

KEY FINDINGS

<p>Children 11,297 preschool children were served by Jumpstart nationally.</p>	<p>6,599 Jumpstart children were included in the evaluation sample.</p>	<p>In the fall, most children (65%) had average <i>JSSC</i> scores between 1 and 2. By spring, most children (73%) had scores between 3 and 4.</p>	<p>90% of children made gains in language and literacy as measured by the <i>JSSC</i>.</p>	<p>Dual-language learners made larger fall-to-spring gains on the <i>JSSC</i> than children with a monolingual English background.</p>
<p>Corps members 4,089 Corps members served across 75 Jumpstart sites.</p>	<p>2,586 Corps members were included in the evaluation sample.</p>	<p>96% of Corps members would recommend serving with Jumpstart to peers.</p>	<p>97% of Corps members agreed their Jumpstart experience enabled them to build leadership skills.</p>	<p>71% of Corps members demonstrated an increase in knowledge about early childhood practices.</p>

THE JUMPSTART PROGRAM

Jumpstart’s supplemental early childhood education program serves children who are attending early education and child care programs in low-income neighborhoods.

Jumpstart’s vision is that “every child in America enters kindergarten prepared to succeed.” It is important that Jumpstart evaluates the success of its efforts to achieve its desired outcomes. This internal evaluation report focuses on child participant and adult Corps member outcomes.

Jumpstart trains its adult Corps members to use a specific curriculum that engages preschool-age children in purposeful interactions and group activities aimed at building the children’s language and literacy skills. The current curriculum focuses on six key skill areas: vocabulary, comprehension, alphabet knowledge, book reading and knowledge about print, phonemic awareness, and rhyme awareness. The skills the curriculum emphasizes correlate strongly with early school success.

The essential element of Jumpstart’s unique program is a caring, dedicated adult (i.e., college student or older adult) who forms nurturing relationships that encourage children to thrive. These adults, called Corps members, are trained to use effective strategies and a research-based curriculum to develop children’s language, literacy, and social-emotional skills. Jumpstart Corps members reduce the child to adult ratio to three to one, allowing children to benefit from a more intensive and individualized learning experience.

Jumpstart’s learning activities occur in two-hour sessions scheduled twice a week throughout the school year (approximately 20 weeks) during or after the regular preschool or child care program day. Jumpstart Corps members also spend up to six additional hours a week assisting teachers and working with children in classrooms, as well as engaging in other community service activities throughout the year.

During the 2014-2015 year, nationally, 4,089¹ Corps members affiliated with 75 Jumpstart sites² (see Appendix A) served 11,297 preschool children.

RESEARCH QUESTIONS

1. Did Jumpstart participants demonstrate gains in language and literacy skill development over the course of the program year?
2. What percentage of Jumpstart participants made gains of one developmental level (1-point) or greater from fall to spring?
3. Were there any differences among Jumpstart participant gains for children based on fall language and literacy skill status or language background status?
4. In what ways did the Jumpstart experience benefit its Corps members?

METHODS

Participants

To be included in this evaluation, children needed to:

- have parental permission for participation in evaluation activities,
- have completed the Jumpstart program (120 days enrolled in Jumpstart),
- have pre- and post-intervention assessment data (*JSSC* and *TOPEL*), and
- be less than 72-months-old at the start of the program year.

Of the 11,297 children that Jumpstart served, 6,599 were included in the *JSSC* evaluation sample and 359 were included in the *TOPEL* evaluation sample.

To be included in the evaluation, Corps members had to have:

- given their consent and
- completed both pre- and post-service surveys.

Of the 4,089 Corps members who served, 2,586 were included in the evaluation sample. These children and Corps members represent our participants.

Child Demographics

Jumpstart collects demographic information on children from their families and schools. The numbers reported in the figures and text below only refer to children in the evaluation sample ($N = 6,599$). The percentage of children in the evaluation sample with reported demographic information is noted when it is less than 100%.

The average age, in months, of Jumpstart children at the start of the program year (October 2014) was 49.17 months (slightly over 4-years-old), with ages ranging from 24.18 months to 71.94 months. *Note:* 98% of children in the evaluation sample had age reported for them. Fifty percent of children in the evaluation sample are female and 50% are male. *Note:* 98% of the Jumpstart sample had gender reported. Most children were identified as Hispanic/

¹ This number is based on counts of AmeriCorps enrolled and Non-AmeriCorps enrolled Corps members in the Corps Member Enrollment report, which was downloaded on December 9, 2015. Four Corps members from Jumpstart Arizona and 32 duplicate Corps members were subtracted from the count of 4,125.

² One site, Georgia Institute of Technology, did not implement the full Jumpstart program model during the 2014-2015 year. Child information from this site is not included in this report. While the Corps members at this site were included in the overall number of Corps members serving at Jumpstart, their demographic and outcome information was not included in the evaluation.

Latino/a (42%) or Black or African American (30%). See Figure 1. The majority of Jumpstart children’s families identified the language most spoken in their home (i.e., home language) as English (63%) and a little more than one-quarter identified their home language as Spanish. See Figure 2.

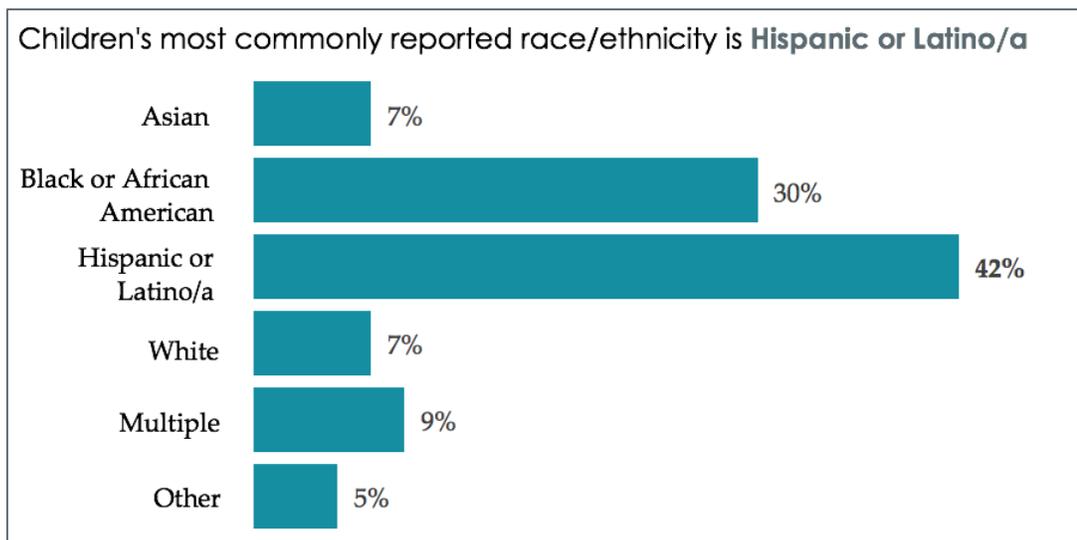


Figure 1. Reported race and ethnicity for children. Note: 97% of Jumpstart children had race and ethnicity reported for them.

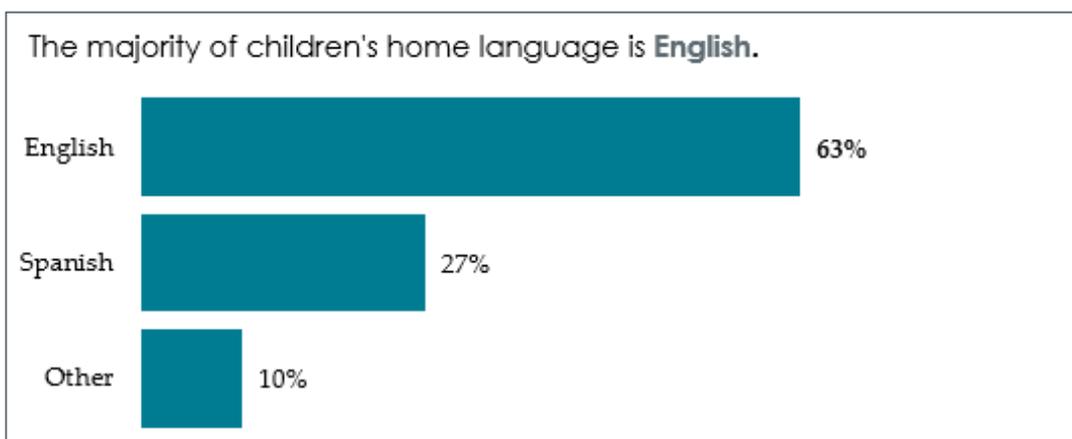


Figure 2. Children’s home language. Note: 96% of Jumpstart children had home language reported for them.

