

California Head Start Child Outcomes Bulletin 2010



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We thank the 15 Head Start programs from across California who contributed their data to this analysis

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Tulare County Office of Education

California Head Start Programs Improve Child Development

Participation in Head Start was associated with seven to nineteen percentage point increases

in the number of children in the top developmental levels. This finding comes from the first ever analysis of child assessment data on 6,600 children collected from 15 Head Start programs from across California. Such increases in child development are comparable to that found in other quality preschool programs and is direct evidence that these California Head Starts provide quality child development programs.

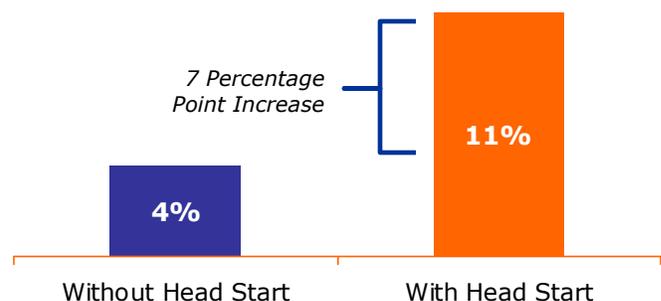
That quality preschool programs provide significant developmental advancement to children and significant benefits to society as a whole are well established in the academic literature. The key word, of course, is "quality." While many regulations are in place to ensure that Head Start and other government subsidized preschool programs maintain high quality standards, there are currently few, if any, operational metrics against which to track quality or program impact.

Many Head Start programs in California use the Desired Results Developmental Profile – Revised (DRDP-R) to assess and track child development. The DRDP-R was developed by the California Department of Education. Use of this operational data to measure program outcomes is imperfect, but does provide reasonable estimates of the

positive impact that Head Start has on child development.

Children from all backgrounds were better prepared for school in all areas of development thanks to these Head Start programs. For example, as shown in the graph below, the estimated percentage of children in the top two developmental levels was 11% for children with Head Start the prior year and 4% for children without Head Start. The difference, 7 percentage points, is the estimated impact of these Head Start programs in the areas of Language and Literacy.

Head Start Programs Improve Language and Literacy
Percentage of Children with Ratings in the Top Two Developmental Levels Controlling for Age and Other Demographic Variables



Head Start Children Achieve Higher Developmental Levels

Children with prior experience in Head Start were at a higher developmental level as measured by the DRDP-R in the fall of 2008 than the comparison group of newly enrolled children of the same age.

- Increased developmental levels were found across all developmental domains.
- Motor skills showed the largest difference – the percentage of children scoring in the top two developmental levels increased by 19 percentage points. Includes: gross motor (e.g. "Climbs on a jungle gym"), fine motor skills (e.g. "holds crayon with fingers instead of fist"), and balance.
- In both Language & Literacy and Math the percentage of children scoring in the top two developmental levels increased by more than seven percentage points.

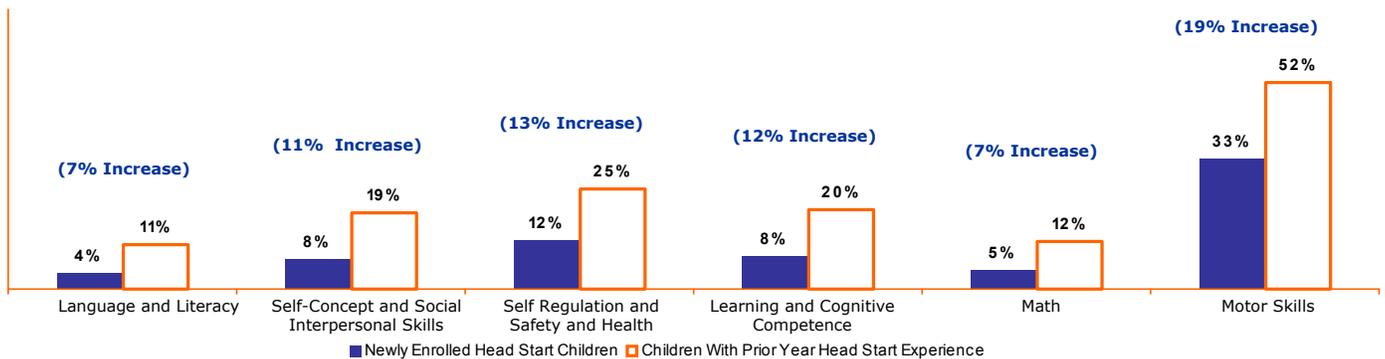
How do I Interpret these Figures?

