

Evaluating a Large-Scale Intervention with Alief ISD

The Problem

BY THE TIME CHILDREN ENTER KINDERGARTEN, disparities in school readiness already exist across socio-economic groups. Fewer than half of poor children are ready for school at age 5, compared with 75 percent of children from families with moderate and high income, a 27-percentage point gap.⁷ Recent research shows the quality of the early environment, when fundamental skills are developed, can explain some of these differences. Small-scale interventions that target malleable skills during these sensitive periods of development have been shown to improve parental investments and boost child development. However, the evidence about the impact of large-scale parenting interventions—where maintaining high quality of implementation is more challenging—has been mixed. We collaborated with the Alief Independent School District (AISD) to evaluate its *JumpStart* Program, a large-scale parenting intervention aimed at preparing 3-year-olds for entry into kindergarten at AISD.

The Program

To be eligible for the *JumpStart* Program, parents must live within the AISD catchment area and have a child who is between 36 months and 47 months old. The *JumpStart* Program, developed by AISD staff, guides parents to teach their children foundational skills for the AISD Pre-K program. The 22-week curriculum is closely aligned with the district's pre-K program and includes learning colors, acquiring fine motor skills, counting, name recognition, and book handling. Three times each month, over an eighth-month period, parents meet for one hour with an Alief ISD family liaison at their local elementary school in a group setting. The children join the third meeting of each month to enable the family liaison to assess parent fidelity to the curriculum. The cost of materials for the *JumpStart* Program was less than \$200 per family, while the training and labor costs were under \$150 per family.

Target Population

AISD serves more than 46,000 students⁸, 83% of whom are economically disadvantaged and 43% of whom are English Language Learners. Across the 24 AISD elementary schools, 71% of the children come from families that qualify for free or reduced-price lunch. The *JumpStart* Program tends to serve low-income families (more than 50% receive food stamps), minority families (57% of the parents are Hispanic, and 25% are Black) and parents with low levels of education (35% have completed less than 12 years of schooling).

⁷ https://www.brookings.edu/wp-content/uploads/2016/06/0319_school_disadvantage_isaacs.pdf

⁸ Data for the 2017-18 academic year.

Our Work

We implemented a randomized controlled trial (RCT) to evaluate the effects of the *JumpStart* Program on school readiness and a set of parental investments, such as the frequency the parents reads to the child, the number of children’s books at home, or whether the parents engage in various learning activities with their child. To measure school readiness, we used the *JumpStart* baseline test and the Bracken School Readiness Assessment, which allowed us to assess whether the program affected skills not targeted by the *JumpStart* curriculum.

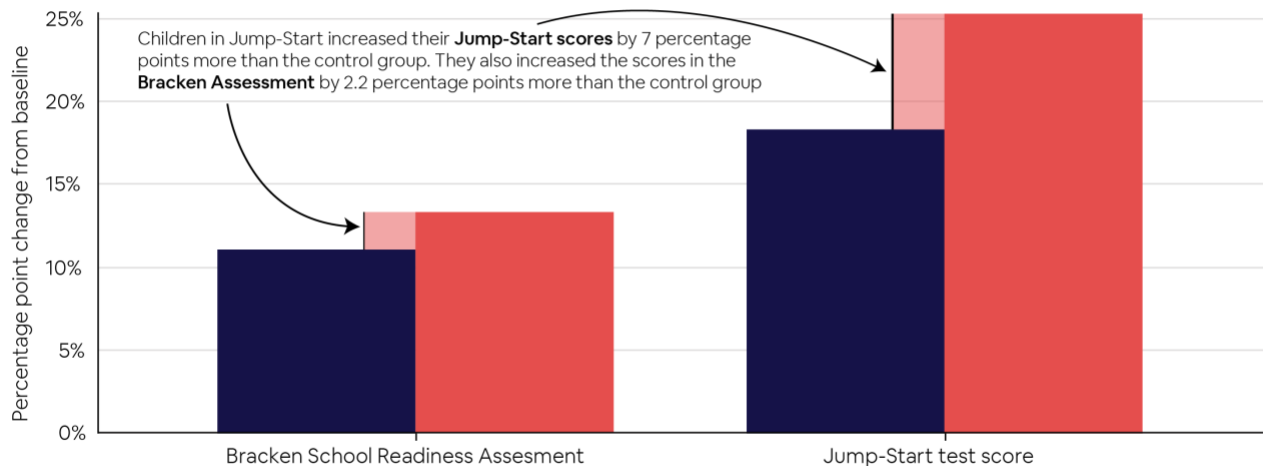
We also went beyond quantifying the impacts of the program and built a structural model that uncovers mechanisms through which the program affects children’s school readiness. The model allows the effectiveness of parental investments, measured by the frequency the parents read to their child, in developing children’s skills to vary between families. Furthermore, it tests whether the program increased the effectiveness of parental investments at developing skills, and whether this possibility leads parents to increase their parental investments.

