



# **Child and Family Outcomes During the Head Start Year: FACES 2014-2015 Data Tables and Study Design**



OPRE Report 2017-100  
December 2017



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# Child and Family Outcomes During the Head Start Year: FACES 2014-2015 Data Tables and Study Design

## OPRE Report 2017-100 December 2017

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## OVERVIEW

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Head Start is a national program that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social, and other services to enrolled children and families. The program places special emphasis on helping preschoolers develop the reading, language, social-emotional, mathematics, and science skills they need to be successful in school. It also seeks to engage parents in their children's learning and to promote their progress toward their own educational, literacy, and employment goals (Administration for Children and Families 2009). The Head Start program aims to achieve these goals by providing comprehensive child development services to economically disadvantaged children and families through grants to local public and private nonprofit and for-profit agencies.

### Introduction

This report includes key information on the Head Start Family and Child Experiences Survey 2014 (FACES 2014) study design and a set of data tables that presents descriptive statistics on the demographic backgrounds and developmental outcomes of children enrolled in Head Start in fall 2014 and were still enrolled in spring 2015. The tables also detail aspects of their home environment and family life. Data are drawn from the Head Start Family and Child Experiences Survey (FACES 2014).

FACES which was first launched in 1997 as a periodic, longitudinal study of program performance. The study is conducted by Mathematica Policy Research and its partners—Educational Testing Service and Juárez and Associates—under contract to the Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

### Topics

1. Fall 2014 child characteristics and family environments for children still enrolled in spring 2015
2. Child characteristics and family environments in spring 2015 and fall-spring change
3. Child cognitive development in spring 2015 and fall-spring change
4. Child social-emotional development in spring 2015 and fall-spring change
5. Child health and physical development in spring 2015 and fall-spring change

### Purpose

The purpose of this report is two-fold: (1) to provide information about the FACES study, including the background, design, methodology, measures, and analytic methods, and (2) to report detailed descriptive statistics and related standard errors in a series of tables on children and their families. The data provide descriptive information from parent surveys, teacher child reports, and direct child assessments.

## Findings and highlights

The data tables provide descriptive information on Head Start children and their families.

For fall 2014 child characteristics and family environments for children still enrolled in spring 2015, the tables show:

- Demographic characteristics (e.g., age, race/ethnicity, home and classroom language environment, household composition)
- Parent education and employment status
- Household income as a percentage of the federal poverty threshold

For child characteristics and family environments in spring 2015 and fall-spring change, the tables show:

- Parental depressive symptoms (spring)
- Home learning activities, joint book reading frequency, and household routines (spring; fall-spring change)

For child cognitive, social-emotional, and health and physical development in spring 2015 and fall-spring change, the tables show:

- Reliability of the direct assessments of children's language (English receptive vocabulary, English expressive vocabulary, Spanish receptive vocabulary, conceptual expressive vocabulary), literacy (letter-word knowledge, early writing), and math development (spring)
- Children's language of direct assessment (spring; fall-spring change)
- Language, literacy, and math skills of children (spring; fall-spring change)
- Reliability of children's executive function, social skills, problem behaviors, and approaches to learning (spring)
- Children's executive function, social skills, problem behaviors, and approaches to learning (spring; fall-spring change)
- Teacher report of children's disability status and impairment type and IEP/IFSP status (spring; fall-spring change)
- Parent-reported child health status (spring; fall-spring change)
- Children's height, weight, and body mass index (BMI) (spring; fall-spring change)

The tables provide this information for all Head Start children. For some of these characteristics, the tables also provide the information by Head Start exposure and primary home language.

## Methods

The FACES sample provides information at the national level about Head Start programs, centers, classrooms, and the children and families they serve. We selected a sample of Head Start programs from the 2012-2013 Head Start Program Information Report, with two centers per program and two classrooms per center selected for participation. Within each classroom, we randomly selected 12 children for the study. One-hundred seventy-six programs, 346 centers, 667 classrooms, and 2,206 children (in 60 programs) were still study participants in spring 2015. Of these 2,206 children, 1,921 had at least one parent survey completed and either one or both of the following: (1) a fall and spring child assessment or (2) a fall and spring teacher child report.

The statistics found in these tables are estimates of key characteristics of the population of Head Start children in spring 2015 and their parents and families. The data used to report on child and family characteristics and child outcomes are weighted to represent all Head Start children who were enrolled in Head Start in fall 2014 and were still enrolled in spring 2015.

## Glossary

FACES: Head Start Family and Child Experiences Survey

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## INTRODUCTION

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Head Start is a national program that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social, and other services to enrolled children and families. The program places special emphasis on helping preschoolers develop the reading, language, social-emotional, mathematics, and science skills they need to be successful in school. It also seeks to engage parents in their children’s learning and to promote their progress toward their own educational, literacy, and employment goals (Administration for Children and Families 2009). The Head Start program aims to achieve these goals by providing comprehensive child development services to economically disadvantaged children and families through grants to local public and private nonprofit and for-profit agencies.

This set of tables presents data on the demographic backgrounds and developmental outcomes of children who were enrolled in Head Start in fall 2014 and were still enrolled in spring 2015. The tables also detail aspects of their home environment and family life. Data are drawn from the Head Start Family and Child Experiences Survey (FACES 2014), which was first launched in 1997 as a periodic, longitudinal study of program performance. Successive nationally representative samples of Head Start children, their families, classrooms, and programs provide descriptive information on the population served; staff qualifications, credentials, and opinions; Head Start classroom practices and quality measures; and child and family outcomes. FACES includes a battery of child assessments across many developmental domains; surveys with children’s parents, teachers, and program managers; and observations of classroom quality. In 2013, the Office of Planning, Research, and Evaluation in the Department of Health and Human Services Administration for Children and Families (ACF) funded Mathematica Policy Research and its partners—Educational Testing Service and Juárez and Associates—to design and conduct FACES 2014-2018. FACES 2014 consists of a core set of data collection activities to capture key characteristics and indicators related to programs, classrooms, and child outcomes. These are referred to as “Core studies.” Moreover, topical modules or special studies—known as “Plus studies”—allow FACES to respond flexibly to new policy and programmatic issues and questions, and to address topics in the Core with additional depth. We focus here on child and family data collected as part of the Classroom + Child Outcomes Core study.<sup>1</sup>

Following this introduction to the spring 2015 study methodology and sample, the measures used, and the analytic methods used in this report, the first set of tables provides information for all children and by the child’s Head Start exposure (newly entering Head Start versus returning for a second year),<sup>2</sup> on:

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<sup>1</sup> The FACES 2014 design also includes a set of data collection activities for the Classroom Core, conducted in spring 2015 and again in spring 2017. A separate FACES 2014 product describes aspects of Head Start classroom and program environments in spring 2015 (Moiduddin et al. 2017).

<sup>2</sup> Children’s newly entering versus returning status refers to their participation in preschool Head Start and does not include Early Head Start.

- Children’s characteristics, family demographics, and home environment (Section A)

In the next three sets of tables, we provide information for all children and by Head Start exposure and, for a subset of outcomes, by primary home language<sup>3</sup>:

- Child cognitive development (Section B)<sup>4</sup>
- Child social-emotional development (Section C), and
- Child health and physical development (Section D)

Each section includes a set of tables focusing on characteristics in spring 2015, as well as a subset of tables focusing on change during the program year (fall 2014 to spring 2015).<sup>5</sup> As noted in a subsequent section, throughout the tables, we highlight fall-spring change that is statistically significant at the .05 level and lower. Tables focusing on fall-spring change only include cases with valid data on the measure in both the fall and the spring. This primarily affects children who change language of direct assessment between fall and spring. For example, only children with a WJ III Letter-Word score in both fall and spring are included in the fall-spring change tables. Therefore, spring estimates (and sample sizes) in the spring only and fall-spring tables may differ. For interested readers, we provide accompanying standard error tables in Sections AA (child and family characteristics), BB (child cognitive development), CC (child social-emotional development), and DD (child health and physical development).

### Conceptual framework

The conceptual framework for the FACES 2014 Classroom + Child Outcomes Core study (see Figure 1) is a modification of the FACES 2009 design to show an updated list of constructs examined. As with the FACES 2009 model, it illustrates the complex interrelationships that help shape the developmental trajectories of children in Head Start. The child’s place is primary and constitutes the central core of the relationships depicted in the figure; fostering his or her progress toward school readiness, broadly construed, is Head Start’s ultimate goal. The family context forms the first ring of influences surrounding the child. Membership in the Head Start community is reflected in the child’s classroom environment, shaped by teacher credentials and experience, classroom resources and quality, and overall program management. More distal factors, such as community, state, and national policy decisions, also affect the lives of children and families participating in Head Start. These multidimensional contexts guide all aspects of the FACES study, from the selection of measures to the analyses needed to fully address program and policy issues in today’s Head Start program.

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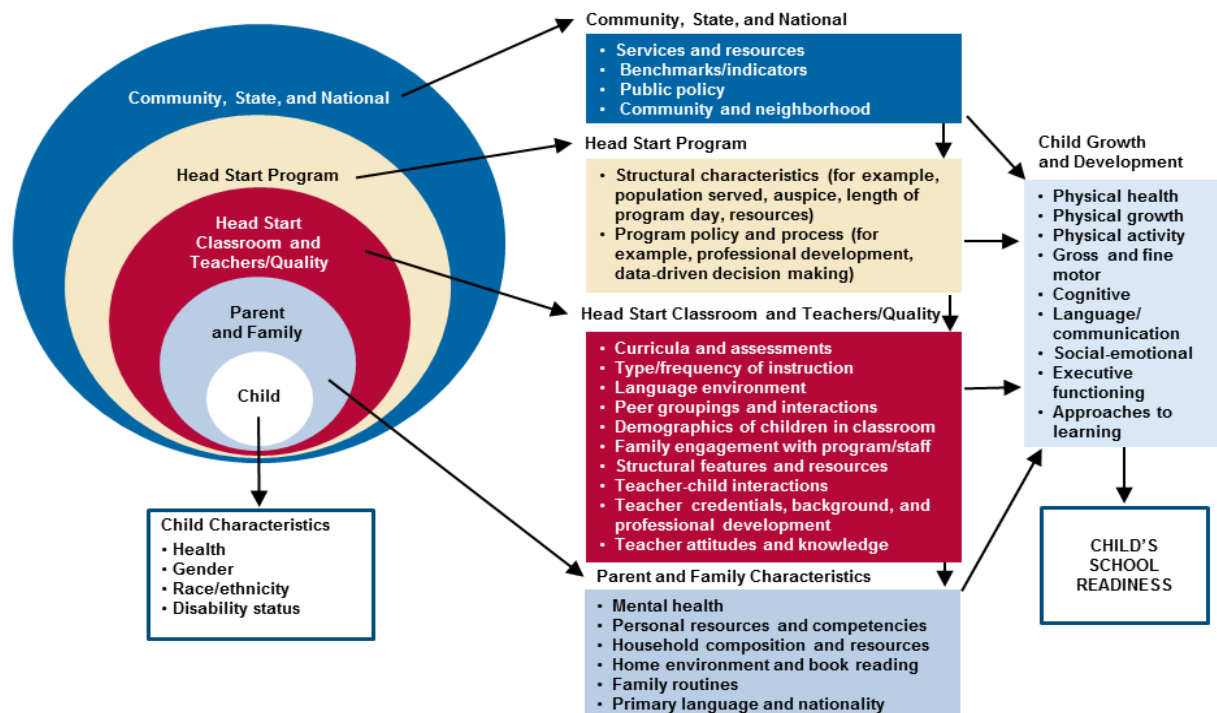
<sup>3</sup> This characteristic is based on the parent’s report of whether a language other than English is spoken in the child’s home and whether the child’s parent/guardian primarily uses this language when speaking with the child. Other FACES reports refer to children with a primary home language other than English as dual language learners or DLLs. This may differ from definitions used in other studies.

<sup>4</sup> For the Spanish-bilingual measures (ROWPVT-4: SBE and EOWPVT-4: SBE), we also report scores by language of direct assessment.

<sup>5</sup> The Section A tables also include a set of tables that draw on data from the fall 2014 Parent Survey to describe the population at the beginning of the program year.

Measurement of child and family outcomes allows fuller understanding of Head Start’s efforts to prepare children and their parents for the school experience. The Head Start experience is designed to promote immediate and short- and long-term goals for children and families. For children, the experience includes preschool education, health screenings and examinations, nutritionally adequate meals, and opportunities to develop social-emotional skills that support school readiness. For parents, the experience involves opportunities to participate in policy and program decisions. The program provides parents with chances to participate in the classroom and strives to encourage their active involvement in the education and development of their children. Head Start seeks to promote adult literacy and further parent education, where needed and appropriate, and to provide opportunities for careers and training in early childhood education. The program also seeks to promote family self-sufficiency through provision of case management, assessment, referral, and crisis intervention services. Head Start acts as an advocate for necessary family-focused social services through interagency coordination and agreements.

Figure 1. Conceptual framework guiding Classroom + Child Outcomes Core



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## METHODS<sup>6</sup>

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The FACES sample provides information at the national level about Head Start programs, centers, classrooms, and the children and families they serve. We selected a sample of Head Start programs from the 2012-2013 Head Start Program Information Report (PIR), with two centers per program and two classrooms per center selected for participation.<sup>7</sup> Within each classroom, we randomly selected 12 children for the study. One-hundred seventy-six programs, 346 centers, 667 classrooms, and 2,206 children (in 60 programs) were still study participants in spring 2015. Of these 2,206 children, 1,921 had at least one parent survey completed and either one or both of the following: (1) a fall and spring child assessment or (2) a fall and spring teacher child report.

