a more comprehensive instrument that provides age-level performance standards for programs funded by the California Department

of Education. Twenty of the 24 ADRDP items are also used by the statewide evaluation in its MDRDP instrument, thereby allowing comparisons to be made between county and state data.

The ADRDP includes questions from the preschool, Kindergarten, and first grade forms. Summary scores for each developmental theme can be calculated by assigning a score of 4 to the response “fully mastered,” 3 to “almost mastered,” 2 to “emerging,” and 1 to “not yet developed.” Because ratings for the 24 questions are typically very highly correlated, the average score is used to assess the overall development or maturity of the child as he or she enters Kindergarten. Students whose averages are 3 or better are categorized as “ready for “school”

Family Background Survey (FBS)

The FBS is used to gather information from families about: (1) services received by the child and family during the 0-5 years, (2) the family environment, (3) literacy-building activities that occur at home, and (4) parent participation in activities at the child’s school. The researchers developed the Family Background Survey with the assistance of the School Readiness Leadership Team of Stanislaus County; several questions were drawn from the statewide SR parent interview and the California Even Start Family Literacy Performance Information Reporting System. The FBS is typically completed between the 2nd and 3rd instructional months (6th and 15th instructional weeks).

Student Social Skills Questionnaire (SSSQ)

The SSSQ is a brief survey that asks teachers to report on their children’s classroom behavior mid-year. Teachers are asked whether six social-emotional behaviors occur never, sometimes, often, or very often. The SSSQ assesses three positive behaviors (child accepts peers’ ideas for group activities, child forms and maintains friendships, and child comforts or helps other children) and three negative behaviors (child argues with others, child fights with others, and child gets angry easily) are assessed. Teachers conduct the assessments between the 4th and 6th instructional months (16th and 24th instructional weeks).

These six questions, developed by Gresham and Elliott as part of the Social Skills Rating Scale in 1990, were normed by the National Center for Education Statistics (NCES) in a longitudinal study of Kindergarten children in 1998-99. That sample included 22,782 children enrolled in public and private Kindergartens; the children were drawn from different racial/ethnic and socio-economic backgrounds.

Summary scores for positive and negative interaction behaviors can be calculated by assigning a score of 1 to never, 2, to sometimes, 3 to often, and 4 to very often, and then averaging the scores across the three positive or negative behaviors. Using this system, children are considered to have good social skills if their average score is 3 or 4 for positive behaviors (the behaviors are exhibited often or very often) and 1 or 2 for negative behaviors (the behaviors are exhibited never or sometimes).

Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

The DIBELS (6th edition) was developed at the University of Oregon as part of a comprehensive effort to establish benchmarks for literacy development. Research assistants conduct the literacy assessments in Grades K, 1, and 3 between the 4th and 6th instructional months (16th and 24th instructional weeks), and in grades 4 and 6 immediately thereafter. During the assessment, children complete a series of timed tests to gauge their fluency in skills essential for literacy development.

Cutoff points were set by test developers to help identify children at risk of not accomplishing literacy goals. Based on these benchmarks, children are categorized into three performance groups, from low to high. Reading trajectories are established early on and students who perform poorly in Kindergarten and grade 1 are at risk for poor long-term academic outcomes. These children are in need of intensive support. Toward this end, Kindergarten teachers receive the results of the Kindergarten DIBELS assessment within 1 month of the

testing. The labeling of the three groups depends on whether or not, according to the DIBELS system, the goal should have been accomplished or be emerging by the time of year the test is completed.

Appendix B: Correlations between Outcomes and Services

Table B1. Correlations between Health Programs and Kindergarten Outcomes

Health Program	Program Participants (2002-2007)	Outcome Correlation			
		Kindergarten Entry Skills	Social-Emotional Skills	Pre-Literacy Skills	Parent Involvement
Physical Screening	1,913	-	-	-	-
Vision Screening	1,769	0.04	-	-	0.06
Hearing Screening	1,799	0.04	-	-	0.07
Dental Screening	1,635	0.07	-	-	0.05
Behavior Screening	425	0.05	-	-0.07	0.05
Health or Safety Program	332	0.08	-	-	0.08
Behavioral or Emotional Counseling	90	-	-0.05	-0.07	0.06
Home visitation for health care	99	0.04	-	-0.07	0.05
Nutritional counseling or classes	495	0.03	-	-0.09	0.05
Health care counseling or classes	197	0.04	-	-0.06	0.05
Health fair attendance	193	0.06	-	-	0.05

Note: Only statistically reliable correlations are shown.

Table B2. Correlations between Early Childhood Education Programs and Kindergarten Outcomes

Early Childhood Education Program	Program Participants (2002-2007)	Outcome Correlation			
		Kindergarten Entry Skills	Social-Emotional Skills	Pre-Literacy Skills	Parent Involvement
Preschool	1,225	0.11	-	0.06	0.09
Pre-k transition program	668	0.03	-	-	0.09
Kinder enrichment	327	-0.05	-0.08	-0.07	0.09
Free book program	683	0.08	-	-	0.07
Home visitation services for education	214	--	-	-0.07	0.05
Pre-literacy program	309	0.06	-	-	-
Literacy fair	298	-0.07	-0.06	-	0.08

Note: Only statistically reliable correlations are shown.

Table B3. Correlations between Adult Services and Kindergarten Outcomes

Adult Service	Program Participants (2002-2007)	Outcome Correlation			
		Kindergarten Entry Skills	Social-Emotional Skills	Pre-Literacy Skills	Parent Involvement
Joint parent-child education	194	0.08	-	-	0.06
Adult education (GED, literacy etc.)	179	-	-	-	-
Parent vocational or computer training	96	-	-	-0.05	0.07
Parenting education or classes	423	-	-	-0.04	0.16
Family counseling	97	0.05	-0.05	-0.04	0.06
Parenting program for males/fathers	72	-	-	-	0.10

Note: Only statistically reliable correlations are shown