The graphs on this page show the percentage of children in the top two developmental levels who are new to Head Start compared to children with prior enrollment in Head Start. The difference between the two figures - the increased percentage - is a rough but reasonable estimate of the impact of Head Start enrollment.

The figures control for age, race/ethnicity, language and gender.

Children with Experience in Head Start Achieve Higher Developmental Levels Across All Developmental Domains

Percentage of Children in the Top Two Developmental Levels Controlling for Age and Other Demographic Variables.



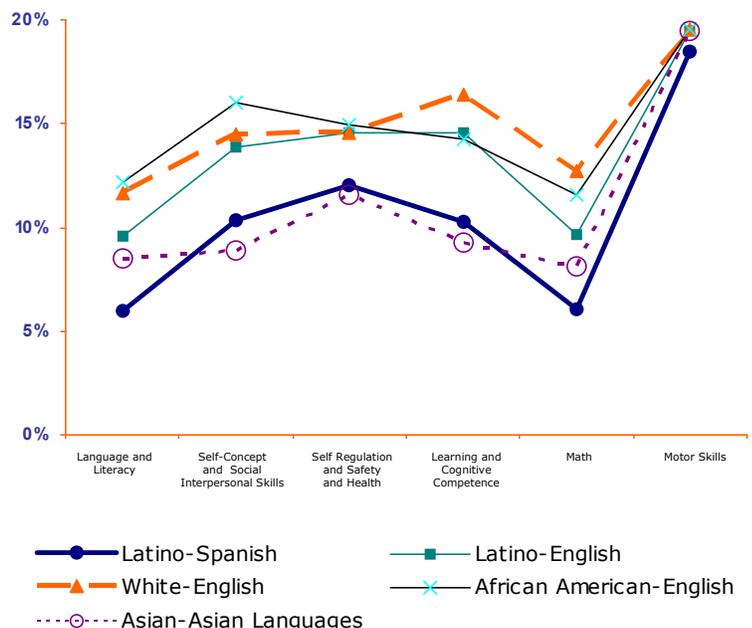
Head Start Programs are Associated with Increased Development for All Languages and Ethnicities

Regardless of language or ethnicity all children with Head Start participation showed significantly higher development across all domains.

- Children with English as their primary language all benefited similarly from the programs – regardless of ethnicity
- Children whose primary language was something other than English face the dual challenge of learning English and acquiring the typical developmental skills. These children also showed significant improvement across all developmental domains.

Percentage Point Increase

Between Children with and without Prior Year Head Start Enrollment Controlling for Age and Other Demographic Variables



# of Children	Spanish		English			Asian Languages	Other
	Latino	Latino	White	African American	Asian	Other	
Newly Enrolled Sample	1,796	550	247	148	112	407	
Prior Enrolled Sample	1,902	461	195	173	161	468	
Total Children	3,698	1,011	442	321	273	875	

The Methodology



The Data Set

Desired Results Developmental Profile-Revised (DRDP-R) data were gathered on more than 14,000 children from the 15 participating Head Start grantees. The primary data analysis focused on 6,600 center based children. (Children with incomplete data sets, not in center based programs, or children with identified special needs were not included in the analysis.)

The information collected included the assessment scores from the DRDP-R conducted in the fall of 2008 and repeated in the spring of 2009. Additionally, demographic data and prior participation in Head Start were considered.

	Spanish	English	East Asian Languages	Other Languages
Children in Prior Enrollment Sample	62%	29%	5%	4%
Children in Newly Enrolled Sample	60%	33%	3%	3%
Statewide Head Start Enrollment	54%	39%	3%	3%

The Analysis

The children were divided into those children with half a year or more of prior Head Start enrollment and those without prior enrollment (the comparison group). The group without prior enrollment were enrolled for less than 60 days. The developmental scores from the fall of 2008 for the two groups were compared controlling for age, race/ethnicity, language, and gender.

A logit regression model was used to determine the probability of the children being in the top two of four developmental levels on the DRDP-R. Most children reach the top two developmental levels by the end of preschool.