In spring 2015, we collected data over a four-month period (March–July). Mathematica data collection teams assessed the children at their Head Start centers and conducted observations of classroom quality. Children’s parents completed surveys by phone or on the web,<sup>8</sup> and teachers were asked to complete a set of ratings for each sampled child in their classroom using either a web-based or a paper instrument.<sup>9</sup> Additionally in spring 2015, teachers completed surveys on paper or the web about their classrooms and themselves, as did center and program directors (see Moiduddin et al. 2017).<sup>10</sup>

The tables focus on describing the children and families in Head Start, presenting data from the direct child assessments, parent surveys, and teacher child ratings.<sup>11</sup> Within 60 programs, a total of 2,226 children were eligible for the spring 2015 follow up<sup>12</sup> and 1,921 (86 percent) had completed instruments as described above. Direct child assessments were completed in the spring for 95 percent of the 2,206 participating children, and 74 percent of their parents

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<sup>6</sup> In this section we provide a description of the contents of the data collection instruments. The information provided is intended to be representative of the data collected. Some of the data that we describe are not included in the data tables.

<sup>7</sup> The PIR provides data on the services, staff, children, and families served by Head Start programs across the country. All grantees and delegates must submit a PIR for Head Start programs.

<sup>8</sup> Forty-eight percent of parents completed the survey on the web, and 52 percent did so via telephone.

<sup>9</sup> Eighty-four percent of teachers completed the Teacher Child Report on the web, and 16 percent of teachers used the hardcopy instrument.

<sup>10</sup> Seventy-five percent of teachers completed the teacher survey on the web, and 25 percent did so using the hardcopy instrument.

<sup>11</sup> A separate FACES 2014 product describes the data collection instruments used to detail aspects of Head Start classroom and program environments in spring 2015 (Moiduddin et al. 2017).

<sup>12</sup> This total (2,226) represents 90 percent of the 2,462 children who were sampled, eligible, and consented for the fall 2014 baseline data collection, and includes 20 children who left the Head Start program from which they were sampled between fall and spring and went to another Head Start program that was not part of the study.

completed spring parent surveys. A teacher child report form was completed in the spring for 95 percent of the participating children.<sup>13</sup>

We use data from the direct child assessments to report on children's cognitive and physical outcomes and executive function at the beginning and end of the Head Start year. Teacher ratings provide information about children's social-emotional development and developmental conditions and needs. Assessor ratings provide another source of information about children's social-emotional skills. We also use parent survey data to describe children's backgrounds and family demographics.

***Direct child assessments.*** The spring battery of direct child assessments, like the fall battery, includes a set of standardized preschool assessments designed to measure children's cognitive skills (language, literacy, and mathematics), executive function (inhibitory control and working memory), and physical development (height and weight) through an untimed, one-on-one assessment of each child. We describe the measures used in the next section.

***Parent surveys.*** FACES collects information from Head Start parents in a variety of areas including characteristics of households (such as income, number of adult household members, languages spoken in the home) and household members (including relationship to study child). We also collect information on parental depressive symptoms, and parents' ratings of their children's health status, among other characteristics. New questions in the spring survey ask parents about their relationships with teachers, sources of social support, and receipt of community services.

***Teacher Child Reports.*** As in the fall, using a Teacher Child Report (TCR) form, lead teachers rate each FACES child in their classroom on a set of items assessing the child's cooperative classroom behavior, problem behaviors, and their approaches to learning. Teachers also provide reports of children's developmental conditions or concerns, and absences during the program year.

***Assessor ratings.*** At the end of the fall and spring one-on-one assessments, the assessor completes a set of rating scales evaluating the child's behavior in the assessment situation using the Leiter-R Examiner Rating Scales (Roid and Miller 1997).

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<sup>13</sup> These are all unweighted marginal response rates, not accounting for prior stages of sampling and participation. The cumulative weighted response rates, which take into account the response rate for prior stages of the sample (such as program, center, and child response rates), as well as fall 2014 consent rates, are by definition lower. The corresponding cumulative response rates associated with completing the child assessments, parent surveys, and teacher ratings are 82 percent, 65 percent, and 83 percent, respectively.

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## OVERVIEW OF MEASURES

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In this section we provide an overview of the measures used to address aspects of parenting and the home environment and to describe child cognitive, social-emotional, and physical development. We provide detail for any constructs that are based on multiple items, focusing on only those measures included in the accompanying table set. Where applicable, we also include information on the normative samples for certain measures, mode of administration, and their limitations. Unless otherwise noted, the measures are included in both the fall 2014 and spring 2015 waves of FACES, although in some instances items are only asked of new respondents in the spring.

### Child and family demographics, parenting, and the home environment

We created composite measures to describe child and family characteristics and to define subgroups. *Head Start exposure* identifies the percentage of children who are newly entering Head Start versus those returning for a second year. It is based on information gathered from Head Start programs (child date of birth, whether child was attending first year of Head Start, and date child first enrolled in any Head Start program).<sup>14</sup> *Child race/ethnicity* is defined as: White, non-Hispanic; African American, non-Hispanic; Hispanic/Latino; American Indian and Alaska Native, non-Hispanic; Asian or Pacific Islander, non-Hispanic; Multi-racial or bi-racial, non-Hispanic; and Other, non-Hispanic based on parent survey items asking separately about race and ethnicity.

Several composite measures provide information related to children's home language use, including primary home language and whether that language is used for classroom instruction. *Primary home language* is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child. Categories include: English, Spanish, Other (non-Spanish) language. An indicator for *whether the child's primary home language is used for classroom instruction* is based on parent report of the child's primary home language and teacher report of the language(s) used for classroom instruction in the teacher survey. For the purposes of conducting the direct assessment, we use data from the parent consent form on the language the child uses most often at home. We describe how that information is used to drive the direct assessment in a subsequent section.

*Household composition* is based on a series of items about those living in the household, capturing each household member's relationship to the child. Categories include: lives with mother and father; lives with mother only; lives with father only; and lives with neither mother nor father. These categories focus on both biological and adoptive parents. The groups for lives with mother only and lives with father only mean that he or she is the only biological/adoptive parent in the household, not necessarily he or she is the only adult in the household.

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<sup>14</sup> Child date of birth and whether the child was attending for their first year of Head Start, collected ahead of the spring 2015 data collection, were used to construct this variable for the majority of children. Based on follow-up inquiries, the date the child first enrolled in any Head Start program was also used for a subset of children.

*Parent marital status* is presented for children who live with their biological/adoptive mother and biological/adoptive father. Marital status categories include: married, registered domestic partnership or civil union, unmarried, and other/not reported.<sup>15</sup>

Household income as a *percentage of the federal poverty threshold* is based on 2013 thresholds set by the United States Census Bureau. It is based on income and household size. For example, the federal poverty threshold for a family of four in 2013 was \$23,834.

*Parental depressive symptoms* is measured with the short form of the Center for Epidemiological Studies Depression (CES-D) Scale (Ross et al. 1983). Parents report how often they felt or behaved a particular way in the past week on 12 items. Scores for individual items are summed to range from 0 to 36, and total scores are coded as not depressed (0 to 4), mildly depressed (5 to 9), moderately depressed (10 to 14), and severely depressed (15 and above). The CES-D is a screening tool and not a diagnostic tool, but scores have been correlated with clinical diagnosis.

### Child cognitive development

To assess children's skills and knowledge, FACES directly administers norm- and criterion-referenced measures of language, literacy, and math development to the children. The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4; Dunn and Dunn 2006) measures children's English receptive vocabulary knowledge relative to English-speaking children of the same age in the United States.

The Expressive One-Word Picture Vocabulary Test-4th Edition, both the English and the conceptually scored Spanish-Bilingual Editions (EOWPVT-4 and EOWPVT-4: SBE; Martin and Brownell 2010, 2012a), measure children's expressive vocabulary.<sup>16,17</sup> The EOWPVT-4: SBE allows for conceptual scoring (that is, it provides prompts for both English and Spanish and accepts responses in either language, including responses in various Spanish dialects) and can be administered in English, Spanish, or as a bilingual measure. FACES uses conceptual scoring with the EOWPVT-4: SBE. The EOWPVT-4 norms provide a measure of children's expressive vocabulary relative to English-speaking children of the same age nationally, while the EOWPVT-4: SBE norms reflect these skills relative to Spanish-speaking children of the same age nationally.

The Receptive One-Word Picture Vocabulary Test-4: Spanish-Bilingual Edition (ROWPVT-4: SBE; Martin and Brownell 2012b) is a conceptually scored measure of children's

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<sup>15</sup> Divorced, separated, and widowed parents are included in the "other/not reported" category.

<sup>16</sup> FACES 2009 used the third edition of the EOWPVT and EOWPVT-SBE. The EOWPVT-4 and EOWPVT-4: SBE no longer include the same items in the same order, reflecting cultural and linguistic differences in the development of word-usage patterns. In addition, unlike its predecessor, the norms for the EOWPVT-4: SBE extend downward to age 2. As a result, scores on these measures are not comparable to those obtained in FACES 2009.

<sup>17</sup> The EOWPVT-4 is administered to children who most often use an English and Other (non-Spanish) language at home and the EOWPVT-4: SBE is administered to children who most often use Spanish at home. For the purposes of the direct assessment, the language the child uses most often at home is based on parent-reported information on the consent form.

receptive vocabulary that can be administered in English, Spanish, or as a bilingual measure. FACES administers the measure only in Spanish to provide a measure of children's Spanish receptive vocabulary. The ROWPVT-4: SBE was normed on a bilingual sample of individuals in the U.S. who speak Spanish and English, with individuals given the opportunity to receive prompts in English and Spanish, and provides information on children's vocabulary relative to Spanish-speaking children of the same age nationally.<sup>18</sup>

Selected scales from the Woodcock-Johnson Tests of Achievement, Third Edition (WJ III; Woodcock et al. 2001) provide a picture of letter knowledge, early math, and early writing relative to English-speaking children of the same age in the U.S. Spanish versions of these measures are from the Bateria III Woodcock-Muñoz Tests of Achievement (WM III; Woodcock et al. 2004). The calibration sample for the WM was drawn from both inside and outside the U.S. (including Mexico, Costa Rica, Panama, Argentina, Colombia, Puerto Rico, and Spain). Calibration data were then equated to the WJ norms.<sup>19</sup> The Letter-Word Identification subtest measures children's alphabet knowledge, print concepts/conventions, and sight word recognition. Applied Problems captures math skills in the areas of number concepts and quantities, number relationships and operations, counting, and reasoning/problem solving. Finally, Spelling measures children's early writing and spelling from memory.

A supplemental set of math items from the Early Childhood Longitudinal Study-Birth and Kindergarten cohorts (ECLS-B and ECLS-K:98) is used to assess a broader set of early math skills than is captured by the WJ/WM III Applied Problems subtest.

A supplemental set of letter-sounds items from the ECLS-B is used to tap the skills of children who have progressed beyond letter knowledge on the WJ Letter-Word Identification subtest but have not yet acquired sight words. This measure is only available in English.

For the purposes of conducting the direct child assessment, we use data from the parent consent form on the language the child uses most often at home and the child's performance on the language screener to determine his/her *language path*. The direct assessment includes four language paths: assessed in English, primarily assessed in English, primarily assessed in Spanish, and assessed in English, shortened assessment battery.

The direct child assessment begins with two subtests from the Preschool Language Assessment Survey 2000 (*preLAS* 2000; Duncan and DeAvila 1998), Simon Says and Art Show. We use the *preLAS* as a warmup for children who most often use English at home. For children

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<sup>18</sup> The FACES 2014 standard scores on the ROWPVT-4: SBE provide an estimate of children's Spanish receptive vocabulary but are likely an underestimate of their total receptive vocabulary knowledge, as children often have some word knowledge distributed across languages. Unlike in the norming standardization, FACES children were not provided an opportunity to receive prompts in both Spanish and English, if needed.

<sup>19</sup> While prior cohorts of FACES used the WJ III and WM III norms, we use the norms associated with the WJ III and WM III Normative Update (NU). The WJ/WM III norms were developed using Census population projections for 2000. The 2000 Census showed that these projections were off in several areas (for example, percent of the population that was Hispanic was higher in Census 2000 than suggested by the population projections). The NU norms have adjusted for this by changing the weights assigned to different segments of the population that are used to prepare standard scores.



who most often use a language other than English at home, we use it as a language screener to determine whether they should be assessed in English, primarily assessed in English, primarily assessed in Spanish, or administered an abbreviated assessment battery that includes English vocabulary and height and weight measurements.

Following the *preLAS*, all children are administered the PPVT-4 to measure English receptive vocabulary. Children who most often use English or an Other (non-Spanish) language at home take and the EOWPVT-4 to measure English expressive vocabulary. Children who most often use Spanish at home take the EOWPVT-4: SBE to measure conceptual expressive vocabulary. In addition, children who most often use Spanish at home take the ROWPVT-4: SBE to measure Spanish receptive vocabulary, regardless of their performance on the *preLAS*. Thus, children who most often use Spanish at home receive the receptive vocabulary component of the battery in English (PPVT-4) and Spanish (ROWPVT-4: SBE).

