



**June 2015:  
The Research Base for Full-Day Head Start**

## **Background**

Since President Obama proposed an additional \$1.1 billion for Head Start to increase access to full-day, full-school-year services last winter, there's been a flurry of conversation about what it would take - besides money! - to expand full-day services. In the survey NHTA conducted this spring, about 78% of the 300 grantees who participated offered at least one classroom of full-day Head Start, though many programs offer both part-day and full-day options for three and four-year-olds. The PIR reflects that about 57% of three and four-year-olds are enrolled in full-day Head Start, but this rate varies dramatically from state to state and region to region.

All of that provides important context for the Notice of Proposed Rulemaking for the Head Start Program Performance Standards and a new national standard for three and four-year-olds that "A program must offer a minimum of six hours of operation per day but is encouraged to offer longer service days if it meets the needs of children and families." NHTA is working to analyze the full range of changes proposed and to make comments that reflect the insights of the Head Start community, the implications and consequences for programs, and the recognition that families have [different desires and beliefs](#) about preschool. For the full-day proposal in particular, it is important to respond both to what is practical in terms of timelines and scale but also to what the research tells us is best for children. The studies below describe the research base for full-day Head Start and raise questions we should be discussing as a community as we move forward. We look forward to hearing your thoughts and invite you to join a webinar about responding to the standards NPRM on July 7th - [register here!](#)

---

## **Resources**

### **[Notice of Proposed Rulemaking](#)**

The Notice of Proposed Rulemaking (NPRM) for the Head Start Program Performance Standards spells out exactly what new standards are proposed, what the major changes are, and what the standards would cost to implement. These standards are out for public comment until August 18th, 2015.

## Official Standards Coverage

Familiar voices from the Administration have taken to the blogs this week to articulate the importance of the proposed standards. Take a look at what they have to say:

- [Blanca Enriquez](#), Office of Head Start
- [Linda Smith](#), Administration for Children and Families
- [Sylvia Burwell](#), Department of Health and Human Services
- [Cecilia Munoz](#), the White House Domestic Policy Council

## [Partners for Success: Case Studies of Collaboration Between Head Start and Pre-K](#)

On NHTSA's recent field survey, many programs offering full-day services reported doing so through blending Head Start funds with pre-K or child care funding sources. This case study report from NHTSA, written in 2012, explores some of the states and communities where Head Start and pre-K are working together effectively. Many are able to offer full-day services as a result.

---

## Research

### [Inputs in the Production of Early-childhood Human Capital: Evidence from Head Start](#)

by Christopher Walters

Using data from the Head Start Impact Study, Christopher Walters asks whether several features of Head Start programs contribute to variations in children's outcomes between programs. The author assumes that short-run cognitive and social-emotional effects are good predictors of long-run effectiveness. He explains to what extent the following six inputs account for variation in children's outcomes: teacher education, teacher certification, class size, instruction time, the High/Scope curriculum, and home visiting. These factors were chosen because they were deemed crucial to the success of the Perry Preschool Project.

While the six inputs combined explain less than 15 percent of short-run cognitive effects, instruction time and home visiting stand out. Walters finds that Head Start programs offering full-day services are most successful in increasing cognitive skills and that programs requiring three or more home visits per year are most successful in raising non-cognitive skills. Variation across programs matters. The author points out that a Head Start program in the 84<sup>th</sup> percentile of program quality increases a child's lifetime earnings by 3 percent as compared to a child in an average Head Start program. This increase represents an earnings effect of \$5,500 in 2010 dollars. These findings provide support for offering full-day services with complimentary home visits and other strategies for maintaining strong family engagement.

### [Experimental Evidence on Early Intervention: The Impact of Full-day Kindergarten](#)

by Chloe Gibbs

While three, four, and five-year-olds may be developmentally ready for different types of school settings, there are also insights we can draw from what low-income kindergartners gain from part or full-day programming. Chloe Gibbs tests whether full-day kindergartners have higher literacy rates than half-day kindergartners at the end of the kindergarten year. While she focuses on

kindergarten, Gibbs cites evidence from Head Start and similar programs to support her study's premise: intervention in a child's early years affects academic, socio-economic, and physical well-being.