Corps Member Demographics

Jumpstart collects demographic information from Corps members completing the *Corps Member Survey*. The numbers reported in the figures and text below only refer to Corps members in the evaluation sample ($N = 2,586$). Jumpstart Corps members are either college students (i.e., College Corps members) or community volunteers who are typically older adults (i.e., Community Corps members). The evaluation sample includes 2,470 College Corps members (64% of all College Corps members who served) and 116 Community Corps members (54% of all Community Corps members who served). Most demographic information presented below includes averages for both groups together unless noted otherwise. In most cases, the percentage of Corps members in the evaluation sample with reported demographic information is only noted when it is less than 100%. As a note, some of the Corps member demographic questions were asked differently than how families were asked to complete demographic information for children as part of the consent form process. For example, Corps members were asked to report on their race and ethnicity independently, with a separate item for each construct; the first item asked Corps members to select their *one* ethnicity. The second item asked Corps members to select *all* races that

applied to them. Families, on the other hand, were asked, “What race and ethnicity is your child?” as a single item as part of the consent form process (see Appendix B). Therefore, the way that these data are displayed and discussed below are different for each group.

During the 2014-2015 program year, most Corps members were in their first year of service (68%), but 23% were in their second year, and 9% were in their third or more year of service.

Jumpstart Corps members are a diverse group of volunteers on a variety of measures, particularly age, race and ethnicity, and education (discussed later, in the Corps Member Outcomes section).

The average age of College Corps members prior to the start of their first training (September 2014) was 20.36 years old, with ages ranging from 17.03 to 59.56³ years-old. The average age of Community Corps members was 65.85, with ages ranging from 20.19⁴ to 89.76 years-old. Figure 3 shows the distribution of age for College Corps members and Community Corps members.

College Corps		Community Corps	
Age Group	Percentage	Age Group	Percentage
Younger than 19	29%	Younger than 60	22%
19 – 21.99	60%	60 – 69.99	35%
22 – 24.99	9%	70 – 79.99	30%
25 and older	3%	80 and older	12%

Figure 3. Age distribution by college and community Corps members. Percentages may not total 100% due to rounding. (Note: 99.96% of the 2,470 college Corps members reported age and 100% of the 116 community Corps members reported age.)

Eighty-eight percent of Jumpstart Corps members in the evaluation sample are female and 12% are male. As illustrated in Figure 4, Jumpstart Corps members are ethnically and racially diverse, but half identify as White and just over two-thirds identify as non-Hispanic⁵. The majority (83%) of Jumpstart Corps members identified their primary language as English. See Figure 5.

³ Several of Jumpstart’s college/university sites enroll a diverse study body with many nontraditional students (i.e., adults, 25 and older). Each year, several of these students join the Corps.

⁴ Some of Jumpstart’s Community Corps programs (e.g., Merrimack Valley Community Corps), enroll Corps members who are younger than 55-years-old, with some Corps members as young as 20.

⁵ Corps members’ race and ethnicity were assessed using a standard two question format (see Appendix B). The first question asked Corps members to report *one* ethnicity (Hispanic/Latino/Spanish culture or origin or Non-Hispanic/ethnicity/Latino/Spanish culture or origin) and was marked as an optional question. The second question, also optional, asked Corps members to check *all* races that apply (Black or African American, Asian, American Indian or Alaska Native, White, Native Hawaiian or other Pacific Islander, or Other, with a space to designate other races). Recent research suggests many Americans find two-part race and ethnicity questions to be confusing, because not all Americans separate their race from their ethnic origin (Patten, 2015). Thus, surveys that utilize optional questions can yield different response rates for race and ethnicity information; as seen here, only 84% of Corps members in our evaluation sample reported race and 78% reported ethnicity. As the individual respondents answering each question can differ, it is challenging to report this information together.

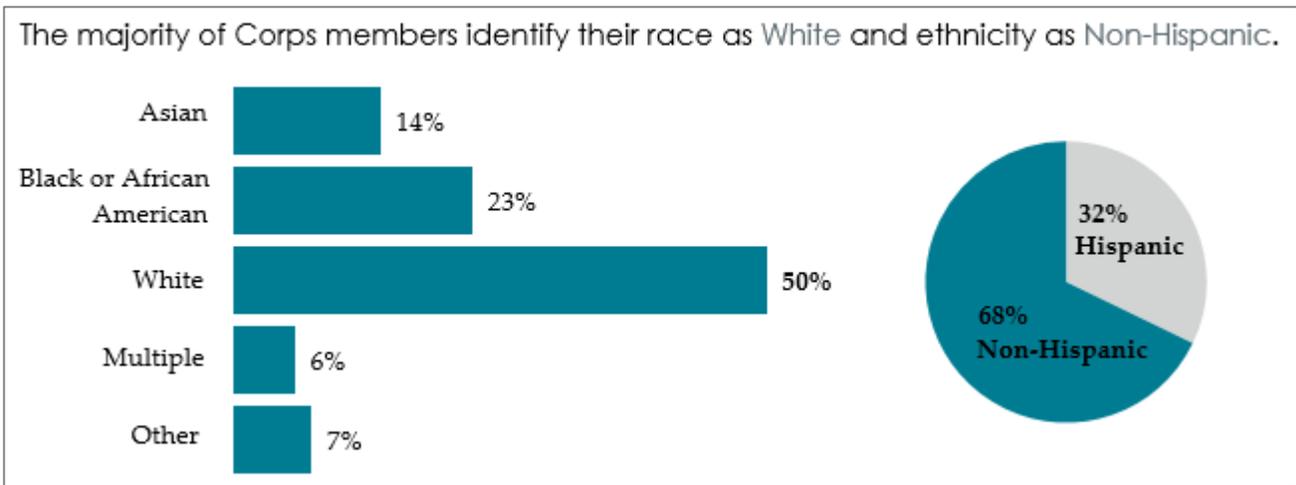


Figure 4. Corps members' race and ethnicity. *Note:* Race and ethnicity were assessed using two separate questions. 84% of Corps members reported race and 78% reported ethnicity.

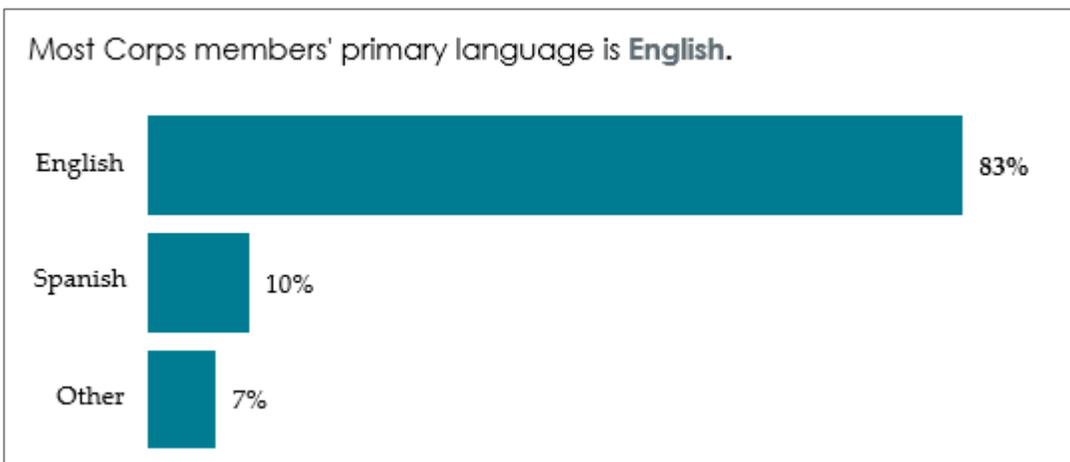


Figure 5. Corps members' primary language. (*Note:* 100% of Corps members reported primary language).

College Corps members were asked if they are a first-generation college student. Only 1,251 (51%) of College Corps members responded to this question. Of those who responded, 93% indicated that they are first generation college students. On all surveys, the goal is to maximize response rates and minimize the number of nonresponses. When item nonresponse rates are high and nonrandom (that is, when the characteristics of those who responded and those who did not respond to an item are different), the ability to generalize the survey findings to the larger population – in our case, all College Corps members – is questioned; however, if nonresponse is random, survey data can still estimate the population (Meyer, Mok, & Sullivan, 2015). Jumpstart has limited information on the characteristics of those who do not respond; therefore, survey bias is difficult to assess in this case. Being able to ensure that first generation survey results are representative of our Corps is important given that service learning has been found to be beneficial in keeping first generation students engaged at their universities by increasing exposure to nontraditional learning opportunities and providing more opportunities to build social capital through relationships (Yeh, 2010). Even when not affiliated with an official service learning course, the Jumpstart experience closely aligns components of service-learning (e.g., Corps members connect their training to direct service in preschool classrooms and are given ample opportunities for reflection). Response improvement techniques are being explored for the first generation item for future administrations of the *Corps Member Survey*.