Following administration of these vocabulary measures, children who most often use Spanish at home and who make more than 12 errors on the *preLAS* are routed to the Spanish-language cognitive assessment (primarily assessed in Spanish). Similarly, children who make more than 12 errors on the *preLAS* and most often use a language other than English or Spanish at home are routed out of the cognitive assessment following administration of the English vocabulary measures and are weighed and measured for height (assessed in English, shortened assessment battery). Children who make 12 or fewer errors on the *preLAS* and who most often use Spanish at home receive the remainder of the cognitive battery in English (primarily assessed in English). Children who make 12 or fewer errors on the *preLAS* and who most often use a language other than English or Spanish at home receive the cognitive assessment battery in English (assessed in English). Children who most often use English at home are administered the cognitive assessment battery in English, regardless of their scores on the *preLAS* (assessed in English).

Table 1 presents the language paths and measures for the direct child assessment based on the language the child most often uses at home and performance on the language screener. Table 2 presents the number of children routed along each of the language paths in fall 2014 and spring 2015.

Table 1. FACES direct child assessment language paths and measures

Language child uses most often at home <sup>a</sup>				
English	Spanish		Other (non-Spanish)	
Warmup ( <i>preLAS</i> )	Language screener ( <i>preLAS</i> )		Language screener ( <i>preLAS</i> )	
Assessed in English	Primarily assessed in English <sup>b</sup>	Primarily assessed in Spanish <sup>b</sup>	Assessed in English <sup>b</sup>	Assessed in English, shortened assessment battery <sup>b</sup>
PPVT-4	PPVT-4	PPVT-4	PPVT-4	PPVT-4
EOWPVT-4	EOWPVT-4: SBE (conceptually scored)	EOWPVT-4: SBE (conceptually scored)	EOWPVT-4	EOWPVT-4
--	ROWPVT-4: SBE (administered in Spanish)	ROWPVT-4: SBE (administered in Spanish)	--	--
WJ III (Spelling, Letter-Word Identification, Applied Problems)	WJ III (Spelling, Letter-Word Identification, Applied Problems)	WM III (Spelling, Letter-Word Identification, Applied Problems)	WJ III (Spelling, Letter-Word Identification, Applied Problems)	--
ECLS-B Letter-Sounds <sup>c</sup>	ECLS-B Letter-Sounds <sup>c</sup>	--	ECLS-B Letter-Sounds <sup>c</sup>	--
ECLS Math	ECLS Math	ECLS Math (Spanish translation available)	ECLS Math	--
Executive function: Pencil Tapping <sup>d</sup>	Executive function: Pencil Tapping <sup>d</sup>	Executive function: Pencil Tapping <sup>d</sup> (Spanish translation available)	Executive function: Pencil Tapping <sup>d</sup>	--
Height and weight	Height and weight	Height and weight	Height and weight	Height and weight

<sup>a</sup>We use data from the parent consent form to identify the language the child uses most often at home.

<sup>b</sup>Language of direct assessment is based on the language the child uses most often at home and the child's performance on the language screener. Children who use a language other than English most often at home pass the language screener if they make twelve or fewer errors.

<sup>c</sup>This task is administered only to children who meet a certain threshold on the WJ III Letter-Word Identification subtest. Therefore, it is only available for children assessed in English or primarily assessed in English.

<sup>d</sup>This task is administered only to children age 4 and older at the time of the direct assessment.

Table 2. Number of children assessed using each FACES language path: Fall 2014 and Spring 2015

Wave	Language child uses most often at home <sup>a</sup>				
	English	Spanish		Other (non-Spanish)	Assessed in English, shortened assessment battery <sup>b</sup>
	Assessed in English	Primarily assessed in English <sup>b</sup>	Primarily assessed in Spanish <sup>b</sup>	Assessed in English <sup>b</sup>	
Fall 2014	1806	241	248	24	14
Spring 2015	1593	338	134	26	2

<sup>a</sup>We use data from the parent consent form to identify the language the child uses most often at home.

<sup>b</sup>Language of direct assessment is based on the language the child uses most often at home and the child's performance on the screener. Children who use a language other than English most often at home pass the language screener if they make twelve or fewer errors.

### Child social-emotional development

FACES uses measures from a variety of sources—teacher, assessor, and direct assessment—to provide multiple perspectives on children's positive and challenging behaviors that may affect their ability to learn and interact with others of the same age and adults.

Teachers report on children's cooperative classroom behavior or social skills, as well as their problem behaviors in the classroom using items taken from the Behavior Problems Index (Peterson and Zill 1986), the Personal Maturity Scale (Entwisle et al. 1997), and the Social Skills Rating Scale (Gresham and Elliott 1990). Teachers also rate children's approaches to learning, using the ECLS–K Approaches to Learning Scale (U.S. Department of Education 2002).

Assessors use the Leiter International Performance Scale-Revised Examiner Ratings (Leiter-R) to evaluate the child's behavior in the assessment situation, including approaches to learning and any problem behaviors. FACES uses the cognitive/social scale, which includes 27 items and 4 subscales: (1) attention, (2) organization/impulse control, (3) activity level, and (4) sociability.

Finally, the pencil tapping task (Blair 2002; Diamond and Taylor 1996; Smith-Donald et al. 2007) is a direct assessment of children's executive function that measures children's inhibitory control, working memory, and attention. Reported scores reflect the percentage of times the child taps correctly and can take on any value from 0 to 100. Higher scores indicate better skills on the task. The task is only administered to children age 4 years and older at the time of the direct assessment.

## Child health and physical development

FACES measures children's health and physical development in several ways. Teachers report on aspects of children's disability status and developmental conditions or concerns. For those children with a teacher-reported disability, teachers report on the type of impairment(s) and whether the child has an Individualized Education Program (IEP) or Individual Family Service Plan (IFSP). Parents provide ratings of their child's overall health status. During the one-on-one assessment, we also measure each child's height and weight to support analyses of obesity or underweight status.

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## OVERVIEW OF ANALYTIC METHODS

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In this section we provide an overview of the analytic methods used to detail aspects of parenting and the home environment and child cognitive, social-emotional, and physical development.

### Population estimates

The statistics found in these tables are estimates of key characteristics of the population of Head Start children in spring 2015 and their parents and families. The data used to report on child and family characteristics and child outcomes are weighted to represent all Head Start children who were enrolled in Head Start in fall 2014 and were still enrolled in spring 2015.<sup>20</sup> Weights are used to compensate for the differential probabilities of selection at the sampling stage (for example, we selected programs and centers with probability proportional to size; and we selected a fixed number of classrooms per center out of a variable number of classrooms) and to adjust for changes in children's eligibility status and the effects of nonresponse. This report applies a sampling weight (PRA12WT) to include children who have a completed parent survey in the fall or spring in combination with either child assessment or teacher child report in both the fall and spring. Estimates and standard errors included in the data tables are based on weighted data.

These tables also include unweighted sample sizes which, along with standard errors, provide a sense of stability of the estimates of key characteristics of the Head Start population. We present estimates only for those cases who completed a measure or answered a question.<sup>21</sup> For each of the table of population estimates, we also provide accompanying standard error tables based on the weighted estimates. In conjunction with the standard errors, users may compare the means and percentages presented in the tables in order to assess whether differences between estimates are statistically significant. Student's *t* test can be used to test for statistical significance at the .05 level, where *t* equals the difference between the estimates divided by the square root of the sum of the estimates' squared standard errors. Standard errors also provide information on the stability of the estimates, where a larger standard error signifies a wider confidence interval around the estimate. With a 95 percent confidence interval, we are 95 percent certain that the true population value lies within the confidence interval surrounding the estimate based on our sample. For a given measure and level of confidence, the larger the sample size, the narrower the confidence interval. In the context of FACES, the confidence interval reflects the sampling variance for the estimates presented in this report based on the sample of children that participate in FACES, and the range of possible true values for the entire population of Head Start participants.

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<sup>20</sup> Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and were still enrolled in spring 2015. This includes children who are new to the program and those who are returning for a second year. Previous rounds of FACES only included newly enrolled children.

<sup>21</sup> The number of cases may vary depending on whether a question or measure was not administered by design or if individuals chose not to respond to a particular survey item. For example, depending on the child's language of direct assessment, a child may be missing scores on certain measures because the child was not administered these measures, as in the case where a child going down the Spanish path will not have scores on the WJ III measures. Or, in the parent survey, a parent may not receive a question based on a response to an earlier "gateway" question.

To examine whether estimates in the fall differed significantly from those in the spring, we conducted t-tests,<sup>22</sup> reporting those that are statistically significant at the .05 level and lower. Some differences, although statistically significant, are very small and may not always be practically meaningful. We did not make adjustments for multiple comparisons. We examined fall-spring change across all children and separately for child's Head Start exposure (newly entering Head Start versus returning for a second year, and newly entering 3-year-olds versus newly entering 4-year-olds) and by primary language spoken to the child at home (primary home language is English versus primary home language other than English). Specifically, significance tests examined whether mean assessment scores differed between fall and spring or whether the percentage of children with a specific characteristic differed between the two time points.

### Constructed scores

***Child cognitive development.*** Child assessment scores created in FACES include raw, standard, and Item Response Theory (IRT)-based scores, or W scores, depending on the measure. Raw scores refer to counts or averages of the individual items that a child completed. They are indicators of absolute rather than relative performance. Standard scores provide information relative to other children. W scores also provide information on children's absolute rather than relative skills. IRT-based scores allow for measurement of change or growth in performance on the same scale over time. While raw and W scores for children's cognitive outcomes are created in FACES, we do not report on these types of scores in this set of tables and instead focus on IRT-based and standard scores only.<sup>23</sup> IRT-based and standard scores can be used to address different types of questions about children's skills and development.

IRT-based scores provide information on children's absolute performance at a specific point in time. Changes in these scores across waves indicate that the child is progressing developmentally and his/her skills are increasing in absolute terms. IRT scale scores from the ECLS-B mathematics<sup>24</sup> and letter-sounds assessments are created and reported in the tables. These scores provide an estimate of the child's performance as if he/she had taken all items in an assessment (as the child may not receive all items based on basal or ceiling rules, for example).

In contrast, standard scores allow for comparisons of an individual child's performance relative to children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15. Scores above or below the mean indicate that compared to children of the same age nationally, the child's skills are more or less advanced. An increase in a child's standard score toward the mean of 100 indicates that progress is being made relative to others of the same age or that the gap with others of the same age is closing. It is important to take note of the norming sample used for each measure when considering how children compare. Standard scores

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<sup>22</sup> Given the weighted nature of the data, we conducted these analyses using SUDAAN PROC DESCRIPT contrasting by wave (fall versus spring).

<sup>23</sup> We create raw scores for the PPVT-4, ROWPVT-4: SBE, EOWPVT-4, EOWPVT-4: SBE, and WJ/WM III measures. We create W scores for the PPVT-4 and WJ/WM III measures. These scores are found on the FACES 2014 public use data file.

<sup>24</sup> A subset of the items in the mathematics assessment are also drawn from the ECLS-K.

are created and reported in the tables for the PPVT-4, ROWPVT-4: SBE, EOWPVT-4, EOWPVT-4: SBE, and WJ/WM III measures.<sup>25, 26</sup>

Given the diversity in Head Start children's skills and development—some children have average or above average skills, whereas others have below average skills—we were particularly interested in knowing what percentage of children have below average skills indicating potential needs. To look more closely at this, we categorized children's skills across the cognitive measures with standard scores in terms of standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70). Generally, standard scores that are two or more standard deviations below norms suggest the need for referral or additional evaluation.<sup>27</sup>

***Child social-emotional development.*** Raw scores for children's teacher reported cooperative behaviors or social skills, approaches to learning, and problem behaviors in the classroom are derived from the measures described above. Composite scores are calculated as the sum or mean of items and reflect the extent to which given statements are reflective of a child's behavior.

- *Social Skills* is a summary index based on 12 items with 24 possible points related to children's cooperative behavior and social skills. Higher scores indicate more frequent cooperative behavior.
- *Approaches to Learning* is based on the mean of six items that comprise the Approaches to Learning Scale from the ECLS–K:98. Higher scores indicate more frequent positive approaches to learning behaviors.
- *Problem Behaviors* is a summary index of 14 items that contains three subscales—Aggressive Behavior, Withdrawn Behavior, and Hyperactive Behavior. Higher scores represent more frequent negative behavior.<sup>28</sup>

Assessor-reported scores of children's behavior during the direct assessment include raw and standard scores derived from the Leiter-R.

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<sup>25</sup> As in prior FACES reporting, we exclude from the tables all cases who are unable to achieve a basal on the PPVT-4.

<sup>26</sup> In FACES 2014, the possible range of scores is 45-155 for the ROWPVT-4: SBE, EOWPVT-4, and EOWPVT-4: SBE. The publisher manuals provide information for translating raw scores to standard scores ranging from 55 to 145 based on a traditional approach to report scores 3 standard deviations above or below the mean. This represents 99.7 percent of the distribution. For the remaining 0.3 percent of the distribution, the publisher flags the lowest raw scores as a standard score of "<55" and the highest raw scores as a standard score of ">145." To include all cases with raw scores, we use a "45" for the low end and "155" at the high end to indicate these cases are outside of the range.

<sup>27</sup> All children receive the PPVT-4 to measure English receptive vocabulary regardless of the language they most often use at home and their performance on the language screener. All children who use a language other than English or Spanish most often at home receive the EOWPVT-4 to measure English expressive vocabulary regardless of their performance on the language screener. Therefore, some of these children may have scored low on these measures because of low levels of English vocabulary and not because of a developmental language delay.

<sup>28</sup> The number of items in the three subscales sum to 13. One additional item that is not included in the subscales is included in the problem behaviors total score. Therefore, there are 14 total items in the problem behaviors total score.

- *Attention, organization/impulse control, activity level, and sociability*, are raw subscale scores and *cognitive/social total* is a raw total score of the subscales. Higher scores reflect better behaviors on these measures.
- *Cognitive/social* standard score has a mean of 100 and a standard deviation of 15, and indicates performance relative to children of the same age nationally.