As it turns out, full-day kindergartners who are eligible for free or reduced lunch perform better than similar students in half-day kindergarten. Furthermore, nonwhite, Hispanic students in full-day kindergarten perform significantly better than their peers in half-day kindergarten. Full-day kindergarten also has the most impact for students who enter kindergarten with low literacy. Given the specific positive effects on poor and/or Hispanic students, Gibbs suggests that full-day kindergarten be targeted towards specific groups of students at kindergarten entry.

### **Association of a Full-Day vs. Part-Day Preschool Intervention with School Readiness, Attendance, and Parent Involvement**

by Arthur Reynolds, Brandt Richardson, Momoko Hayakawa, Erin Lease, Mallory Warner-Richter, Michelle Englund, Suh-Ruu Ou, and Molly Sullivan

Housed within the Chicago Public Schools system, the Child-Parent Center Education Program (CPC) is similar to Head Start in its holistic approach to early childhood education. In 2012, CPC added a full-day option for 11 of its 16 sites. Arthur Reynolds and his team of researchers examine the effectiveness of full-day versus part-day services within the program. They measure student performance with Teaching Strategies GOLD to look at literacy, oral language, math, cognitive development, social-emotional development, physical health, and attendance. To the authors' knowledge, theirs is the first study to include attendance, social-emotional development, and physical health as indicators of student performance when comparing full-day and part-day.

Reynolds and his team find that full-day participants do better in the areas of language, math, social-emotional development, and physical health than their part-day peers. Full-day students are more likely to score at or above the national average in examinations of literacy, math, social-emotional development and language development as compared to part-day students. Finally, full-day children have higher attendance rates than part-day children. There are not, however, differences in parental involvement between the two models.

### **Social regulation of the cortisol levels in early human development**

by Megan Gunnar and Bonny Donzella

Megan R. Gunnar and Bonny Donzella review studies of cortisol levels in children between birth and 5 years of age. Cortisol is a hormone typically associated with stress. In a stressful situation, cortisol levels rise so that the body may react appropriately, often with a "flight or fight" response.

One study found that preschool aged children have lower cortisol levels in child care settings when compared to the cortisol levels they would have had at home, suggesting positive effects from bonding with children their age. Another study concludes that there is a correlation between quality of child care and cortisol, with children in lower-quality care showing higher levels of stress. It is particularly noteworthy that children around the age of three experienced the highest

level of stress in child care settings, presumably because they were still learning to navigate social relationships. This was worst for children experiencing rejection by their peers.

Most relevant to the conversation about full-day services, one study showed that three to five-year-old children in full-day center-based settings showed larger stress increases over the course of the day if they were in lower-quality settings, though even the "lower" range of child care settings in the study were fairly good. There may be valid concerns about the social competence children at this age need to be successful in a full-day classroom or about the social-emotional support teachers and programs need to be able to provide in these settings.

### [Evaluating Lasting Effects of Full-day Prekindergarten Program on School Readiness, Academic Performance, and Special Education Services](#)

by Huafang Zhao and Shahpar Modarresi

In the 2007-2008 school year, ten elementary schools in the Montgomery County Public Schools (MCPS) district began offering full-day Head Start classes. Huafang Zhao and Shahpar Modarresi compare end-of-kindergarten performance for children who participated in full-day Head Start, MCPS half-day pre-K, and those that had no MCPS pre-K experience. They also compare each group's need for special education throughout kindergarten.

Students from full-day Head Start were more likely to be reading proficiently by the end of kindergarten than students from the other groups. Among the subgroups studied, African American children who participated in full-day Head Start were disproportionately more successful by the end of kindergarten compared to their peers who had not participated in Head Start. Students from all groups performed at the same level in math by the end of kindergarten. Zhao and Modarresi find that students from full-day Head Start received an average of 3.7 hours of special education per week in kindergarten while their peers with no MCPS pre-K experience received 9.8. They conclude that more hours of instruction in the pre-Kindergarten years means less special education along the line, at dramatic savings to the district and benefits to the children's achievement. The authors present full-day Head Start as an important and effective investment.

---

### **Discussion Questions**

1. How many of your program's children are in full-day classrooms now? What would it take for your program to scale that up?
2. Have you witnessed the added stress that some children experience over the course of a full-day program the way that Gunnar and Donzella describe?
3. Which standards besides full-day would be most exciting or challenging for your program to implement?

*Do you know of other recent research that may be of interest to the Head Start field? Do you have other questions, comments or concerns? E-mail Emmalie Dropkin ([edropkin@nhsa.org](mailto:edropkin@nhsa.org)).*