Setting

Jumpstart children attended early childhood education centers that primarily serve children from low-income households; on average, at the time of enrollment, 90% of these centers' 36-59 month-olds were from low-income households. *Note:* This number represents classrooms served overall, not only those classrooms in the evaluation sample. 95% of classrooms have reported data on percentage of children from low-income households. Most children were enrolled in community-based organizations (43%), followed by centers in public schools (29%), Head Start centers (27%), and centers in private schools (1%).

Corps members served at 75 sites across 14 states. Jumpstart partnered with higher education partners at 70 sites; the remaining five were Community Corps sites.

Assessments

Child Assessments

Children are assessed on the *Jumpstart School Success Checklist (JSSC)*. The *JSSC* is derived from the HighScope Educational Research Foundation's *Preschool Child Observation Record (COR)*, 2nd Edition (HighScope, 2003), a standardized teacher observational tool independently created and vetted by HighScope. Jumpstart's version selects fifteen items from the *COR* that are directly related to Jumpstart's focus on early literacy skills. The items focus on language and literacy skills as well as social-emotional competencies that have a language component (e.g., relating to adults through conversation and making choices and plans by verbally expressing them).

Preschool teachers complete the *JSSC* in the fall (before the program begins) and spring (after program completion). The *JSSC* has 15 items on which each child is rated based on his or her demonstrated level of ability for that skill. Possible scores for each item are 1, 2, 3, 4, or 5. For each item, each score (1-5) corresponds to a specific skill/behavior. These skills are arranged developmentally from easiest to hardest. As a result, an increase of one point on an item from fall to spring is considered a change of one developmental level for that skill. For example, for Item 7 (Reading), a child who receives a 4 recognizes a written word. A child who receives a 5 can read aloud a simple phrase or sentence.

During the 2014-2015 year, in addition to being assessed on the *JSSC*, a subset of children served by sites funded by the Corporation for National and Community Service's National Direct (ND) commission were also assessed on the *Test of Preschool Early Literacy (TOPEL)*⁶ - a widely used instrument for children ages 3-5-years-old in intervention research. The ND sites that were included in the *TOPEL* evaluation sample are highlighted in Appendix A.

The *TOPEL* has three subtests that align directly with Jumpstart's three current target domains and skills: Phonological Awareness (Jumpstart domain: phonological awareness), Definitional Vocabulary (Jumpstart domain: oral language), and Print Knowledge (Jumpstart domain: books and print knowledge). The *TOPEL* also produces an Early Literacy Index (ELI), a composite score obtained by combining the scores from the Print Knowledge, Definitional Vocabulary, and the Phonological Awareness subtests; it provides a picture of a child's overall literacy skills.

The *TOPEL* yields three types of scores: raw scores, percentile ranks, and standard scores. Raw scores are the total points earned from the items of the test. Percentile ranks represent the distribution of scores compared to the normative sample. Standard scores are scaled scores that are derived from a raw score and a child's chronological

⁶ The *TOPEL* is a standardized, norm-referenced measure of early language and literacy skills. Norm-referenced tests compare and rank test takers in relation to others who have already taken the test – the normative sample. The *TOPEL* was normed on a group of 842 children from across the U.S. This sample closely approximates the U.S. population by geographic area, gender, ethnicity, family income, families' educational attainment, exceptionality status (e.g., learning disorders, emotional disturbance, hearing impairment), and age.

age. The standard score for each subtest and the ELI has a mean/average of 100. For the purposes of this report, only standard scores were analyzed.

Trained assessors administer the *TOPEL* to children in fall (before the program begins) and spring (after program completion). All assessors are recruited by site managers and must:

- be volunteers
- not be staff members
- be highly reliable
- have clean background checks

During the 2014-2015 program year, all assessors were Corps members. To eliminate bias, Corps member did not assess their partner children or any children from the classroom in which they served.

Corps Member Assessment

In addition to measuring child impact, Jumpstart also evaluates Corps member impact by administering the *Corps Member Survey* three times a year: before pre-service training in the fall, after additional in-service training in the winter (for some sites), and at the end of the program year in the spring. The surveys collect information about Corps members' demographic and academic backgrounds, future career plans, knowledge of early childhood best practices, attitudes on citizenship and community engagement and leadership, and satisfaction with the Jumpstart program. Some items of the survey are specific to College Corps members only, while others are specific to Community Corps members. The results below refer to outcomes for both groups together unless noted otherwise. Response rates for each item are noted when less than 100%.

CHILD OUTCOMES – JSSC

Distribution of Scores

Figure 6 displays the percentage of children scoring at each level (1-5) on the *JSSC* in the fall and spring. In the fall, Jumpstart children were more likely to have average total scale scores clustering at the low-end of the scale. In fact, 65% of children had scores between 1 and 2. By the spring, the pattern reversed; scores were more likely to be higher and most children (73%) had total scale scores clustering around 3 and 4.

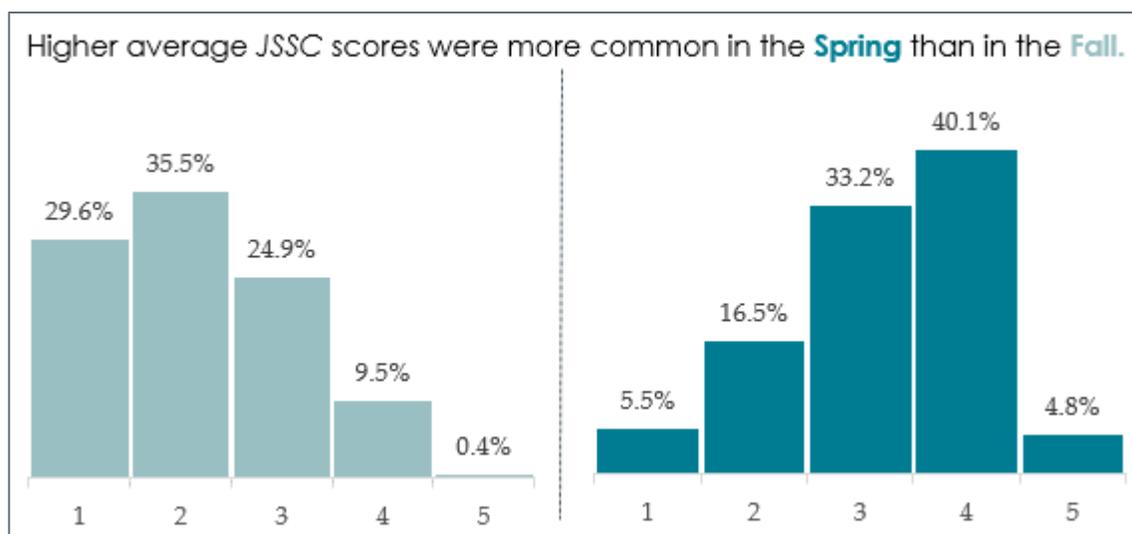


Figure 6. Distribution of children's fall and spring *JSSC* total scale scores. Percentages may not total 100% due to rounding.

As a note, on the *COR*, from which the *JSSC* was developed, HighScope notes that there is no exact match between ages and scoring levels, so the distribution of scores for age categories are not reported here. However, the scores do represent development, and they go up as children progress. For example, children who receive 4s – a score that 40% of Jumpstart children received in the spring – can: contribute to an ongoing conversation, use two or more words to describe something, use a compound subject or object in a sentence, and sustain an interaction with an adult. These children differ developmentally from those who receive 3s; children who receive 3s can: comment on or asks a question about a story, rhyme, or narrative that they are listening to, use vocabulary related to a particular subject, use two or more simple sentences in a row, and initiate an interaction with an adult.

Figure 7 illustrates the distribution of children who made gains within five ranges (no gains, gains from .01 to .99, from 1 to 1.99, from 2 to 2.99, and from 3 to 3.99) and the percentage of children whose scores actually declined from fall to spring (less than 0). Most children (88%) made between .01 and 2.99 average gains in total scale scores. The largest average gain was 3.93 and largest decrease in fall-to-spring scores was -2.87.