***Child health and physical development.*** Height and weight measurement is completed on each child using procedures from the ECLS. Body Mass Index (BMI) is calculated as the ratio of an individual's weight to height (weight in kilograms divided by squared height in meters) and can be used as an indicator of overweight and obese status. BMI calculation is specific to gender and age. According to the Centers for Disease Control and Prevention (CDC), a child is considered to be overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for age and gender, and obese if his/her BMI is at or above the 95th percentile for age and gender. Children with a BMI score less than the 5th percentile for age and gender are considered underweight, and those between the 5th and 85th percentile are considered normal weight.



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SECTION A

CHILD CHARACTERISTICS AND FAMILY ENVIRONMENTS:  
FALL 2014, SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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FALL 2014 CHILD CHARACTERISTICS AND FAMILY ENVIRONMENTS FOR  
CHILDREN STILL ENROLLED IN SPRING 2015

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Table A.1. Demographic characteristics of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Demographic characteristics	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Head Start exposure</b>	1921		772		443		1215		706	
Newly entering children		64.9		100.0		100.0		100.0		0.0
Returning children		35.1		0.0		0.0		0.0		100.0
<b>Age as of September 1, 2014</b>	1900		772		443		1215		685	
3 years old or younger		43.8		100.0		0.0		62.6		8.0
4 years old or older		56.2		0.0		100.0		37.4		92.0
<b>Race/ethnicity</b>	1918		771		443		1214		704	
White, non-Hispanic		27.2		25.6		38.9		30.4		21.2
African American, non-Hispanic		22.6		23.7		17.7		21.5		24.6
Hispanic/Latino		41.6		43.1		34.9		40.1		44.5
American Indian or Alaska Native, non-Hispanic		1.9		1.8		1.2		1.6		2.6
Asian or Pacific Islander, non-Hispanic		0.8		1.1		0.4		0.8		0.6
Multi-racial/bi-racial, non-Hispanic		5.1		4.3		5.7		4.8		5.7
Other, non-Hispanic		0.8		0.6		1.2		0.9		0.6
<b>Gender</b>	1921		772		443		1215		706	
Female		49.6		49.0		49.7		49.2		50.2
Male		50.4		51.0		50.3		50.8		49.8
<b>Participated in Early Head Start</b>	1703		684		405		1089		614	
Yes		33.3		32.2		18.5		27.0		45.5
No		66.7		67.8		81.5		73.1		54.5

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.



Table A.2. Home and classroom language environment of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Home and classroom language environment	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Language spoken in the home</b>	1920		772		443		1215		705	
English only		60.2		59.8		64.2		61.5		57.9
Spanish		33.8		34.7		30.5		33.1		35.1
Other (non-Spanish) language		6.0		5.5		5.2		5.4		7.0
<b>Primary home language<sup>b</sup></b>	1920		772		443		1215		705	
English		75.1		74.3		80.7		76.7		72.2
Spanish		22.0		23.1		16.7		20.7		24.3
Other (non-Spanish) language		2.9		2.6		2.5		2.6		3.5
<b>Child's primary home language is used for classroom instruction<sup>c</sup></b>	1802		727		420		1147		655	
Yes		91.8		90.0		94.1		91.5		92.5
No		8.2		10.0		5.9		8.5		7.5

Source: Fall 2014 FACES Parent Survey, Spring 2015 Teacher Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>c</sup>This characteristic is based on the teacher's report of the language(s) used for instruction in the classroom, as well as the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table A.3. Household composition of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Household composition	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Household members</b>	1727		692		407		1099		628	
Biological/adoptive mother and biological/adoptive father		48.5		50.8		49.0		50.1		45.3
Married		31.5		31.5		34.4		32.6		29.3
Registered domestic partnership or civil union		2.4		2.6		1.7		2.2		2.7
Unmarried		13.8		15.2		12.7		14.3		12.8
Marital status not reported		0.8		1.5		0.2		1.0		0.4
Biological/adoptive mother only		44.3		42.2		43.6		42.7		47.4
Biological/adoptive father only		2.8		3.0		2.8		3.0		2.6
Neither biological/adoptive mother nor biological/adoptive father		4.4		4.0		4.5		4.2		4.7
<b>Household composition</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>
<b>Number of people in household</b>	1727	4.4	692	4.4	407	4.3	1099	4.3	628	4.4

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

This table focuses on biological/adoptive parents and does not include other adults, such as parents' romantic partners, step-parents, foster parents, or grandparents. Thus, for example, the "Biological/adoptive mother only" category does not mean that the biological/adoptive mother is the only adult in the household, but that she is the only biological/adoptive parent in the household.

<sup>a</sup>Age as of September 1, 2014.

Table A.4. Parent education for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Parent education	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Highest level of education completed by mothers in household</b>	1591		642		371		1013		578	
Less than high school diploma		26.0		24.9		27.5		25.9		26.2
High school diploma or GED		33.4		33.0		31.4		32.4		35.3
Some college/vocational/technical		32.5		32.7		33.6		33.0		31.5
Bachelor's degree or higher		8.1		9.5		7.5		8.8		7.0
<b>Highest level of education completed by fathers in household</b>	829		342		201		543		286	
Less than high school diploma		37.6		39.7		32.4		37.0		38.9
High school diploma or GED		34.8		30.5		42.2		34.8		34.7
Some college/vocational/technical		20.7		23.0		17.3		20.9		20.2
Bachelor's degree or higher		6.9		6.8		8.2		7.3		6.1
<b>Highest level of education completed by any parent in household</b>	1645		663		384		1047		598	
Less than high school diploma		22.0		22.7		21.2		22.1		21.9
High school diploma or GED		33.9		32.5		34.0		33.0		35.6
Some college/vocational/technical		34.2		34.5		34.8		34.6		33.4
Bachelor's degree or higher		9.8		10.4		10.0		10.2		9.1

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents include both biological and adoptive parents. Households that do not include a mother and/or father are not included in the relevant percentage calculations for highest level of education.

Households with a mother include those with a mother only and those with both a mother and father. Households with a father include those with a father only and those with both a mother and father. Any parent in the household includes children with one or two parents in the household (that is, mother only, father only, and mother and father) and the highest education level among them when there are two parents in the household. If there is only one parent (mother only or father only), it reflects that parent.

<sup>a</sup>Age as of September 1, 2014.

Table A.5. Parent employment status for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Parent employment status	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Employment status of mothers in household</b>	1591		644		371		1015		576	
Working full-time		28.2		28.6		27.1		28.1		28.4
Working part-time		23.6		23.4		23.4		23.4		23.9
Looking for work		14.5		15.8		14.6		15.4		12.8
Not in labor force		33.8		32.2		34.9		33.2		35.0
<b>Employment status of fathers in household</b>	825		338		202		540		285	
Working full-time		62.2		63.7		56.2		60.9		65.2
Working part-time		17.6		17.0		19.1		17.8		17.3
Looking for work		8.3		10.0		8.5		9.4		5.8
Not in labor force		11.9		9.3		16.3		11.9		11.7
<b>Employment status of the most employed of any parent in household</b>	1640		660		384		1044		596	
Working full-time		53.1		55.0		48.8		52.7		54.0
Working part-time		22.2		21.2		22.8		21.8		22.9
Looking for work		11.3		11.7		12.2		11.9		10.2
Not in labor force		13.4		12.1		16.2		13.6		12.9

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents include both biological and adoptive parents. Households that do not include a mother and/or father are not included in the relevant percentage calculations for employment status.

Households with a mother include those with a mother only and those with both a mother and father. Households with a father include those with a father only and those with both a mother and father. Any parent in the household includes children with one or two parents in the household (that is, mother only, father only, and mother and father) and the highest employment level among them when there are two parents in the household. If there is only one parent (mother only or father only), it reflects that parent.

<sup>a</sup>Age as of September 1, 2014.

Table A.6. Household income as a percentage of the federal poverty threshold for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Household income	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Percentage of the federal poverty threshold</b>	1727		692		407		1099		628	
Below 50 percent		31.1		32.6		29.8		31.5		30.2
50 to 100 percent		36.2		37.5		33.9		36.1		36.5
101 to 130 percent		13.1		13.1		11.1		12.4		14.5
131 to 185 percent		9.5		7.6		13.0		9.6		9.3
186 to 200 percent		0.8		1.3		0.8		1.1		0.2
201 percent or above		9.2		7.9		11.3		9.2		9.3

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

This table summarizes household income, and therefore should not be used to estimate eligibility for Head Start. Head Start qualifying criteria are based on family (not household) income, and there are other (non-income) ways to qualify for the program.

The federal poverty threshold is based on 2013 thresholds set by the United States Census Bureau. For example, the federal poverty threshold for a family of four in 2013 was \$23,834.

<sup>a</sup>Age as of September 1, 2014.

CHILD CHARACTERISTICS AND FAMILY ENVIRONMENTS:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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Table A.7. Parental depressive symptoms, overall and by Head Start exposure: Spring 2015

Parental depressive symptoms (categorical)	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Level of depressive symptoms<sup>b</sup></b>	1600		646		374		1020		580	
Not depressed		62.1		62.3		62.2		62.2		61.7
Mildly depressed		20.4		19.3		21.2		20.0		21.1
Moderately depressed		10.7		11.4		9.3		10.6		11.0
Severely depressed		6.8		7.1		7.3		7.2		6.1
Parental depressive symptoms (continuous)	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean
<b>Level of depressive symptoms<sup>b</sup></b>	1600	4.8	646	4.9	374	4.9	1020	4.9	580	4.7

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

In spring 2015, 87 percent of respondents were biological/adoptive mothers, 7 percent were biological/adoptive fathers, and the remainder were other household members.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Level of depressive symptoms is the total score on the Center for Epidemiological Studies Depression Scale (CES-D) short form (12 items on a 4-point scale for frequency in the past week). Total scores range from 0 to 36. Scores ranging from 0 to 4 are coded as not depressed; from 5 to 9 as mildly depressed; from 10 to 14 as moderately depressed; and 15 and above as severely depressed. The CES-D is a screening tool and not a diagnostic tool, but scores have been correlated with clinical diagnosis.



Table A.8. Frequency of reading to child, overall and by Head Start exposure: Spring 2015

Frequency of reading to child	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Number of times family member read to child in past week</b>	1626		654		379		1033		593	
Not at all		0.6		0.5		0.7		0.6		0.7
Once or twice		21.1		24.6		16.0		21.3		20.6
Three or more times, but not everyday		43.5		39.7		45.0		41.7		46.9
Everyday		34.8		35.2		38.3		36.4		31.8

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

Table A.8a. Change in frequency of reading to child: Fall 2014-Spring 2015

Frequency of reading to child	n	Fall 2014	Spring 2015	Fall-Spring Change
		Percentage	Percentage	Percentage
<b>Number of times family member read to child in past week</b>	1432			
Not at all		0.8	0.6	-0.2
Once or twice		19.0	20.2	1.2
Three or more times, but not everyday		40.7	43.9	3.2
Everyday		39.5	35.3	-4.2*

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

Table A.9. Family members' activities with child in past week, overall and by Head Start exposure: Spring 2015

Activities with child	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
Told child a story	1628	92.3	655	93.4	378	93.8	1033	93.5	595	90.2
Taught child letters, words, or numbers	1629	97.5	655	97.9	379	97.3	1034	97.7	595	97.2
Taught child songs or music	1629	88.6	655	89.5	379	89.7	1034	89.6	595	86.9
Worked with child on arts and crafts	1627	74.2	654	72.0	378	76.3	1032	73.6	595	75.1
Played with toys or games indoors	1628	98.5	654	99.5	379	97.5	1033	98.7	595	98.1
Played a game, sport, or exercised together	1629	92.6	655	93.2	379	89.4	1034	91.8	595	94.2
Took child along on errands	1629	96.1	655	96.6	379	96.1	1034	96.4	595	95.7
Involved child in household chores	1629	92.3	655	89.1	379	94.0	1034	91.0	595	94.7
Talked about what happened in Head Start	1628	95.2	655	94.7	379	97.0	1034	95.6	594	94.6
Talked about TV programs or videos	1629	83.0	655	81.1	379	83.6	1034	82.1	595	84.8
Played counting games	1628	90.5	655	91.5	379	92.0	1034	91.7	594	88.4
Played a board game or a card game	1628	53.1	654	52.9	379	53.7	1033	53.2	595	52.8
Played with blocks	1627	59.4	655	62.4	379	59.4	1034	61.2	593	56.0
Counted different things	1625	93.4	652	93.0	378	95.2	1030	93.8	595	92.5
<b>Activities with child</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>	<b>n</b>	<b>Mean</b>
<b>Number of activities</b>	1629	12.1	655	12.1	379	12.1	1034	12.1	595	12.0

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

Table A.9a. Change in family members' activities with child in past week: Fall 2014-Spring 2015

Activities with child	n	Fall 2014	Spring 2015	Fall-Spring Change
		Percentage	Percentage	Percentage
Told child a story	1435	90.2	93.3	3.1*
Taught child letters, words, or numbers	1435	96.2	97.9	1.7*
Taught child songs or music	1435	86.6	88.8	2.2*
Worked with child on arts and crafts	1433	70.6	73.8	3.2
Played with toys or games indoors	1433	98.1	98.7	0.7
Played a game, sport, or exercised together	1435	85.0	93.1	8.1*
Took child along on errands	1435	96.2	96.4	0.3
Involved child in household chores	1435	92.4	92.4	0.0
Talked about what happened in Head Start	1433	96.3	95.3	-1.0
Talked about TV programs or videos	1434	77.3	83.4	6.0*
Played counting games	1434	88.9	91.2	2.3
Played a board game or a card game	1434	40.9	52.9	12.0*
Played with blocks	1428	57.5	60.2	2.7
Counted different things	1430	91.3	93.9	2.6*
Activities with child	n	Mean	Mean	Mean
<b>Number of activities</b>	1435	11.7	12.1	0.4*

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

Table A.10. Household routines, overall and by Head Start exposure: Spring 2015

Household routines	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Child has regular bedtime</b>	1593	87.7	643	87.3	371	90.8	1014	88.6	579	86.0
<b>Number of days per week family eats dinner together</b>	1627		653		379		1032		595	
0-2		6.5		6.7		4.3		5.8		7.8
3-4		19.5		18.1		18.2		18.1		22.1
5-6		24.9		26.0		25.4		25.7		23.2
7		49.1		49.2		52.1		50.3		46.9
Household routines	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean
<b>Number of days per week family eats dinner together</b>	1627	5.5	653	5.6	379	5.7	1032	5.6	595	5.4

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents reported the total number of days per week the family eats dinner together. From these responses, we created a variable that categorizes the number of days into four categories, as presented in the table. This table presents mean number of days (from the continuous data).