Data Limitations

Other factors besides prior enrollment in Head Start may influence the difference in development levels between the two groups in the fall of 2008. For example, children who enroll earlier in Head Start may have more involved parents or more enriched home environments, which could lead to higher development. We test for this effect by following both groups of children from the fall

of 2008 to the spring of 2009 and find that both have the same rate of growth during the year. While this would lead us to believe that the difference we see in the groups is the result of the Head Start program, a limitation of the analysis is that we cannot be sure. A more structured research design would be required to eliminate the possibility of selection bias.

A second issue is that some of the children new to Head Start may have been enrolled in another child development program in the prior year. To the extent that this is the case, then the analysis underestimates the impact of Head Start.

Technical Information

For a more detailed explanation of the methodology and supporting data, please visit www.childcarerresults.com/ChildOutcomes2010

The DRDP-R Assessment and School Readiness

The Desired Results Developmental Profile– Revised (DRDP-R) was developed by the California Department of Education. The DRDP-R assessment for Preschoolers includes 39 measures within ten indicators. The indicators include fundamental areas of development (e.g. Math, Literacy, Social and Interpersonal Skills) and have been aligned to the Head Start outcome framework domains. Each child is assessed on the measures of child development. Within each measure, children score one of four developmental levels. Children are assessed within 60 days of enrollment and either three and six months later, or only six months later.

In validating the tool, researchers combined the indicators into six developmental domains. The analysis in this bulletin reports on these six developmental domains. The analysis does not include the English

language learners measures, added in the Head Start version of the DRDP-R. These measures specifically address the development of language skills for non-English speaking children but were not included in CDE studies validating the tool.

Research on the DRDP-R demonstrates that most children reach the third developmental level by the end of preschool. While this is not a research-based indicator of school readiness, it is a useful informal benchmark. The analysis in this bulletin uses that level of development as a benchmark to evaluate the impact of Head Start programs on Child Development. Throughout this bulletin, you will see the language referring to the “top two developmental levels”. This indicates that children are at or above the third developmental level (out of four) within each developmental domain.

The Impact of Preschool

The findings of this analysis provide evidence that the California Head Start programs included in this child outcomes bulletin produce positive impacts similar to other quality programs.

Quality preschool programs have been demonstrated to have significant impacts on school readiness and long-term child outcomes. Below is RAND's summary of what is known about the impacts of preschool:

"[A] review of the rigorous evaluations of high-quality preschool programs demonstrates that well-designed programs that serve children one or two years before kindergarten entry can

- improve measures of school readiness,
- raise performance on academic achievement tests in the early elementary grades,
- generate sustained effects on academic achievement into the middle-school years ...
- [reduce] special-education use and grade repetition and
- [increase] rates of high-school graduation"

Karoly, Lynn A., *Preschool Adequacy and Efficiency in California: Issues, Policy Options, and Recommendations*, Santa Monica, Calif.: RAND Corporation, 2009.

Measurement An Example of the Developmental Levels Attained through Head Start

To understand the impact of preschool on children, take the example of measurement. In this analysis, a child enrolled in a Head Start program is more than 2.5 times as likely to make the conceptual leap from comparing objects ("my daddy is bigger than me") to trying to measure the size of objects (uses a measuring tape to try to measure daddy). Such growth may seem small to adults, but are a critical foundation to future learning.



The Head Start Program

Head Start/Early Head Start is a federally-funded comprehensive child development program for very low-income young children and their families. Since its inception in 1965, more than 20 million children and families nationally have benefited from Head Start's comprehensive services. Statewide, this number is in excess of one million children and families. The primary target population for Head Start/ Early Head Start is children between the ages of 0-5 and pregnant women from families living below the federal poverty line.

Head Start programs provide a comprehensive care model, including Family Services, Education, Nutrition, Health and Wellness, Disabilities, and Mental Health for children and families. The DRDP-R and the findings of this document represent only a small portion of the benefits of the Head Start program.

About the California Head Start Association

The California Head Start Association is the unified voice providing leadership and advocacy for the Head Start community.

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The Collaboration

This document and the supporting analysis were constructed through a creative collaboration of Child Care Results, the California Head Start Association, and the fifteen participating Head Start programs listed on the front page. The analysis was conducted by Child Care Results in the fall of 2009. A supporting methodology section can be found online at:

www.childcareresults.com/ChildOutcomes2010

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An electronic copy of this report is available at:
www.caheadstart.org/ChildOutcomes2010



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