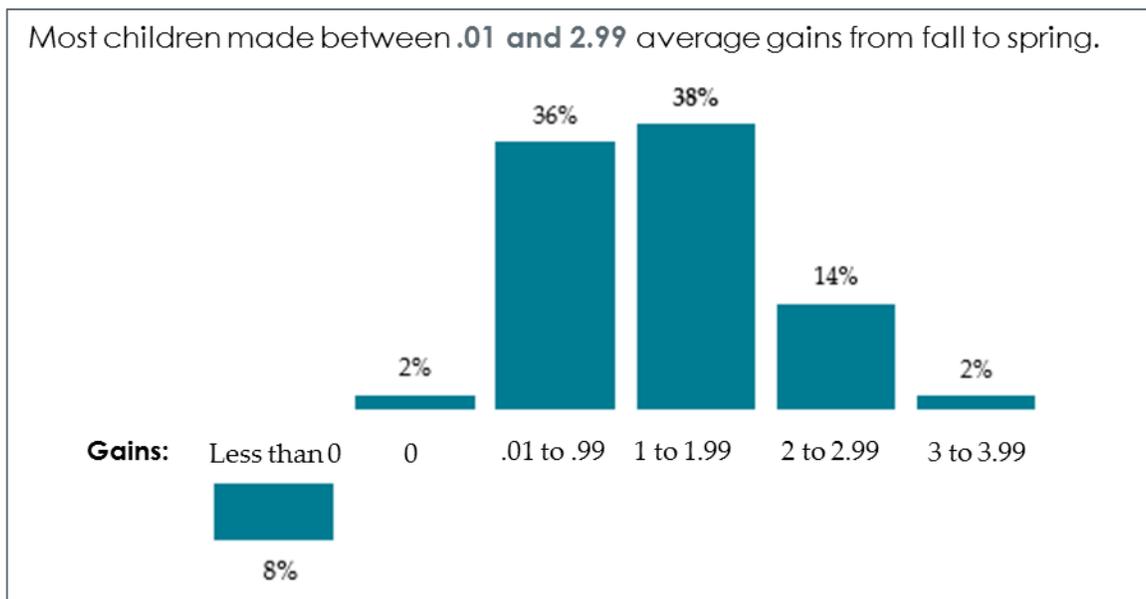


Figure 7. Distribution of children’s fall-to-spring *JSSC* score gains. *Note:* Although it was possible for children to have gains of 4 points, gains of 4 are excluded from this distribution because no child in the evaluation sample had a gain higher than 3.93.

Fall-to-Spring Total Scale Gains

Ninety percent (5,967) of Jumpstart children in the evaluation sample made fall-to-spring gains in language and literacy as measured by the *JSSC*. Fifty-four percent (3,590) of Jumpstart children made gains of one developmental level or more. See Figure 8. The percentage of children making any gains and gains of one developmental level or more during the 2014-2015 program year is comparable to previous program years; during the previous two years, the percentage of Jumpstart children making any gains has been 92% (2013-2014) and 89% (2012-2013), and the percentage of children making gains of one developmental level or more has been 56% (2013-2014) and 53% (2012-2013).

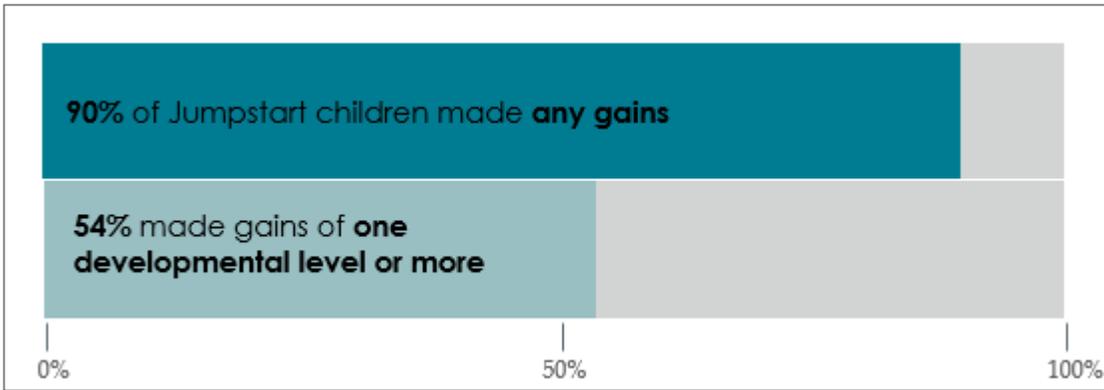


Figure 8. Percentage of children making gains.

Average Point Gains

Jumpstart children began the year with an average fall score of 2.59 and concluded the program year with an average spring score of 3.67. Therefore, Jumpstart children, on average, demonstrated fall-to-spring gains of 1.08. See Figure 9.

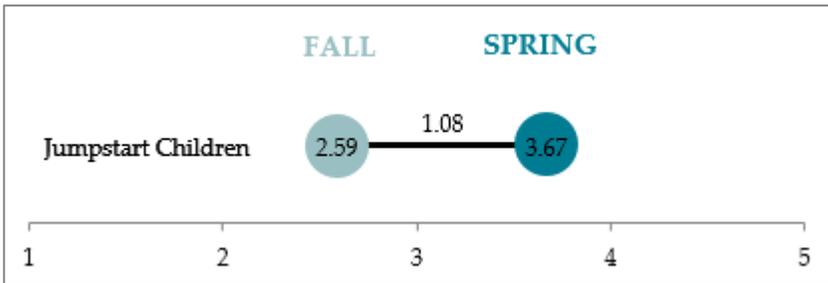


Figure 9. Fall-to-spring gains on the JSSC.

Table 1 below presents Jumpstart children’s average gains from fall to spring on the 15 individual JSSC items. Children in the evaluation sample made gains of one developmental level or more on all but three of the JSSC items (demonstrating knowledge about books, reading, and making choices and plans). The average gains on these three items were .96, .97, and .98, just under the 1.00 threshold for a one-point gain. The largest item-level gains were on using letter names and sounds.

Table 1

Jumpstart Children’s JSSC Average Item Gains

JSSC Items	Fall Average Scores	Spring Average Scores	Average Gains
Listening to and understand speech	2.63	3.76	1.13
Using vocabulary	2.72	3.77	1.05
Using complex patterns of speech	2.77	3.80	1.03
Showing awareness of sounds in words	2.14	3.32	1.18
Item 5: Demonstrating knowledge about books	2.78	3.75	0.97
Item 6: Using letter names and sounds	2.28	3.62	1.34
Item 7: Reading	2.38	3.35	0.97

<i>JSSC</i> Items	Fall Average Scores	Spring Average Scores	Average Gains
Item 8: Writing	2.25	3.45	1.2
Item 9: Making choices and plans	2.85	3.81	0.96
Item 10: Solving problems with materials	2.46	3.52	1.06
Item 11: Initiating play	2.94	3.94	1.00
Item 12: Resolving interpersonal conflict	2.41	3.42	1.01
Item 13: Understanding and expressing feelings	2.51	3.69	1.18
Item 14: Relating to adults	2.76	3.86	1.10
Item 15: Relating to other children	2.93	4.02	1.09

Children Making the Greatest Progress

In an effort to determine which children in the Jumpstart program made more progress than others, children were grouped according to their fall scores on the *JSSC*⁷. Ninety percent (5,942) of the children in the evaluation sample began the program with a *JSSC* score of less than 3.99⁷, so were classified as beginning the program with lower language and literacy skills. Almost all of these children (91%) made gains in language and literacy skills from fall to spring. Of note, almost all (3,574) of the 3,590 children in the evaluation who made gains of one developmental level (1.0) or more on the *JSSC* were children who began the program with lower language and literacy skills. On a five-point scale, these children have the most room to grow.

As illustrated in Table 2 and Figure 10 below, children who began the program with lower language and literacy skills made statistically significant larger average gains ($M = 1.19$, $SD = .83$) during the program year than children who did not begin the program with lower language and literacy skills ($M = .16$, $SD = .60$; $t(6597) = 3.47$, $p = .000$). Notably, the children in the lower language and literacy skills group also had a statistically significant lower average age in months ($M = 48.47$, $SD = 7.47$) than children who did not have lower language and literacy skills at the beginning of the program ($M = 53.33$, $SD = 6.47$; $t(6524) = -17.90$, $p = .000$).

Table 2
Average *JSSC* Score Gains by Language and Literacy Skills Group

	Children with Lower Scores	Children with Higher Scores	Comparison of the Groups
Average Point Gains	1.19	.16	$t(955) = 39.78$, $p = .000$
% Making any Gains	93%	69%	$X^2(1, N = 6,599) = 377.55$, $p = .000$.
% Making gains of one developmental level or more	60%	2%	$X^2(1, N = 6,599) = 794.34$, $p = .000$.

Table 2 illustrates that differences in average point gains, the percentage of children making any gains, and the percentage of children making gains of one developmental level or more for each subsample of children is statistically different $t(955) = 39.78$, $p = .000$; $X^2(1, N = 6,599) = 377.55$, $p = .000$; and $X^2(1, N = 6,599) = 794.34$, $p = .000$.

⁷ As gains on the *JSSC* can be understood in terms of increases in developmental levels, a score higher than 3.99 indicates children can only make gains of one developmental level or less. Higher *JSSC* scores reflect more developed skills necessary for school readiness, so highlighting children who initially score less than 3.99 can demonstrate Jumpstart's impact on those children who can benefit the most. Historically, Jumpstart has used 3.99 as a criterion for identifying children with lower language and literacy skills; the Research & Evaluation team is exploring if this score still works as a cutoff score.