<sup>a</sup>Age as of September 1, 2014

Table A.10a. Change in household routines: Fall 2014-Spring 2015

Household routines	n	Fall 2014	Spring 2015	Fall-Spring Change
		Percentage	Percentage	Percentage
<b>Child has regular bedtime</b>	1369	87.6	88.6	1.1
<b>Number of days per week family eats dinner together</b>	1428			
0-2		7.7	5.9	-1.8
3-4		18.6	20.2	1.6
5-6		24.6	24.4	-0.1
7		49.1	49.4	0.3
Household routines	n	Mean	Mean	Mean
<b>Number of days per week family eats dinner together</b>	1428	5.5	5.6	0.0

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs. The n column in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents reported the total number of days per week the family eats dinner together. From these responses, we created a variable that categorizes the number of days into four categories, as presented in the table. This table presents mean number of days (from the continuous data).

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

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SECTION B

CHILD COGNITIVE DEVELOPMENT:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE



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Table B.1. Reliability of the English and Spanish direct assessments of children's language, literacy, and math development: Spring 2015

Constructs (measures)	Number of items administered	Cronbach's alpha
<b>Constructs assessed for all children</b>		
Receptive vocabulary (PPVT-4 standard score)	192	0.97
<b>Constructs (measures) assessed in English or primarily assessed in English<sup>a</sup></b>		
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	63	0.90
Early writing (WJ III NU: Spelling standard score)	24	0.84
Early math (WJ III NU: Applied Problems standard score)	31	0.88
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	10	0.84 <sup>b</sup>
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	52	0.86 <sup>b</sup>
Early math (ECLS-B math IRT score)	22	0.82 <sup>b</sup>
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score)	3	0.39 <sup>c</sup>
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	44	0.92 <sup>b</sup>
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>d</sup></b>		
Expressive vocabulary (EOWPVT-4 standard score)	136	0.97
<b>Constructs assessed for all children who most often use Spanish at home<sup>d</sup></b>		
Spanish receptive vocabulary (ROWPVT-4: SBE standard score)	96	0.96
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score)	129	0.95
<b>Constructs assessed for all children primarily assessed in Spanish<sup>a</sup></b>		
Letter-word knowledge (WM III NU: Letter-Word Identification standard score)	15	0.82
Early writing (WM III NU: Spelling standard score)	23	0.71
Early math (WM III NU: Applied Problems standard score)	19	0.87

Source: Spring 2015 FACES Direct Child Assessment.

<sup>a</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

<sup>b</sup>For these IRT scores, we present the reliability coefficient of the number right of the items that a measure contributed to the combined IRT score. The reliability of the IRT score is only available for the combined score and is based on the reliability of theta and applies to both letter-sounds (0.83) or early math (0.88) IRT scores.

<sup>c</sup>This reliability coefficient is split-half based on 3 items. The proficiency probability score uses information from all administered ECLS-B math items (the theta) to identify the probability that the child answers the 3 items correctly.

<sup>d</sup>We use parent-reported data to identify the language the child uses most often at home.

Table B.2. Children's language of direct assessment, overall and by Head Start exposure: Spring 2015

Language of direct assessment	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Direct assessment language<sup>b</sup></b>	1835		733		431		1164		671	
Assessed in English		77.5		76.4		82.2		78.6		75.4
Primarily assessed in English		15.5		13.1		12.7		12.9		20.2
Primarily assessed in Spanish		6.9		10.4		4.9		8.3		4.4
Assessed in English, shortened assessment battery		0.1		0.1		0.2		0.1		0.0

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

Table B.2a. Change in children's language of direct assessment: Fall 2014-Spring 2015

Language of direct assessment	n	Fall 2014	Spring 2015	Fall-Spring Change
		Percentage	Percentage	Percentage
<b>Direct assessment language<sup>a</sup></b>	1769			
Assessed in English		77.2	77.6	0.4*
Primarily assessed in English		10.1	15.4	5.3*
Primarily assessed in Spanish		12.2	6.9	-5.3*
Assessed in English, shortened assessment battery		0.5	0.1	-0.4*

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

Table B.3. Children's language of direct assessment, overall and by child's primary home language<sup>a</sup>: Spring 2015

Language of direct assessment	Child's primary home language is English		Child's primary home language is not English	
	n	Percentage	n	Percentage
<b>Direct assessment language<sup>b</sup></b>	1346		488	
Assessed in English		97.0		19.0
Primarily assessed in English		2.1		55.8
Primarily assessed in Spanish		0.9		24.9
Assessed in English, shortened assessment battery		0.0		0.3

Source: Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

Table B.4. Summary statistics for children's English receptive vocabulary standard scores, overall and by child and family characteristics<sup>a</sup>: Spring 2015

Child and family characteristics	English receptive vocabulary (PPVT-4 standard score)						
	n	Mean	SD	Reported score range	Possible score range	Percentage of children <sup>b</sup>	
						Within 1 SD below norm	2 or more SDs below norm
<b>All children</b>	1624	91.8	15.0	46 - 146	20 - 160	36.5	11.3
<b>Head Start exposure</b>							
All newly entering children	996	92.3	14.63	46 - 146	20 - 160	36.3	11.3
3-year-olds <sup>c</sup>	600	91.7	14.03	52 - 133	20 - 160	34.8	11.9
4-year-olds <sup>c</sup>	396	93.2	15.39	46 - 146	20 - 160	38.6	10.5
All returning children	628	91.0	15.53	47 - 136	20 - 160	37.0	11.3
<b>Primary home language other than English<sup>d</sup></b>							
Yes	371	79.7	13.4	46 - 133	20 - 160	25.7	33.2
No	1252	95.2	13.6	47 - 146	20 - 160	39.9	4.3

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the performance of all children on the PPVT-4 assessment, regardless of language of direct assessment.

<sup>b</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>c</sup>Age as of September 1, 2014.

<sup>d</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table B.4a. Change in children's English receptive vocabulary standard scores, overall and by child and family characteristics<sup>a</sup>: Fall 2014-Spring 2015

Child and family characteristics	English receptive vocabulary (PPVT-4 standard score)			
		Fall 2014	Spring 2015	Fall-Spring Change
	n	Mean	Mean	Mean
<b>All children</b>	1629	89.9	91.7	1.8*
<b>Head Start exposure</b>				
All newly entering children	1001	90.3	92.2	1.9*
3-year-olds <sup>b</sup>	605	90.4	91.5	1.0
4-year-olds <sup>b</sup>	396	90.1	93.3	3.0*
All returning children	628	89.3	91.0	1.7*
<b>Primary home language other than English<sup>c</sup></b>				
Yes	374	77.1	79.5	2.4*
No	1254	93.5	95.1	1.6*

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Data in this table reflect the performance of all children on the PPVT-4 assessment, regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table B.5. Summary statistics for children's English expressive vocabulary standard scores, overall and by child and family characteristics for children who most often use an English or Other (non-Spanish) language at home<sup>a</sup>: Spring 2015

Child and family characteristics	English expressive vocabulary (EOWPVT-4 standard score)						
	n	Mean	SD	Reported score range <sup>c</sup>	Possible score range <sup>c</sup>	Percentage of children <sup>b</sup>	
						Within 1 SD below norm	2 or more SDs below norm
<b>All children</b>	1394	97.2	17.3	45 - 155	45 - 155	33.8	5.6
<b>Head Start exposure</b>							
All newly entering children	900	97.4	17.0	45 - 155	45 - 155	34.4	5.6
3-year-olds <sup>d</sup>	553	95.7	16.5	45 - 144	45 - 155	36.8	6.2
4-year-olds <sup>d</sup>	347	100.0	17.4	45 - 155	45 - 155	30.8	4.6
All returning children	494	96.8	17.7	45 - 155	45 - 155	32.7	5.8
<b>Primary home language other than English<sup>e</sup></b>							
Yes	96	82.9	19.0	45 - 128	45 - 155	32.1	28.1
No	1297	98.2	16.7	45 - 155	45 - 155	34.0	4.2

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4 performance of all children who most often use an English or Other (non-Spanish) language at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>c</sup>The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>d</sup>Age as of September 1, 2014.

<sup>e</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.



Table B.5a. Change in children's English expressive vocabulary standard scores, overall and by child and family characteristics for children who most often use an English or Other (non-Spanish) language at home<sup>a</sup>: Fall 2014-Spring 2015

Child and family characteristics	English expressive vocabulary (EOWPVT-4 standard score)			
	n	Fall 2014 Mean	Spring 2015 Mean	Fall-Spring Change Mean
<b>All children</b>	1347	95.3	97.6	2.3*
<b>Head Start exposure</b>				
All newly entering children	872	94.8	97.8	3.0*
3-year-olds <sup>b</sup>	533	93.8	96.3	2.5*
4-year-olds <sup>b</sup>	339	96.3	99.9	3.6*
All returning children	475	96.3	97.1	0.8
<b>Primary home language other than English<sup>c</sup></b>				
Yes	92	78.3	83.0	4.7*
No	1254	96.5	98.6	2.1*

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Data in this table reflect the EOWPVT-4 performance of all children who most often use an English or Other (non-Spanish) language at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table B.6. Summary statistics for children's Spanish receptive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Spring 2015<sup>b</sup>

Child and family characteristics	Spanish receptive vocabulary (ROWPVT-4: SBE standard score)						Percentage of children <sup>c</sup>	
	n	Mean	SD	Reported score range <sup>d</sup>	Possible score range <sup>d</sup>	Percentage of children <sup>c</sup>		
						Within 1 SD below norm	2 or more SDs below norm	
<b>All children</b>	440	83.2	13.5	45 - 126	45 - 155	48.8	15.2	
<b>Head Start exposure</b>								
All newly entering children	263	83.4	12.7	45 - 126	45 - 155	49.9	14.4	
3-year-olds <sup>e</sup>	179	83.5	13.7	45 - 126	45 - 155	50.4	17.2	
4-year-olds <sup>e</sup>	84	83.3	10.2	45 - 105	45 - 155	48.7	8.3	
All returning children	177	82.9	14.7	45 - 116	45 - 155	47.2	16.4	

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the ROWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only.

<sup>c</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>d</sup>The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>e</sup>Age as of September 1, 2014.

Table B.6a. Change in children's Spanish receptive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Fall 2014-Spring 2015<sup>b</sup>

	Spanish receptive vocabulary (ROWPVT-4: SBE standard score)			
		Fall 2014	Spring 2015	Fall-Spring Change
Child and family characteristics	n	Mean	Mean	Mean
<b>All children</b>	402	83.9	83.2	-0.7
<b>Head Start exposure</b>				
All newly entering children	242	83.4	83.4	0.0
3-year-olds <sup>c</sup>	161	82.9	83.4	0.5
4-year-olds <sup>c</sup>	81	84.3	83.3	-0.9
All returning children	160	84.8	82.9	-1.9

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the ROWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only.

<sup>c</sup>Age as of September 1, 2014.

Table B.7. Summary statistics for children's conceptual expressive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Spring 2015<sup>b</sup>

Child and family characteristics	Conceptual expressive vocabulary (EOWPVT-4: SBE standard score)						
	n	Mean	SD	Reported score range <sup>d</sup>	Possible score range <sup>d</sup>	Percentage of children <sup>c</sup>	
						Within 1 SD below norm	2 or more SDs below norm
<b>All children</b>	441	100.0	14.8	45 - 155	45 - 155	38.3	3.0
<b>Head Start exposure</b>							
All newly entering children	264	100.2	12.9	45 - 141	45 - 155	38.1	1.2
3-year-olds <sup>e</sup>	180	99.7	13.2	45 - 141	45 - 155	34.5	1.8
4-year-olds <sup>e</sup>	84	101.1	12.3	71 - 132	45 - 155	46.0	0.0
All returning children	177	99.6	17.3	45 - 155	45 - 155	38.6	5.8

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to Spanish-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

<sup>c</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>d</sup>The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>e</sup>Age as of September 1, 2014.

Table B.7a. Change in children's conceptual expressive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Fall 2014-Spring 2015<sup>b</sup>

Child and family characteristics	Conceptual expressive vocabulary (EOWPVT-4: SBE standard score)			
	n	Fall 2014	Spring 2015	Fall-Spring Change
		Mean	Mean	Mean
<b>All children</b>	405	98.6	99.7	1.0
<b>Head Start exposure</b>				
All newly entering children	244	96.7	99.8	3.0*
3-year-olds <sup>c</sup>	163	95.2	99.1	3.9*
4-year-olds <sup>c</sup>	81	99.8	101.1	1.2
All returning children	161	101.6	99.5	-2.1

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to Spanish-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Data in this table reflect the EOWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

<sup>c</sup>Age as of September 1, 2014.