Results

Children who received the *JumpStart* intervention showed modest gains in acquiring the skills targeted by the program curriculum, with scores increasing by seven percentage points more than for children in the control group. These gains were particularly concentrated among a subset of measures, namely name recognition and book handling. We also found evidence of a small *JumpStart* spillover effect on content areas not directly covered by the curriculum, as measured by the Bracken School Readiness Assessment scale. The results from the RCT also show the program increased some parental investments, such as the frequency parents read to their children, which grew by roughly half a day more per week in the treatment group than in the control group. However, the RCT found no effects on some other parental investments, such as whether the parent engages in activities to help the child learn the alphabet or colors.

Changes in school readiness assessments

Control vs. Jump Start participants



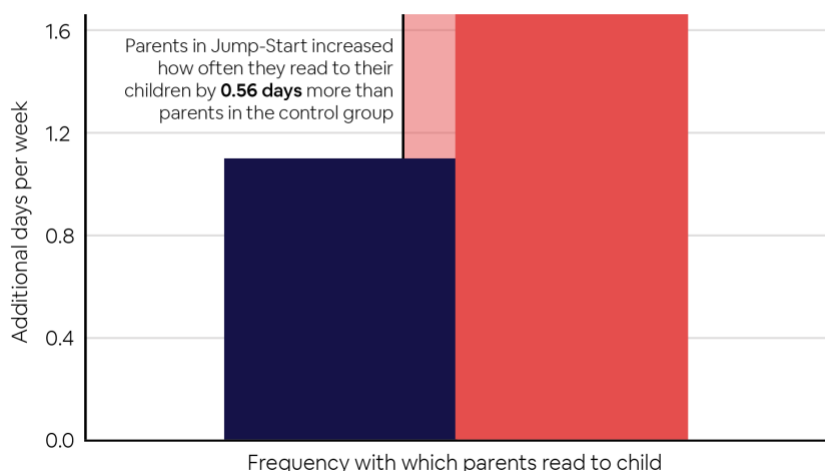
Selected results from Tables 6, 7, and 8 in "Cunha, F. and Wolpin, K. 2019. An Evaluation of the Alief Independent School District Jump Start Program: Using a Model to Recover Mechanisms from an RCT"

Differences between treatment and control groups are differences estimates of program effects.

Effect estimates significant at the 1% level for Jump-Start scores and reading frequency, significant at the 5% level for Bracken scores.

Change in frequency of parent reading to child

Control vs. Jump Start participants



Using the structural model, we evaluated whether the observed impact on children’s knowledge is due to an increase in the effectiveness of parental time spent reading to their child. The estimates of the model confirmed this hypothesis. The model estimates also imply that parents react to this added effectiveness by increasing the frequency with which they choose to read to their child.

Impact

The *JumpStart* Program trained parents to engage more effectively with their children on skills that are perceived to be foundational for Pre-K success by AISD teachers. Future collaborations will be able to assess whether the program will also have medium- and long-term benefits as the children in the *JumpStart* study progress through school.

Decisions at AISD affecting funding, the district’s service population, curriculum, and future research have all been informed by the results of our work and our ongoing partnership. The district is now supporting home-based early childhood programs with federal funding, freeing up individual campus budgets while demonstrating to families the value of their participation. Furthermore, as put by Shanceler Terry, Family and Community Engagement Coordinator at AISD,

“Families also see the data and evidence of impact and understand the value of participating. An understanding of the brain development research is critical for working younger children has now been transferred to staff. That knowledge allows us to serve our families better across the board. I often speak of the power of this work all over the state.”