As seen in Figure 10, children beginning the Jumpstart program with higher scores made very small average point gains, but their scores at the end of the program remain higher than their peers who began with lower scores.

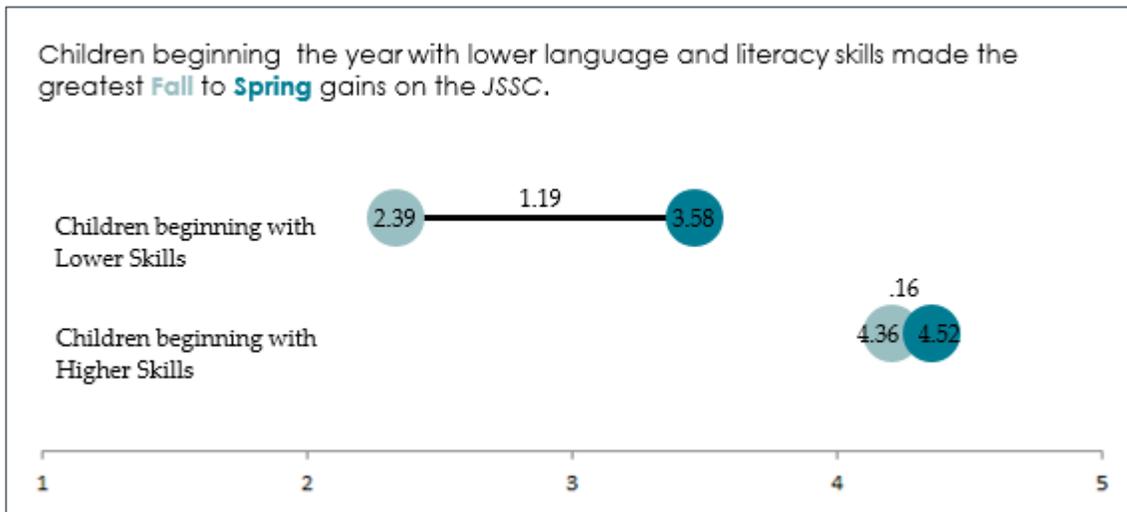


Figure 10. Children’s fall and spring JSSC scores by language and literacy skills group. (Note: The gray dots indicate fall scores while the teal dots indicate spring scores. The black bars between dots and the numbers above the bars indicate the average gains in scores for each subsample of children. Given the small gains for children beginning with higher skills, the black bar is not displayed for this group).

Child Language Background

In light of research indicating children’s language background can affect their school readiness, the Research & Evaluation team explored whether differences in progress exist for children of different language groups. First, children were grouped according to their reported home language. Thirty-seven percent (2,324) of the children in the evaluation sample who had available language data were classified as having a home language other than English. Almost all of these children (93%) made gains in language and literacy skills from fall to spring.

As illustrated in Table 3 and Figure 11 below, children whose home language is not English made statistically significant larger average gains ($M = 1.23$, $SD = .86$) during the program year than children whose home language is English ($M = .99$, $SD = .84$; $t(6303) = -11.01$, $p = .000$).

Table 3
Average JSSC Score Gains by Child’s Home Language Group

	Non-English (n = 2,324)	English (n = 3,981)	Comparison of the Groups
Average Point Gains	1.23	.99	$t(6303) = -11.01$, $p = .000$
% Making any Gains	93%	89%	$X^2(1, N = 6305) = 31.535$, $p = .000$
% Making gains of one developmental level or more	61%	50%	$X^2(1, N = 6305) = 70.649$, $p = .000$

Table 3 illustrates that differences in average point gains, the percentage of children making any gains, and the percentage of children making gains of one developmental level or more for each subsample of children is statistically different ($t(6303) = -11.01$, $p = .000$; $X^2(1, N = 6305) = 31.535$, $p = .000$, and $X^2(1, N = 6305) = 70.649$, $p = .000$). The largest difference appears to occur on the percentage of children making gains of one developmental level or more; there is an eleven percent difference between the percentage of children in the non-English speaking

group who made gains of more developmental level or more compared to the children in the English speaking group.

As seen in Figure 11, children whose home language is not English started the program year with much lower fall *JSSC* scores than children whose home language is English, but had similar scores at the end of the year due to larger gains. While children's spring *JSSC* scores were still significantly higher ($t(6303) = 4.124, p = .000$) for children whose home language is English ($M = 3.61; SD = .93$) than children whose home language is not English ($M = 3.71; SD = .94$), the similar scores indicate Jumpstart is promising for helping children with non-English language backgrounds close the gap.

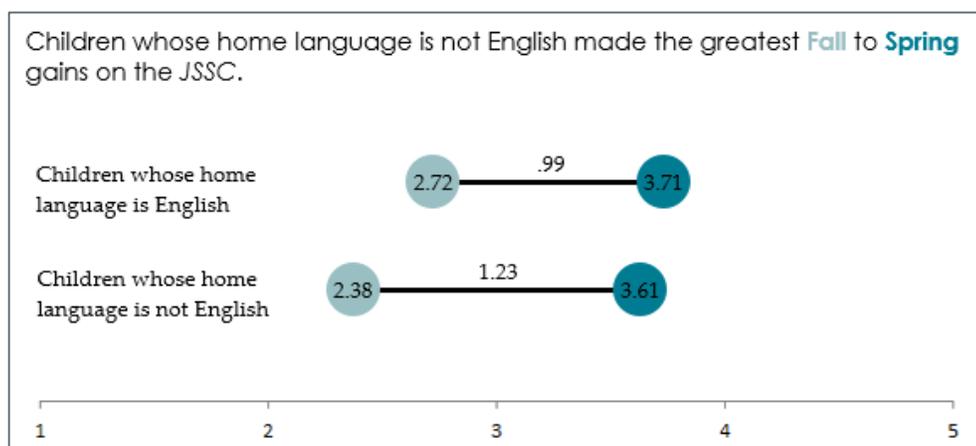


Figure 11. Children's fall and spring *JSSC* scores by home language group.

It is important to note that this measurement of a child's home language does not take into account children who may speak more than one language. To report home language on the child consent form, parents were asked to choose the language most spoken in the home. A separate question prompted parents to list any other languages spoken in the home. To further explore differences in child outcomes for children with different language backgrounds, the Research & Evaluation team combined responses to both questions to classify children according to more specific language status groups (i.e., monolingual English; monolingual Spanish, monolingual Other, bilingual English and Spanish, and bilingual Other). Only children who had information available for both questions were included in analyses. In some cases, parents did not report the most spoken home language, but listed more than one other language spoken in the home; these children were counted in the subsample as well. Overall, 98% (6,496) of children in the evaluation sample could be classified according to their language status. Most children were classified in the monolingual English group (42%) or the bilingual English and Spanish group (35%). See Figure 12.

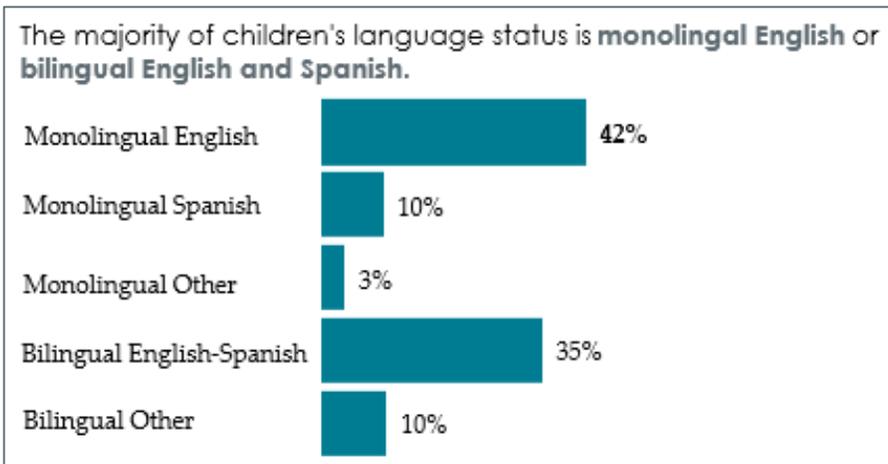


Figure 12. Children's language status.

Table 4 illustrates the average point gains, percentage of children making any gains, and percentage of children making gains of one developmental level or more for each group of children. Children whose language background is monolingual Spanish made the highest fall-to-spring gains (1.32). Children with a monolingual English background started with the highest average fall scores (2.77), but made the least fall-to-spring gains (.92). Interestingly, children with a bilingual English and Spanish background were the only group to “close the gap,” meaning they had higher average spring scores (3.72) than monolingual English status children.