Table B.8. Summary statistics for children's language, literacy, and math standard and IRT scores for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	n	Mean	SD	Reported score range	Possible score range	Percentage of children <sup>a</sup>	
						Within 1 SD below norm	2 or more SDs below norm
<b>Constructs assessed for all children</b>							
Receptive vocabulary (PPVT-4 standard score)	1585	92.5	14.5	47 - 146	20 - 160	38.8	7.6
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1699	95.8	13.6	53 - 167	0 - 200	37.9	2.8
Early writing (WJ III NU: Spelling standard score)	1704	90.4	16.7	29 - 133	0 - 200	34.7	12.7
Early math (WJ III NU: Applied Problems standard score)	1708	95.0	12.9	41 - 138	0 - 200	50.2	5.2
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	1047	1.7	2.2	0.0 - 9.3	0 - 10	n.a.	n.a.
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	1047	12.3	5.1	4.9 - 27.2	0 - 54	n.a.	n.a.
Early math (ECLS-B math IRT score)	1703	9.8	3.3	2.7 - 19.1	0 - 30	n.a.	n.a.
Number and shape knowledge (ECLS-B number/shape proficiency probability score <sup>b</sup> )	1703	0.58	0.33	0.00 - 1.00	0 - 1.00	n.a.	n.a.
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1703	21.1	7.6	3.3 - 40.6	0 - 56	n.a.	n.a.
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>							
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1392	97.3	17.2	45 - 155	45 - 155	33.8	5.6
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>							
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	317	83.5	12.9	45 - 126	45 - 155	46.1	14.1
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	318	103.3	12.7	45 - 155	45 - 155	35.1	0.7

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted.

These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time.

n.a. = not applicable.

**Table B.8** (continued)

<sup>a</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally. The publisher provides a range of  $<55$  to  $>145$ , but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. The publisher provides a range of  $<55$  to  $>145$ , but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

Table B.8a. Change in children's language, literacy, and math standard and IRT scores for children assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		Mean	Mean	Mean
<b>Constructs assessed for all children</b>				
Receptive vocabulary (PPVT-4 standard score)	1494	92.0	93.6	1.6*
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1510	94.2	96.3	2.1*
Early writing (WJ III NU: Spelling standard score)	1523	91.0	90.8	-0.3
Early math (WJ III NU: Applied Problems standard score)	1524	93.9	95.9	2.0*
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	437	1.0	2.9	1.9*
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	437	10.7	15.4	4.7*
Early math (ECLS-B math IRT score)	1516	8.2	10.0	1.8*
Number and shape knowledge (ECLS-B number/shape proficiency probability score <sup>a</sup> )	1516	0.42	0.61	0.19*
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1516	16.7	21.6	4.9*
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>b</sup></b>				
Expressive vocabulary (EOWPVT-4 standard score <sup>c</sup> )	1337	95.6	97.8	2.2*
<b>Constructs assessed for all children who most often use Spanish at home<sup>b</sup></b>				
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>d</sup> )	188	84.5	83.8	-0.6
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	189	104.9	105.8	0.8

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. IRT-based scores provide information on children's absolute performance at a specific point in time. See Table B.8 for possible response ranges.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>b</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>c</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>d</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.



Table B.9. Summary statistics for children's language, literacy, and math standard and IRT scores, by Head Start exposure for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	Newly entering children											
	3-year-olds <sup>a</sup>			4-year-olds <sup>a</sup>			All newly entering children			All returning children		
	n	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD
<b>Constructs assessed for all children</b>												
Receptive vocabulary (PPVT-4 standard score)	580	92.5	13.5	389	93.8	14.7	969	93.0	14.0	616	91.7	15.1
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	653	96.4	12.8	406	94.6	13.3	1059	95.7	13.0	640	95.9	14.5
Early writing (WJ III NU: Spelling standard score)	652	89.8	16.0	407	89.8	16.7	1059	89.8	16.3	645	91.6	17.2
Early math (WJ III NU: Applied Problems standard score)	655	94.7	13.3	407	95.3	11.8	1062	94.9	12.7	646	95.2	13.2
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	292	0.8	1.3	275	2.0	2.3	567	1.4	2.0	480	2.1	2.4
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	292	10.1	3.7	275	13.0	5.3	567	11.5	4.7	480	13.4	5.3
Early math (ECLS-B math IRT score)	652	8.0	2.7	406	10.9	3.0	1058	9.1	3.2	645	11.0	3.1
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	652	0.4	0.3	406	0.7	0.3	1058	0.5	0.3	645	0.7	0.3
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	652	16.8	6.6	406	23.6	6.8	1058	19.5	7.5	645	23.8	6.9
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>												
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	552	95.7	16.5	346	100.1	17.2	898	97.5	16.9	494	96.8	17.7
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>												
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	104	83.4	13.7	61	83.4	10.2	165	83.4	12.5	152	83.6	13.4
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	105	103.7	11.5	61	103.3	12.5	166	103.6	11.9	152	103.0	13.7

**Table B.9** (continued)

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. IRT-based scores provide information on children's absolute performance at a specific point in time. See Table B.8 for possible response ranges.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table B.9a. Change in children's language, literacy, and math standard and IRT scores, by Head Start exposure for children assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>			4-year-olds <sup>a</sup>			All newly entering children			All returning children						
	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 4014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change				
	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean
<b>Constructs assessed for all children</b>																
Receptive vocabulary (PPVT-4 standard score)	539	92.8	93.5	0.7	373	91.8	94.9	3.1*	912	92.4	94.1	1.7*	582	91.3	92.9	1.5*
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	562	93.0	97.0	4.0*	373	93.3	95.1	1.8*	935	93.1	96.2	3.1*	575	96.2	96.4	0.3
Early writing (WJ III NU: Spelling standard score)	567	89.0	90.4	1.4	376	90.1	89.9	-0.3	943	89.5	90.2	0.7	580	93.8	91.9	-1.9*
Early math (WJ III NU: Applied Problems standard score)	568	91.6	95.9	4.4*	376	95.7	95.7	0.0	944	93.3	95.8	2.6*	580	95.1	96.1	1.0
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	63	0.6	1.7	1.1*	113	1.1	3.0	1.9*	176	0.9	2.6	1.6*	261	1.1	3.2	2.1*
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	63	9.5	12.8	3.3*	113	10.7	15.5	4.8*	176	10.3	14.6	4.3*	261	11.0	16.0	5.0*
Early math (ECLS-B math IRT score)	561	6.3	8.2	1.9*	373	9.3	11.0	1.7*	934	7.5	9.4	1.8*	582	9.4	11.2	1.7*
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	561	0.2	0.4	0.2*	373	0.5	0.7	0.2*	934	0.3	0.5	0.2*	582	0.5	0.7	0.2*
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	561	12.3	17.4	5.2*	373	19.2	23.9	4.7*	934	15.1	20.1	5.0*	582	19.5	24.3	4.8*
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>																
Expressive vocabulary (EOWPVT-4 standard scored)	528	94.1	96.5	2.4*	336	96.8	100.3	3.6*	864	95.2	98.0	2.9*	473	96.5	97.3	0.8

Table B.9a (continued)

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>			4-year-olds <sup>a</sup>			All newly entering children			All returning children						
	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 4014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change				
n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean	
<b>Constructs only assessed for all children who most often use Spanish at home<sup>c</sup></b>																
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>a</sup> )	44	84.8	85.1	0.3	40	84.0	81.9	-2.0	84	84.4	83.6	-0.8	104	84.5	84.0	-0.5
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	44	102.1	105.6	3.5	40	105.8	106.9	1.2	84	103.8	106.2	2.4	105	105.9	105.3	-0.6

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. IRT-based scores provide information on children's absolute performance at a specific point in time. See Table B.8 for possible response ranges.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the beginning or end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to young children nationally with a Spanish home language who were allowed responses and/or prompts in Spanish and English.

Table B.10. Summary statistics for children's language, literacy, and math standard and IRT scores, by child's primary home language<sup>a</sup> for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	Child's primary home language is English			Child's primary home language is not English		
	n	Mean	SD	n	Mean	SD
<b>Constructs assessed for all children</b>						
Receptive vocabulary (PPVT-4 standard score)	1250	95.2	13.6	334	81.6	12.8
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1323	96.3	13.5	375	93.7	13.6
Early writing (WJ III NU: Spelling standard score)	1329	90.5	16.6	374	90.1	16.9
Early math (WJ III NU: Applied Problems standard score)	1332	96.1	13.0	375	91.0	11.7
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	823	1.8	2.2	223	1.4	2.0
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	823	12.5	5.1	223	11.6	4.8
Early math (ECLS-B math IRT score)	1328	10.0	3.3	374	9.2	2.8
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	1328	0.60	0.34	374	0.53	0.32
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1328	21.4	7.8	374	19.8	6.7
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>						
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1297	98.2	16.7	94	83.5	18.5
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>						
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	n.a.	n.a.	n.a.	281	83.7	13.0
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	n.a.	n.a.	n.a.	282	102.6	12.1

Source: Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. IRT-based scores provide information on children's absolute performance at a specific point in time. See Table B.8 for possible response ranges.

n.a. = not applicable. Measure only administered to children who most often use Spanish at home.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

**Table B.10** *(continued)*

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table B.10a. Change in children's language, literacy, and math standard and IRT scores, by child's primary home language<sup>a</sup> for children taking assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	Child's primary home language is English				Child's primary home language is not English			
	n	Fall 2014 Mean	Spring 2015 Mean	Fall-Spring Change Mean	n	Fall 2014 Mean	Spring 2015 Mean	Fall-Spring Change Mean
<b>Constructs assessed for all children</b>								
Receptive vocabulary (PPVT-4 standard score)	1246	93.7	95.3	1.6*	247	82.9	84.6	1.7*
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1261	94.5	96.6	2.1*	248	92.7	94.6	1.9*
Early writing (WJ III NU: Spelling standard score)	1274	90.8	90.8	0.0	249	92.3	90.7	-1.6
Early math (WJ III NU: Applied Problems standard score)	1274	94.6	96.4	1.8*	249	90.4	93.3	2.9*
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	358	1.0	3.0	1.9*	79	0.9	2.7	1.8*
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	358	10.7	15.5	4.8*	79	10.6	14.9	4.3*
Early math (ECLS-B math IRT score)	1264	8.3	10.1	1.8*	251	7.8	9.8	1.9*
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	1264	0.43	0.61	0.18*	251	0.37	0.59	0.21*
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1264	16.9	21.7	4.8*	251	15.9	21.1	5.2*
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>								
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1254	96.5	98.6	2.1*	82	81.2	85.2	4.0*
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>								
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	n.a.	n.a.	n.a.	n.a.	164	85.2	84.0	-1.1
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	n.a.	n.a.	n.a.	n.a.	165	104.4	105.1	0.6

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. IRT-based scores provide information on children's absolute performance at a specific point in time. See Table B.8 for possible response ranges.

\*  $p < .05$ . This denotes statistically significant fall-spring change prior to any rounding.

n.a. = not applicable. Measure only administered to children who most often use Spanish at home.

**Table B.10a** *(continued)*

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the beginning or end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.



Table B.11. Summary statistics for children's language, literacy, and math standard scores for children primarily assessed in Spanish: Spring 2015

Constructs (measures)	n	Mean	SD	Reported score range	Possible score range	Percentage of children <sup>a</sup>	
						Within 1 SD below norm	2 or more SDs below norm
Receptive vocabulary (PPVT-4 standard score <sup>b</sup> )	39	65.1	8.2	46 - 87	20 - 160	0.9	69.4
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>c</sup> )	123	82.7	14.7	45 - 112	45 - 155	55.0	17.5
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	123	92.4	16.2	45 - 141	45 - 155	45.5	8.1
Letter-word knowledge (WM III NU: Letter-Word Identification standard score)	97	96.0	14.6	65 - 126	0 - 200	36.9	5.9
Early writing (WM III NU: Spelling standard score)	123	83.1	17.5	29 - 137	0 - 200	31.3	18.5
Early math (WM III NU: Applied Problems standard score)	122	77.7	16.2	38 - 118	0 - 200	36.7	36.6

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to Spanish-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>In this column, reported standard scores have been categorized using standard deviation units: scores within one standard deviation below norms (between 85 and 100) and scores at least two standard deviations below norms (less than or equal to 70).

<sup>b</sup>The PPVT-4 standard scores reflect children's English vocabulary skills relative to English-speaking children of the same age nationally.

<sup>c</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively

<sup>d</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively

Table B.11a. Change in children's language, literacy, and math standard scores for children primarily assessed in Spanish: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		Mean	Mean	Mean
Receptive vocabulary (PPVT-4 standard score <sup>a</sup> )	40	60.9	64.5	3.7*
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>b</sup> )	113	80.6	82.3	1.8
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	114	91.7	91.8	0.1
Letter-word knowledge (WM III NU: Letter-Word Identification standard score)	60	94.8	94.5	-0.3
Early writing (WM III NU: Spelling standard score)	112	83.8	82.6	-1.1
Early math (WM III NU: Applied Problems standard score)	105	77.2	78.7	1.5

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to Spanish-speaking children of the same age nationally unless otherwise noted.

These scores have a mean of 100 and a standard deviation of 15. See Table B.11 for possible response ranges.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>The PPVT-4 standard scores reflect children's English vocabulary skills relative to English-speaking children of the same age nationally.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

<sup>c</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

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SECTION C

CHILD SOCIAL-EMOTIONAL DEVELOPMENT:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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Table C.1. Reliability of children's executive function, social skills, problem behaviors, and approaches to learning scores: Spring 2015

Constructs (measures)	Number of items administered	Cronbach's alpha
<b>Direct child assessment</b>		
Executive function (pencil tapping <sup>a</sup> )	16	0.90
<b>Teacher child report</b>		
Social skills <sup>b</sup>	12	0.91
Problem behaviors total score <sup>b</sup>	14	0.87
Aggressive behavior	4	0.86
Hyperactive behavior	3	0.77
Withdrawn behavior	6	0.75
Approaches to learning (ECLS-K)	6	0.93
<b>Assessor rating during direct assessment</b>		
Cognitive/social behavior (Leiter-R)		
Total score	4	0.90
Attention	10	0.97
Organization/impulse control	8	0.94
Activity level	4	0.94
Sociability	5	0.92
Total standard score <sup>c</sup>	4	0.90

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, and Assessor Rating.

<sup>a</sup>In the Pencil Tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>b</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>c</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table C.2. Summary statistics for children's executive function, social skills, problem behaviors, and approaches to learning scores: Spring 2015

Constructs (measures)	n	Mean	SD	Reported score range	Possible score range
<b>Direct child assessment</b>					
Executive function (pencil tapping <sup>a</sup> )	1530	59.3	34.7	0 - 100	0 - 100
<b>Teacher child report</b>					
Social skills <sup>b</sup>	1845	17.5	4.9	0 - 24	0 - 24
Problem behaviors total score <sup>b</sup>	1848	4.0	4.6	0 - 28	0 - 28
Aggressive behavior	1848	1.4	1.9	0 - 8	0 - 8
Hyperactive behavior	1848	1.2	1.5	0 - 6	0 - 6
Withdrawn behavior	1848	1.1	1.7	0 - 12	0 - 12
Approaches to learning (ECLS-K)	1848	1.9	0.7	0 - 3	0 - 3
<b>Assessor rating during direct assessment</b>					
Cognitive/social behavior (Leiter-R)					
Total score	1828	64.3	16.5	0 - 81	0 - 81
Attention	1828	23.1	6.7	0 - 30	0 - 30
Organization/impulse control	1828	18.7	5.2	0 - 24	0 - 24
Activity level	1828	9.3	2.9	0 - 12	0 - 12
Sociability	1828	13.2	2.7	0 - 15	0 - 15
Total standard score <sup>c</sup>	1828	96.2	15.3	40 - 124	40 - 126

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise.

<sup>a</sup>In the Pencil Tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>b</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>c</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table C.2a. Change in children's executive function, social skills, problem behaviors, and approaches to learning scores: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		Mean	Mean	Mean
<b>Direct child assessment</b>				
Executive function (pencil tapping <sup>a</sup> )	1102	47.1	65.0	17.9*
<b>Teacher child report</b>				
Social skills <sup>b</sup>	1818	15.8	17.5	1.7*
Problem behaviors total score <sup>b</sup>	1827	4.1	4.0	-0.1
Aggressive behavior	1827	1.4	1.4	0.0
Hyperactive behavior	1822	1.3	1.2	-0.1*
Withdrawn behavior	1827	1.1	1.1	0.0
Approaches to learning (ECLS-K)	1826	1.7	1.9	0.2*
<b>Assessor rating during direct assessment</b>				
Cognitive/social behavior (Leiter-R)				
Total score	1739	62.5	64.4	1.9
Attention	1740	22.5	23.2	0.7
Organization/impulse control	1739	18.1	18.7	0.6
Activity level	1739	9.0	9.3	0.3
Sociability	1739	12.9	13.2	0.3
Total standard score <sup>c</sup>	1739	96.4	96.2	-0.2

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>In the Pencil Tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>b</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>c</sup>This standard score has a mean of 100 and a standard deviation of 15.



Table C.3. Summary statistics for children's executive function, social skills, problem behaviors, and approaches to learning scores, by Head Start exposure: Spring 2015

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>				4-year-olds <sup>a</sup>				All newly entering children				All returning children			
	n	Mean	SD	Reported score range	n	Mean	SD	Reported score range	n	Mean	SD	Reported score range	n	Mean	SD	Reported score range
<b>Direct child assessment</b>																
Executive function (pencil tapping <sup>b</sup> )	438	44.1	33.1	0 - 100	429	66.8	32.8	0 - 100	867	55.4	34.8	0 - 100	663	64.8	33.9	0 - 100
<b>Teacher child report</b>																
Social skills <sup>c</sup>	735	16.6	5.0	0 - 24	420	18.2	4.7	3 - 24	1155	17.2	4.9	0 - 24	690	18.2	4.8	0 - 24
Problem behaviors total score <sup>c</sup>	735	4.6	4.9	0 - 28	423	3.5	4.1	0 - 20	1158	4.2	4.7	0 - 28	690	3.5	4.4	0 - 28
Aggressive behavior	735	1.6	2.0	0 - 8	423	1.1	1.7	0 - 8	1158	1.4	1.9	0 - 8	690	1.3	1.9	0 - 8
Hyperactive behavior	735	1.5	1.6	0 - 6	423	1.0	1.4	0 - 6	1158	1.3	1.6	0 - 6	690	0.9	1.3	0 - 6
Withdrawn behavior	735	1.2	1.8	0 - 12	423	1.1	1.6	0 - 8	1158	1.2	1.7	0 - 12	690	1.1	1.7	0 - 12
Approaches to learning (ECLS-K)	735	1.8	0.7	0 - 3	423	2.0	0.7	0 - 3	1158	1.9	0.7	0 - 3	690	2.0	0.8	0 - 3
<b>Assessor rating during direct assessment</b>																
Cognitive/social behavior (Leiter-R)																
Total score	729	61.3	17.0	0 - 81	429	66.4	15.4	0 - 81	1158	63.2	16.6	0 - 81	670	66.2	16.1	0 - 81
Attention	729	21.7	6.9	0 - 30	429	24.1	6.3	0 - 30	1158	22.6	6.8	0 - 30	670	24.0	6.5	0 - 30
Organization/ impulse control	729	17.7	5.6	0 - 24	429	19.4	4.7	0 - 24	1158	18.4	5.3	0 - 24	670	19.2	5.1	0 - 24
Activity level	729	8.9	2.9	0 - 12	429	9.6	2.6	0 - 12	1158	9.1	2.8	0 - 12	670	9.6	2.9	0 - 12
Sociability	729	13.0	2.6	0 - 15	429	13.3	2.7	0 - 15	1158	13.1	2.7	0 - 15	670	13.4	2.7	0 - 15
Total standard score <sup>d</sup>	729	94.7	15.5	40 - 124	429	97.2	14.9	40 - 117	1158	95.7	15.3	40 - 124	670	97.1	15.2	40 - 124

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise. See Table C.2 for possible response ranges.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table C.3a. Change in children's executive function, social skills, problem behaviors, and approaches to learning scores, by Head Start exposure: Fall 2014-Spring 2015

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>			4-year-olds <sup>a</sup>			All newly entering children			All returning children						
	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change				
	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean
<b>Direct child assessment</b>																
Executive function (pencil tapping <sup>b</sup> )	102	33.0	49.1	16.1*	410	49.1	66.8	17.7*	512	45.8	63.2	17.4*	590	48.4	66.8	18.4*
<b>Teacher child report</b>																
Social skills <sup>c</sup>	725	14.3	16.6	2.3*	414	16.8	18.1	1.3*	1139	15.3	17.2	1.9*	679	16.7	18.1	1.4*
Problem behaviors total score <sup>c</sup>	727	4.8	4.6	-0.2	420	3.3	3.5	0.2	1147	4.2	4.2	0.0	680	3.8	3.5	-0.3
Aggressive behavior	727	1.6	1.5	0.1	420	1.0	1.1	0.1*	1147	1.3	1.4	0.1	680	1.4	1.3	-0.1
Hyperactive behavior	724	1.7	1.5	-0.2*	419	1.0	1.1	0.1	1143	1.4	1.3	-0.1	679	1.1	0.9	-0.2*
Withdrawn behavior	727	1.1	1.2	0.1	420	1.1	1.1	0.1	1147	1.1	1.2	0.1	680	1.1	1.1	-0.1
Approaches to learning (ECLS-K)	727	1.5	1.8	0.2*	419	1.9	2.0	0.1*	1146	1.7	1.9	0.2*	680	1.9	2.0	0.2*
<b>Assessor rating during direct assessment</b>																
Cognitive/social behavior (Leiter-R)																
Total score	692	58.1	61.4	3.3*	413	66.2	66.5	0.3	1105	61.2	63.4	2.1	634	64.9	66.4	1.5
Attention	692	20.6	21.8	1.2	413	24.0	24.1	0.1	1105	21.9	22.7	0.8	635	23.5	24.1	0.6
Organization/impulse control	692	16.7	17.7	1.1*	413	19.3	19.5	0.2	1105	17.7	18.4	0.7	634	18.9	19.3	0.4
Activity level	692	8.4	8.9	0.5	413	9.6	9.6	0.0	1105	8.8	9.2	0.3	634	9.3	9.6	0.3
Sociability	692	12.4	13.0	0.6*	413	13.3	13.3	0.0	1105	12.8	13.1	0.4	634	13.3	13.4	0.1
Total standard score <sup>d</sup>	692	95.4	94.6	-0.8	413	97.9	97.4	-0.5	1105	96.4	95.7	-0.7	634	96.5	97.2	0.7

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise. See Table C.2 for possible response ranges.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Age as of September 1, 2014.

**Table C.3a** *(continued)*

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table C.4. Summary statistics for children's executive function, social skills, problem behaviors, and approaches to learning scores, by child's primary home language<sup>a</sup>: Spring 2015

Constructs (measures)	Child's primary home language is English				Child's primary home language is not English			
	n	Mean	SD	Reported score range	n	Mean	SD	Reported score range
<b>Direct child assessment</b>								
Executive function (pencil tapping <sup>b</sup> )	1126	61.3	33.8	0 - 100	403	53.5	36.6	0 - 100
<b>Teacher child report</b>								
Social skills <sup>c</sup>	1362	17.2	5.0	1 - 24	482	18.5	4.6	0 - 24
Problem behaviors total score <sup>c</sup>	1364	4.3	4.7	0 - 28	483	2.9	3.9	0 - 22
Aggressive behavior	1364	1.5	2.0	0 - 8	483	0.9	1.6	0 - 8
Hyperactive behavior	1364	1.3	1.5	0 - 6	483	0.9	1.3	0 - 6
Withdrawn behavior	1364	1.2	1.8	0 - 12	483	0.8	1.4	0 - 8
Approaches to learning (ECLS-K)	1364	1.9	0.8	0 - 3	483	2.1	0.7	0 - 3
<b>Assessor rating during direct assessment</b>								
Cognitive/social behavior (Leiter-R)								
Total score	1340	64.3	16.8	0 - 81	487	64.2	15.5	2 - 81
Attention	1340	23.2	6.8	0 - 30	487	23.0	6.4	0 - 30
Organization/impulse control	1340	18.7	5.3	0 - 24	487	18.6	5.1	0 - 24
Activity level	1340	9.3	2.9	0 - 12	487	9.4	2.6	0 - 12
Sociability	1340	13.2	2.8	0 - 15	487	13.2	2.4	2 - 15
Total standard score <sup>d</sup>	1340	96.2	15.5	40 - 124	487	95.9	14.8	43 - 124

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise. See Table C.2 for possible response ranges.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from zero to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table C.4a. Change in children's executive function, social skills, problem behaviors, and approaches to learning by child's primary home language<sup>a</sup>: Fall 2014-Spring 2015

Constructs (measures)	Child's primary home language is English				Child's primary home language is not English			
		Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change
	n	Mean	Mean	Mean	n	Mean	Mean	Mean
<b>Direct child assessment</b>								
Executive function (pencil tapping <sup>b</sup> )	813	50.5	67.4	16.9*	289	36.9	57.8	20.9*
<b>Teacher child report</b>								
Social skills <sup>c</sup>	1345	15.8	17.2	1.4*	472	15.6	18.4	2.9*
Problem behaviors total score <sup>c</sup>	1351	4.2	4.3	0.1	475	3.6	2.9	-0.7*
Aggressive behavior	1351	1.4	1.5	0.1	475	1.2	0.9	-0.3*
Hyperactive behavior	1346	1.3	1.3	-0.1	475	1.1	0.9	-0.2*
Withdrawn behavior	1351	1.2	1.3	0.1	475	1.0	0.8	-0.2
Approaches to learning (ECLS-K)	1350	1.7	1.9	0.2*	475	1.8	2.1	0.3*
<b>Assessor rating during direct assessment</b>								
Cognitive/social behavior (Leiter-R)								
Total score	1285	62.1	64.6	2.5	453	63.8	63.9	0.1
Attention	1285	22.3	23.3	0.9	454	22.9	22.9	0.0
Organization/impulse control	1285	18.0	18.8	0.8	453	18.5	18.5	0.0
Activity level	1285	8.8	9.3	0.5	453	9.5	9.4	-0.1
Sociability	1285	12.9	13.2	0.3	453	12.9	13.2	0.2
Total standard score <sup>d</sup>	1285	96.0	96.4	0.4	453	97.7	95.6	-2.1

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

Raw scores are reported unless noted otherwise.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

**Table C.4a** *(continued)*

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

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SECTION D

CHILD HEALTH AND PHYSICAL DEVELOPMENT:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE



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Table D.1. Teacher report of children's disability status, impairment type, and IEP or IFSP status: Spring 2015

Report of disability	n	Percentage
<b>Children with disabilities</b>	1844	14.4
<b>Type of impairment among children with disabilities</b>		
Speech or language impairment	247	70.4
Cognitive impairment <sup>a</sup>	247	28.4
Behavioral/emotional impairment <sup>b</sup>	247	19.7
Sensory impairment <sup>c</sup>	247	9.7
Physical impairment <sup>d</sup>	247	4.1
<b>Children with disabilities that have multiple impairments</b>	247	25.3
<b>Children with disabilities that have IEP or IFSP</b>	232	69.2

Source: Spring 2015 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and if so, to indicate the specific need or disability.