Table 4
Average JSSC Score Gains by Child's Language Status Group

	Average Fall Scores	Average Spring Scores	Average Point Gains	% Making any Gains	% Making gains of one developmental level or more
Monolingual English (n = 2,714)	2.77	3.69	.92	87%	48%
Monolingual Spanish (n = 629)	2.27	3.59	1.32	94%	66%
Monolingual Other (n = 227)	2.29	3.41	1.13	93%	53%
Bilingual English-Spanish (n = 2, 262)	2.50	3.72	1.22	94%	60%
Bilingual Other (n = 664)	2.58	3.61	1.03	90%	50%

Note: Bolded numbers in each column indicate the highest number or percentage for that column.

A one-way between subjects ANOVA was conducted to compare the effect of language background status on average gains for children. There was a significant effect of language status on fall-to-spring gains at the $p < .05$ level for the five groups [$F(4, 6491) = 52.125, P = .000$]. Post hoc comparisons using the Tukey-Kramer test indicated that the mean fall-to-spring score gains for the monolingual English group ($M = .92, SD = .85$) was significantly different than all other groups - the monolingual Spanish group ($M = 1.32, SD = .87$), the monolingual other group ($M = 1.13, SD = .92$), the bilingual English and Spanish group ($M = 1.22, SD = .84$), and the bilingual other group ($M = 1.03, SD = .87$). Of note, only one group (monolingual Other group) did not have a significant difference between some of the other groups (the bilingual English-Spanish group and bilingual Other group).

Interestingly, the monolingual other group has lower average fall and spring scores than the bilingual other group, but higher average gains (though not statistically different). It is important to note the “bilingual Other” group can

include children with more than two total languages spoken in the home, which can be English and at least one other language (not including Spanish) or more than one other language (not including English or Spanish). Further analyses would need to be conducted to determine if children in this group who have English as one of their reported languages have different outcomes than children in this category who do not have English reported as one of their languages.

Taken together, these results suggest that language background status has an effect on fall-to-spring *JSSC* score gains. Specifically, our results suggest that children with a language background other than monolingual English benefit more from the Jumpstart program than children with a monolingual English language background.

CHILD OUTCOMES - *TOPEL*

***TOPEL* Gains Versus *JSSC* Gains**

The intervention literature suggests that, even with an intervention in place, not all children will make language gains during the year (Hammer, Scarpino, & Davison, 2011). This becomes evident when *TOPEL* gains are compared with *JSSC* gains. The *TOPEL* and the *JSSC* are two different types of assessments. The *JSSC* is a subjective, indirect teacher observation tool, while the *TOPEL* is an objective direct assessment of children's abilities. On the *JSSC*, for example, teachers report on whether or not they have ever observed a child saying the beginning letter or letter sound of any word (item 6, level 5). On the *TOPEL*, on the other hand, assessors point to a specific letter that is printed in the Picture Book, and, in the moment, children have to correctly say what sound the letter makes to receive a point for that item. Furthermore, on assessments like the *TOPEL*, gains on raw scores do not always translate into gains on standard scores. For each subtest, standard scores are based on a child's chronological age as well as the raw score that he received on that subtest. For example, a child who is 3.2 (3 years and 2 months old) may receive a raw score of 14 on Print Knowledge in the fall and, six months later, may receive a raw score of 18. While the difference between these two raw scores represents a fall-to-spring gain of four points, both are associated with a standard score of 117, and therefore, a fall-to-spring standard score gain of 0. As a 3.8-year-old, the child would have needed to receive a raw score of 19 to see an increase in his standard score.

Children Making Gains

Seventy-six percent of children made fall-to-spring gains on *TOPEL*'s Early Literacy Index, a composite score obtained by combining the scores of all three subtests. The Phonological Awareness subtest was associated with the largest percentage of children making fall-to-spring gains. See Figure 13.



Figure 13. Percentage of children making fall-to-spring gains on *TOPEL* standard scores.

For Print Knowledge, the average gain was 6.3 points, with losses as large as -25 and gains as large as 43 points. For Definitional Vocabulary, the average gain was 8, with losses as large as -45 and gains as large as 65 points. For Phonological Awareness, the average gain was 10, with losses as large as -40 and gains as large as 62. For the ELI, the average gain was 10.2, with losses as large as -22 and gains as large as 70 points.

Average and Above Average Scores

The standard scores for all three subtests and the ELI all have a mean of 100; most (49.51% of) children in the normative sample received a score between 90 and 110, resulting in scores in this range being average scores.

Therefore, subsequent test-takers, like Jumpstart children, who receive average *TOPEL* standard scores (i.e., standard scores between 90 and 110), perform like most children their age. Their skills related to early literacy are what would be expected. Children who receive above average standard scores (i.e., standard scores above 110) are likely to be competent at a wide range of activities that require skills associated with early literacy.

For all three subtests and the ELI, an exact McNemar’s test determined that there was a difference in the proportion of children receiving at least an average score (i.e., a score greater than or equal to 90) before the intervention (fall) and after the intervention (spring). The pattern of change was significant for all three subtests and the ELI ($p < .01$), with more children obtaining average and above average scores in the spring than the fall. See Table 5.

Table 5

Percentage of Children Who Received at Least an Average Standard Score on the TOPEL in the Fall and in the Spring

Subtest	Percentage of Children Receiving at Least an Average Standard Score in the Fall	Percentage of Children Receiving at Least an Average Standard Score in the Spring	Change in the Percentage of Children Receiving at Least an Average Standard Score from Fall to Spring
 Print Knowledge	68%	85%	17%*
 Definitional Vocabulary	61%	80%	19%*
 Phonological Awareness	46%	69%	23%*
 Early Literacy Index	53%	77%	24%*

*Note: $p < .01$

Children Who “Closed the Gap”

One of the principal uses of the *TOPEL* is to monitor the progress of a child who has been enrolled in an intervention or educational program, like Jumpstart. Comparisons between pre- and post-test results can be used as evidence that a program is yielding the intended effects. One of the intended effects of Jumpstart is to close the achievement gap by helping to improve the language and literacy skills of children, particularly those who demonstrate below average skills at the beginning of the year. Results from the *TOPEL* can be used to monitor groups of children for whom the achievement gap may be closing.

On the *TOPEL*, children “closed the gap” if they received a below average standard score (i.e., a score below 90) in the fall and made enough gains through the year to receive an average or above average score in the spring.

On the Print Knowledge subtest, 32% of children (116) received a below average score in the fall. Of those, 62% (72) closed the gap and received at least an average score in the spring. On the Definitional Vocabulary subtest, 39% of children (140) received a below average score in the fall. Of those, 60% (84) closed the gap in the spring. On the Phonological Awareness subtest, 54% of children (194) received a below average score in the fall. Of those, 59% (115) closed the gap in the spring. See Table 6.

Table 6
Jumpstart Children Who “Closed the Gap” in the Spring

Subtest	Percentage of Children With a Below Average Score in the Fall	Children Who Closed the Gap (Percentage of Children With a Below Average Score in the Fall Who Received at Least an Average Score in the Spring)
 Print Knowledge	32%	62%
 Definitional Vocabulary	39%	60%
 Phonological Awareness	54%	59%

There are children who received below average scores at both time points. On the Print Knowledge subtest, of the 32% of children (116) who received a below average score in the fall, 38% of them (44) also received a below average score in the spring. On the Definitional Vocabulary subtest, of the 39% of children (140) who received a below average score in the fall, 40% of them (56) also received a below average score in the spring. On the Phonological Awareness subtest, of the 54% of children (194) who received a below average score in the fall, 41% of them (79) also received a below average score in the spring.

Summary of Child Outcomes

Overall, results indicate the Jumpstart program is effective in improving children’s language and literacy skills, as assessed by two measures, the *JSSC* and the *TOPEL*. The *JSSC* data suggests Jumpstart is especially beneficial for the most vulnerable children; in fact, the highest gains on the *JSSC* occurred for children who began the program with lower language and literacy skills as well as children from differing language backgrounds other than English.

CORPS MEMBER OUTCOMES

Interest in Early Childhood

Program of Study

A number of Jumpstart’s College Corps members began the year with an academic interest in early education, with 288 (or 18% of) College Corps members majoring or minoring in early childhood education (ECE) or child development. A few others (12%) began the year with an academic interest in education (not including early childhood or child development). Together, they represent nearly one-third (30%) of the College Corps. *Note:* 62% of College Corps members reported their major or minor on the pre-service survey.

On the post-service survey, 237 (or 10% of) College Corps members indicated that, since starting Jumpstart, they have changed their major or minor to education (early childhood, child development, or elementary/secondary education). *Note:* 95% of College Corps members responded to this question. For the 2014-2015 year, these findings are difficult to interpret, however, given that 94 of those Corps members were returning Corps members. For them, the switch may have happened during the 2014-2015 year or during a previous year of service. The results are further complicated by the fact that College Corps members were asked to report on their majors *or* minors on the pre-service survey (item: Check if you have declared a major or minor in any of the areas below (select all that apply)) and on the post-service survey (item: Since starting Jumpstart, have you changed your major or minor to either of the following subjects?). To help with interpretation, these items are being updated for future administrations of the *Corps Member Survey*.

Future Careers

On the *Corps Member Survey*, Corps members were presented with seven future work options:

- teaching at the early childhood level (ages birth – 5 years),
- teaching at any level,
- broader work in education (e.g., policy, administration, advocacy, etc.),
- public/community service (e.g., public office, policy advocacy, non-profit organizations),
- full-time staff position(s) within the Jumpstart network (site, regional, national),
- other work with children ages 3-5, and
- pursuing a master’s degree in early childhood education, child development, education, or human services

and asked to rate how likely they were to pursue them. At the end of their service, 89% of Corps members indicated that they will likely pursue a career or education in at least one of these areas. The future work/education option that received the most interest was public/community service (e.g., public office, public policy, non-profit organizations), with 64% of Corps indicating that they would likely or very likely pursue a career in this area. The percentage of Corps members who expressed interest in this work increased by 7% from fall to spring, reflecting a statistically significant increase and the largest increase in Corps members expressing interest from fall to spring among all of the work/education options. The future work/education option that received the second most amount of interest in the spring was pursuing a master’s degree in ECE, child development, education, or human services, with 49% of Corps members indicating that they would likely or very likely pursue an advanced degree. The percentage of Corps members expressing interest in this area remained fairly stable throughout the year, with a slight (1%), non-statistically significant decrease from fall to spring. See Table 7.

Table 7

Percentage of Corps Members Expressing Interest in Future Careers or Education in Areas Relevant to Their Jumpstart Service in the Fall and Spring

At the end of their service, 89% of Corps members who responded to the future work questions reported that they will likely pursue a career or advanced degree in an area relevant to their service.			
Individual Items	Percentage of Corps Members Expressing Interest in the Fall	Percentage of Corps Members Expressing Interest in the Spring	Difference in the Percentage of Corps Members from Fall to Spring
Teaching at the early childhood level (ages birth – 5 years)	33%	34%	+1%

At the end of their service, 89% of Corps members who responded to the future work questions reported that they will likely pursue a career or advanced degree in an area relevant to their service.

Individual Items	Percentage of Corps Members Expressing Interest in the Fall	Percentage of Corps Members Expressing Interest in the Spring	Difference in the Percentage of Corps Members from Fall to Spring
Teaching at any level	45%	47%	+2%*
Broader work in education (e.g., policy, administration, advocacy, etc.)	41%	46%	+5%**
Public/community service (e.g., public office, policy advocacy, non-profit organizations)	57%	64%	+7%**
Full-time staff position(s) within the Jumpstart network (site, regional, national)	24%	24%	0%
Other work with children ages 3-5	43%	42%	-1%
Pursuing a master's degree in early childhood education, child development,	50%	49%	-1%

*The proportion of Corps members interested in this area in the fall was statistically significantly different than in the spring at the $p < .05$ level, as determined by an exact McNemer's test.

**The proportion of Corps members interested in this area in the fall was statistically significantly different than in the spring at the $p < .001$ level, as determined by an exact McNemer's test.

For this question on the survey, College Corps members were presented with all seven future work/education options at the same time. Therefore, it is not surprising to see interest distributed among the options, with no one career option associated with a very high percentage. Instead, the results indicate that we have a heterogeneous, diverse Corps; while 89% of members expressed general interest in education, individual Corps members expressed interest in a variety of options in the field – ranging from teaching to public service to continuing their education.

Knowledge and Beliefs About Early Childhood

Over the course of the year, Jumpstart Corps members displayed growth in their knowledge about early childhood practices (see Appendix C for responses to each item). In the fall, Corps members correctly answered an average of 15.3 questions (out of 21). In the spring, the number increased to 17.8 – a statistically significant difference ($t(2539) = -32.62, p < .001$), equivalent to a little more than two questions. The four questions associated with the lowest percentage of Corps members offering correct answers in the spring and the four questions associated with the highest percentage of correct answers are displayed in Figure 14. Two of the lowest scoring items are related to

children’s background/family engagement (Items: An understanding of a child’s individual personality, learning style, language, and family background is a component of developmentally appropriate practice; Communicating with families about children’s interests and the activities they do in early childhood settings can help families support their children’s learning at home). *Note:* Respondents could skip items so exact response rates vary, but the response rates for each Early Childhood Practice question range from 98% to 100%.

Item	Percentage of Corps members who correctly answered
Items associated with the lowest percentage of Corps members offering correct answers in the spring	
Sounding out a child’s name, “Paola starts with a /p/ sound,” helps develop phonemic awareness. <i>(Correct answer: True)</i>	41%
Young children learn most when they have opportunities to touch, explore, manipulate, and experiment with the world around them. <i>(Correct answer: True)</i>	74%
An understanding of a child’s individual personality, learning style, language, and family background is a component of developmentally appropriate practice. <i>(Correct answer: True)</i>	74%
Communicating with families about children’s interests and the activities they do in early childhood settings can help families support their children’s learning at home. <i>(Correct answer: True)</i>	76%
Items associated with the highest percentage of Corps members offering correct answers in the spring	
Children develop alphabet knowledge by memorizing how to spell their names. <i>(Correct answer: False)</i>	98%
Because young children generally understand only the words that they use in their own speech, adults should intentionally use simpler vocabulary to communicate with children. <i>(Correct answer: False)</i>	98%
The skill of comprehension is best supported by asking children closed-ended questions. <i>(Correct answer: False)</i>	98%
Children who are behind in language and literacy development in preschool usually catch up with other children’s reading and writing abilities in later schooling. <i>(Correct answer: False)</i>	98%

Figure 14. The four questions associated with the lowest percentage of Corps members offering correct answers in the spring and the four questions associated with the highest percentage of correct answers.

In addition to looking at item-level findings, the percentage of Corps members who displayed an overall increase in knowledge from fall to spring can also be explored; 71% of Corps members who responded to the early childhood practices questions demonstrated an increase in knowledge from the *Pre-* to *Post-Service Survey*.

Corps members' knowledge about early childhood practices changed during the year. As their knowledge changed and the evidence that they gathered about the field of ECE increased, this appears to have had an impact on their beliefs. In fact, at the end of their service, 73% of Corps members reported that their experiences in Jumpstart impacted their personal beliefs about ECE "a lot."

Corps Member Opinions of Jumpstart

In the post-service survey, Corps members were asked to answer questions about their experiences in Jumpstart. Seventy-seven percent of College Corps members said they felt the Jumpstart experience has helped them academically (*Note: 98% of College Corps members responded*). Ninety-six percent of Community Corps members agree or strongly agree that participation in Jumpstart helps keep their mind active (*Note: 97% of Community Corps members responded*).

All Corps members were asked to rate their levels of satisfaction with various aspects of the Jumpstart program using a four-point scale, where 1 = Strongly Disagree and 4 = Strongly Agree. As shown in Table 8 below, the percentage of Corps members responding with a three or four are summed to indicate high levels of satisfaction. Corps members appear to be highly satisfied with all aspects of the program; in fact, 97% report they are satisfied with their experience in Jumpstart overall. Almost all Corps members who answered this item reported that they are proud of their service in Jumpstart (99%) and would recommend serving in Jumpstart to peers (96%). Further, 97% of Corps members agree their Jumpstart experience enabled them to build leadership skills and the majority of College Corps members (85%) agree their Jumpstart experience has helped them feel more connected to their college/university. *Note: Respondents could skip items so exact response rates vary, but the response rates for each item range from 97.6% to 98.2%.*

Table 8
Jumpstart Corps Members' Level of Satisfaction

Program Aspects	Agree/Strongly Agree
The training at the <u>beginning</u> of the school year prepared me for my role and experience in the classroom.	92%
The ongoing training <u>throughout</u> the school year prepared me for my experience in the classroom.	89%
I was satisfied with the materials and guidance provided to me by Jumpstart (e.g., session plans and materials packets).	96%
My site manager(s) gave me ongoing support throughout the year.	96%
My team leader gave me ongoing support throughout the year.*	93%
The observation and feedback process was effective in helping my team and me improve session implementation and our work with the children we served in sessions.	92%
Team planning meetings helped my team and me to prepare for session implementation.	95%
My Jumpstart site manager(s) did a good job communicating important information to Corps members.	95%
I built a strong relationship with program partner (preschool) staff through my interactions with them in sessions and classroom assistance time.	92%
My Jumpstart experience has helped me feel more connected to the community in which I served.	94%

Program Aspects	Agree/Strongly Agree
My Jumpstart experience has helped me feel more connected to my college/university.*	85%
My Jumpstart experience has enabled me to build leadership skills.	97%
I am satisfied with my experience in Jumpstart	97%
I would recommend serving with Jumpstart to my peers.	96%
If my schedule permits, I would enjoy enrolling in another term with Jumpstart.	87%
I am proud of my service with Jumpstart.	99%

*Note: Respondents were given the option to choose “NA” for these two items.

Summary of Corps Member Outcomes

Overall, the Jumpstart experience is positive and rewarding for the Corps members who serve. Survey results indicate Jumpstart provides opportunities for Corps members to grow academically and develop skills that are beneficial for future careers in the early education field and beyond.

CONCLUSION

Jumpstart’s current theory of change (TOC) maps out how the organization’s work relates to its vision that every child in America enters kindergarten prepared to succeed. Jumpstart’s TOC is comprised of three core preconditions to reach this goal:

- Children from under-resourced neighborhoods experience enriched learning environments and develop critical cognitive and social-emotional skills
- The early learning workforce is prepared, supported, and appropriately compensated
- National and state policies and programs support ECE workforce development and increase public support for high-quality ECE

Within its Logic Model, Jumpstart has a child-level outcome and two classroom-level outcomes tied to the TOC:

- Children from under-resourced communities are on-target with early literacy skills as an element of kindergarten readiness
- Corps members become ECE educators
- Corps members become champions for high-quality ECE for all

Through its current evaluation efforts, Jumpstart is in a position to assess components of these outcomes through two of the research questions addressed in this report:

1. Did Jumpstart participants demonstrate gains in language and literacy skill development over the course of the program year?
2. In what ways did the Jumpstart experience benefit its Corps members?

The results related to the first question show that Jumpstart children demonstrated gains in language and literacy over the course of the year as measured by the *JSSC* and the *TOPEL*, with 90% of Jumpstart children demonstrating gains on the *JSSC* and 76% demonstrating gains on *TOPEL*’s ELI. At the end of the year, 77% of Jumpstart children received at least an average standard score on *TOPEL*’s ELI, indicating that these children perform like (and in

some cases, better than) most children their age and are likely on-target for language and literacy skills in terms of kindergarten readiness. Future reports will further discuss *TOPEL* results in relation to kindergarten readiness.

The results related to the second question revealed that, at the end of their 2014-2015 year of service, 34% of Corps members are interested in becoming early childhood educators. Corps members also showed interest in other early childhood work/other work with children ages 3-5 (42%) and areas that may affect ECE such as broader work in education (e.g., policy, administration, advocacy, etc.) (46%) and public/community service (e.g., public office, policy advocacy, non-profit organizations) (64%).

Given that Jumpstart's current TOC and Logic Model were included in the 2015 - 2018 Strategic Plan, which was released in February 2015, well into the 2014-2015 program year and after evaluation tools had been implemented, the remaining components of the Logic Model (e.g., assessing whether or not Corps members become champions for high-quality ECE for all) will be assessed in future years. However, the evaluation outcomes described in this report reveal that Jumpstart is working to transform early education by impacting children and the early education workforce.

Appendix A

List of Jumpstart Sites

American University*	Pace University
Atlanta Community Corps	Pepperdine University
Atlanta University Center	Pitzer College
Boston College	Roosevelt University
Boston Community Corps	Roxbury Community College
Boston University	Rutgers University - Camden
Bridgewater State University	Rutgers University – Newark*
Brooklyn College	San Francisco State University
California State University - Dominguez Hills	Seattle University*
California State University - Fresno	Simmons College with Colleges of the Fenway
California State University - Fullerton	Southern Connecticut State University
California State University - Los Angeles	St. John's University
California State University - Northridge	St. Mary's College
Catholic University of America	Suffolk University
Central Connecticut State University*	Temple University*
Columbia University/Barnard College	Texas Tech University*
DePaul University*	The George Washington University
Dominican University	Tufts University
Eastern Connecticut State University	University of California - Berkeley
Emerson College	University of California - Irvine
Fordham University*	University of California - Los Angeles*
Georgetown University	University of Chicago
Georgia Institute of Technology**	University of Connecticut
Georgia State University	University of Massachusetts – Boston*
Howard University	University of Massachusetts Lowell
Kean University	University of Mississippi
Lehman College	University of Missouri - Columbia
Long Island University	University of Missouri - Kansas City
Los Angeles Community Corps	University of Pittsburgh*
Loyola University Chicago	University of Rhode Island*
Merrimack College	University of Southern California
Merrimack Valley Community Corps*	University of the District of Columbia
Middlesex/Northern Essex Community College	University of Washington*
Monroe College	Washington, DC Community Corps
Montclair State University	Wheelock College*
New York University	Whittier College*
Northeastern University	York College
Northwestern University*	

* Indicates a National Direct site included in the TOPEL evaluation sample

** Child and Corps member outcome data from the Georgia Institute of Technology is not included in this evaluation report

Appendix B

Comparison of Child and Corps member demographic questions

What language is most spoken in your home? Please circle ONE language only.

English Spanish Chinese Vietnamese Hmong Korean

Portuguese Haitian Creole Arabic Other _____

What other languages are spoken in your home? Please circle all languages that apply.

English Spanish Chinese Vietnamese Hmong Korean

Portuguese Haitian Creole Arabic Other _____

What language does your child feel most comfortable speaking? Please circle ONE language only.

English Spanish Chinese Vietnamese Hmong Korean

Portuguese Haitian Creole Arabic Other _____

What race and ethnicity is your child? Please check all boxes that apply.

American Indian or Alaska Native Native Hawaiian or Other Pacific Islander Asian

White Black or African American Latino/a Other _____

What gender is your child?

Male Female

Demographic questions asked on child consent form

I. GENERAL INFORMATION		
1) Corps member name: _____ 2) Date of birth: ____ / ____ / ____		
	First	Last
3a) Ethnicity – Please check ONE: (Optional)	<input type="checkbox"/> Hispanic/Latino/Spanish culture or origin	<input type="checkbox"/> Non-Hispanic/Latino/Spanish culture or origin
3b) Race – Please check ALL that apply: (Optional)	<input type="checkbox"/> Black or African American <input type="checkbox"/> Asian <input type="checkbox"/> American Indian or Alaska Native	<input type="checkbox"/> White <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input type="checkbox"/> Other: _____
4) First language – Please check ONE language that applies:	<input type="checkbox"/> English <input type="checkbox"/> Spanish	<input type="checkbox"/> Other – please specify: _____
5) Other languages – Please check ALL languages that apply:	<input type="checkbox"/> English <input type="checkbox"/> Spanish	<input type="checkbox"/> Other – please specify: _____
6) Are you/were you a first-generation college student? (i.e., neither of your parents have earned a bachelor’s degree even though they may have some postsecondary education experience.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A – I did not attend college

Demographic information asked on Corps Member Pre-Service Survey

Appendix C

Correct answers to ECP Questions

Items	True	False
1) There are two types of vocabulary skills, expressive (words children use) and receptive (words children understand).	X	
2) In a preschool classroom of 3-5-year-olds, it's typical for individual children's vocabularies to range anywhere from 2,000 to 8,000 words.	X	
3) Adults should use the same approach to instruction and offer identical supports for all young children.		X
4) Reading storybooks and engaging children in activities focused on specific content topics in early childhood supports their later literacy skills.	X	
5) Sounding out a child's name, "Paola starts with a /p/ sound," helps develop phonemic awareness.	X	
6) If young children argue or experience conflict, it is best for adults to solve the problem so that children can move on to planned learning activities.		X
7) Young children learn most when they have opportunities to touch, explore, manipulate, and experiment with the world around them.	X	
8) It is easy for young children to be able to take another person's perspective and consider how others might be feeling.		X
9) Children develop alphabet knowledge by memorizing how to spell their names.		X
10) An understanding of a child's individual personality, learning style, language, and family background is a component of developmentally appropriate practice.	X	
11) A child who can distinguish between the words and pictures in a storybook is developing understanding of the meaning and use of print.	X	
12) Communicating with families about children's interests and the activities they do in early childhood settings can help families support their children's learning at home.	X	
13) Identifying rhymes introduces children to the idea that a word can be broken into parts.	X	
14) Young children often need adults to explain and show them how they are expected to participate when new activities or routines are introduced.	X	
15) Although children develop in different ways at different paces, overall development proceeds in a fairly predictable sequence.	X	
16) Because young children generally understand only the words that they use in their own speech, adults should intentionally use simpler vocabulary to communicate with children.		X
17) Activities that build phonological awareness and books and print knowledge help children connect speech to print so that they can "crack the code" of written words when they begin to read.	X	
18) Children who are behind in language and literacy development in preschool usually catch up with other children's reading and writing abilities in later schooling.		X
19) The skill of comprehension is best supported by asking children close-ended questions.		X
20) Children from low-income backgrounds have been shown to fall behind their peers in language and social skills development as early as age 2.	X	
21) Children's cognitive abilities when they enter kindergarten are strongly linked to the likelihood that they will complete high school.	X	