Percentages do not add to 100 because children can be reported to have more than one impairment across the impairment categories.

<sup>a</sup>Cognitive impairment includes: developmental delay, mental retardation, and autism or pervasive developmental delay.

<sup>b</sup>Behavioral/emotional impairment includes: behavior problems, hyperactivity, and attention deficit.

<sup>c</sup>Sensory impairment includes: deafness, hearing impairment/hard of hearing, blindness, and vision impairment.

<sup>d</sup>Physical impairment includes: motor impairment.

Table D.2. Teacher report of children's disability status, impairment type, and IEP or IFSP status, by Head Start exposure: Spring 2015

Report of disability	Newly entering children							
	3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>Children with disabilities</b>	733	17.1	422	12.2	1155	15.2	689	12.8
<b>Type of impairment among children with disabilities</b>								
Speech or language impairment	115	70.6	54	72.3	169	71.1	78	69.0
Cognitive impairment <sup>b</sup>	115	38.8	54	21.2	169	33.5	78	17.7
Behavioral/emotional impairment <sup>c</sup>	115	16.9	54	15.6	169	16.5	78	26.5
Sensory impairment <sup>d</sup>	115	13.6	54	9.8	169	12.5	78	4.0
Physical impairment <sup>e</sup>	115	7.5	54	1.5	169	5.7	78	0.7
<b>Children with disabilities that have multiple impairments</b>	115	36.9	54	17.8	169	31.2	78	12.9
<b>Children with disabilities that have IEP or IFSP</b>	109	65.0	46	65.3	155	65.1	77	77.5

Source: Spring 2015 FACES Teacher Child Report, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and if so, to indicate the specific need or disability.

Percentages do not add to 100 because children can be reported to have more than one impairment across the impairment categories.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Cognitive impairment includes: developmental delay, mental retardation, and autism or pervasive developmental delay.

<sup>c</sup>Behavioral/emotional impairment includes: behavior problems, hyperactivity, and attention deficit.

<sup>d</sup>Sensory impairment includes: deafness, hearing impairment/hard of hearing, blindness, and vision impairment.

<sup>e</sup>Physical impairment includes: motor impairment.

Table D.3. Parent-reported child health status, overall and by child and family characteristics: Spring 2015

Child and family characteristics	n	Excellent/ very good	Good	Fair/poor
		Percentage	Percentage	Percentage
<b>All children</b>	1624	82.2	14.5	3.2
<b>Head Start exposure</b>				
All newly entering children	1030	82.0	14.6	3.4
3-year-olds <sup>a</sup>	652	79.9	15.5	4.6
4-year-olds <sup>a</sup>	378	85.5	13.1	1.4
All returning children	594	82.5	14.4	3.0
<b>Primary home language other than English<sup>b</sup></b>				
Yes	447	69.2	25.0	5.8
No	1176	86.7	10.9	2.4

Source: Fall 2014 and Spring 2015 FACES Parent Survey, Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Estimates in each row sum to 100 except where due to rounding.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table D.3a. Change in parent-reported child health status, overall and by child and family characteristics: Fall 2014-Spring 2015

Child and family characteristics	n	Excellent/very good			Good			Fair/poor		
		Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change
		Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage
<b>All children</b>	1429	81.3	82.6	1.2	14.8	14.2	-0.7	3.8	3.3	-0.6
<b>Head Start exposure</b>										
All newly entering children	912	81.4	82.7	1.3	14.4	14.0	-0.5	4.2	3.4	-0.9
3-year-olds <sup>a</sup>	571	79.0	80.7	1.7	15.8	14.8	-1.0	5.2	4.5	-0.7
4-year-olds <sup>a</sup>	341	85.1	85.8	0.7	12.2	12.6	0.4	2.7	1.6	-1.1
All returning children	517	81.3	82.4	1.1	15.6	14.5	-1.0	3.2	3.1	-0.1
<b>Primary home language other than English<sup>b</sup></b>										
Yes	386	64.8	69.3	4.5	29.4	24.5	-5.0	5.8	6.2	0.5
No	1043	87.1	87.2	0.1	9.7	10.6	0.8	3.2	2.2	-0.9

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Estimates in each row sum to 100 except where due to rounding.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table D.4. Children's height and weight: Spring 2015

Height and weight measures	n	Mean
Height (in inches)	1786	42.1
Weight (in pounds)	1786	41.7
Body Mass Index (BMI)	1786	16.5
Height and weight measures	n	Percentage
<b>BMI categories<sup>a</sup></b>	1786	
Child is underweight		2.4
Child is normal weight		63.2
Child is overweight		19.1
Child is obese		15.3

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

Table D.4a. Change in children's height and weight: Fall 2014-Spring 2015

Height and weight measures	n	Fall 2014	Spring 2015	Fall-Spring Change
		Mean	Mean	Mean
Height (in inches)	1660	40.8	42.1	1.2*
Weight (in pounds)	1659	39.2	41.6	2.4*
Body Mass Index (BMI)	1659	16.5	16.5	0.0
Height and weight measures	n	Percentage	Percentage	Percentage
<b>BMI categories<sup>a</sup></b>	1659			
Child is underweight		2.1	2.4	0.3
Child is normal weight		64.3	63.5	-0.8
Child is overweight		19.8	19.2	-0.6
Child is obese		13.8	14.9	1.1

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

Table D.5. Children's height and weight, by Head Start exposure: Spring 2015

Height and weight measures	Newly entering children							
	3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	Mean	n	Mean	n	Mean	n	Mean
Height (in inches)	712	40.5	422	42.9	1134	41.4	652	43.3
Weight (in pounds)	712	38.6	422	42.9	1134	40.3	652	44.2
Body Mass Index (BMI)	712	16.5	422	16.4	1134	16.4	652	16.5
Height and weight measures	n	Percentage	n	Percentage	n	Percentage	n	Percentage
<b>BMI categories<sup>b</sup></b>	712		422		1134		652	
Child is underweight		2.5		2.1		2.4		2.4
Child is normal weight		63.3		64.6		63.8		62.0
Child is overweight		16.8		20.7		18.3		20.6
Child is obese		17.3		12.6		15.5		15.0

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.



Table D.5a. Change in children's height and weight, by Head Start exposure: Fall 2014-Spring 2015

Height and weight measures	Newly entering children															
	3-year-olds <sup>a</sup>				4-year-olds <sup>a</sup>				All newly entering children				All returning children			
	Fall 2014		Spring 2015	Fall-Spring Change	Fall 2014		Spring 2015	Fall-Spring Change	Fall 2014		Spring 2015	Fall-Spring Change	Fall 2014		Spring 2015	Fall-Spring Change
	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean	n	Mean	Mean	Mean
Height (in inches)	663	39.2	40.5	1.2*	394	41.7	42.9	1.2*	1057	40.2	41.4	1.2*	603	42.0	43.3	1.2*
Weight (in pounds)	662	36.3	38.5	2.2*	394	40.6	42.8	2.2*	1056	37.9	40.2	2.2*	603	41.6	44.3	2.7*
Body Mass Index (BMI)	662	16.5	16.5	0.0	394	16.4	16.3	0.0	1056	16.4	16.4	0.0	603	16.5	16.5	0.1
Height and weight measures	n	Percentage	Percentage	Percentage	n	Percentage	Percentage	Percentage	n	Percentage	Percentage	Percentage	n	Percentage	Percentage	Percentage
<b>BMI categories<sup>b</sup></b>	662				394				1056				603			
Child is underweight		2.4	2.4	0.0		1.7	2.2	0.6		2.1	2.3	0.2		2.2	2.6	0.4
Child is normal weight		66.2	64.0	-2.2		63.5	64.9	1.4		65.1	64.3	-0.8		62.6	61.8	-0.8
Child is overweight		19.0	17.2	-1.7		22.1	20.9	-1.2		20.2	18.6	-1.5		19.2	20.3	1.0
Child is obese		12.5	16.4	3.9*		12.8	12.0	-0.8		12.6	14.7	2.1*		15.9	15.3	-0.6

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

\*  $p \leq .05$ . This denotes statistically significant fall-spring change prior to any rounding.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

SECTION AA

STANDARD ERRORS FOR CHILD CHARACTERISTICS AND FAMILY  
ENVIRONMENTS DATA:  
FALL 2014, SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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STANDARD ERRORS FOR FALL 2014 CHILD CHARACTERISTICS AND  
FAMILY ENVIRONMENTS FOR CHILDREN STILL ENROLLED IN SPRING 2015

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Table AA.1. Standard errors for demographic characteristics of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Demographic characteristics	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Head Start exposure</b>										
Newly entering children	1921	2.35	772	0.00	443	0.00	1215	0.00	706	0.00
Returning children	1921	2.35	772	0.00	443	0.00	1215	0.00	706	0.00
<b>Age as of September 1, 2014<sup>a</sup></b>										
3 years old or younger	1900	2.63	772	0.00	443	0.00	1215	3.66	685	1.81
4 years old or older	1900	2.63	772	0.00	443	0.00	1215	3.66	685	1.81
<b>Race/ethnicity</b>										
White, non-Hispanic	1918	3.31	771	4.05	443	4.65	1214	3.60	704	3.66
African American, non-Hispanic	1918	3.44	771	4.68	443	4.11	1214	3.54	704	5.33
Hispanic/Latino	1918	4.32	771	5.26	443	4.45	1214	4.22	704	5.97
American Indian or Alaska Native, non-Hispanic	1918	1.21	771	0.84	443	1.07	1214	0.85	704	1.91
Asian or Pacific Islander, non-Hispanic	1918	0.19	771	0.40	443	0.26	1214	0.25	704	0.28
Multi-racial/bi-racial, non-Hispanic	1918	0.68	771	0.78	443	1.19	1214	0.71	704	1.16
Other, non-Hispanic	1918	0.30	771	0.43	443	0.61	1214	0.41	704	0.36
<b>Gender</b>										
Female	1921	1.17	772	2.14	443	2.45	1215	1.57	706	1.97
Male	1921	1.17	772	2.14	443	2.45	1215	1.57	706	1.97
<b>Participated in Early Head Start</b>										
Yes	1703	1.93	684	3.05	405	2.70	1089	2.23	614	2.54
No	1703	1.93	684	3.05	405	2.70	1089	2.23	614	2.54

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

Table AA.2. Standard errors for home language environment of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Home language environment	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Languages spoken in the home</b>										
English only	1920	3.97	772	5.00	443	4.50	1215	4.19	705	4.57
Spanish	1920	3.92	772	5.06	443	4.11	1215	4.17	705	4.47
Other (non-Spanish) language	1920	1.43	772	1.52	443	1.80	1215	1.42	705	1.84
<b>Primary home language<sup>b</sup></b>										
English	1920	2.92	772	4.21	443	3.82	1215	3.24	705	3.34
Spanish	1920	2.76	772	4.22	443	3.31	1215	3.12	705	3.18
Other (non-Spanish) language	1920	0.89	772	1.09	443	1.16	1215	0.95	705	1.14
<b>Child's primary home language is used for classroom instruction<sup>c</sup></b>										
Yes	1802	1.74	727	2.94	420	1.80	1147	2.34	655	1.52
No	1802	1.74	727	2.94	420	1.80	1147	2.34	655	1.52

Source: Fall 2014 FACES Parent Survey, Spring 2015 Teacher Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>c</sup>This characteristic is based on the teacher's report of the language(s) used for instruction in the classroom, as well as the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table AA.3. Standard errors for household composition of children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Household composition	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Household members</b>										
Biological/adoptive mother and biological/adoptive father	1727	2.12	692	2.95	407	2.56	1099	2.25	628	3.73
Married	1727	1.87	692	2.29	407	3.53	1099	2.06	628	3.72
Registered domestic partnership or civil union	1727	0.36	692	0.69	407	0.75	1099	0.48	628	0.68
Unmarried	1727	1.20	692	1.68	407	2.05	1099	1.36	628	2.24
Marital status not reported	1727	0.50	692	1.20	407	0.19	1099	0.74	628	0.26
Biological/adoptive mother only	1727	2.19	692	3.01	407	2.53	1099	2.22	628	3.89
Biological/adoptive father only	1727	0.61	692	1.24	407	0.90	1099	0.86	628	0.78
Neither biological/adoptive mother nor biological/adoptive father	1727	0.44	692	0.66	407	1.20	1099	0.59	628	0.85
<b>Household composition</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>
<b>Mean number of people in household</b>	1727	0.06	692	0.09	407	0.09	1099	0.06	628	0.10

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

This table focuses on biological/adoptive parents and does not include other adults, such as parents' romantic partners, step-parents, foster parents, or grandparents. Thus, for example, the "Biological mother only" category does not mean that the biological mother is the only adult in the household, but that she is the only biological parent in the household.

<sup>a</sup>Age as of September 1, 2014.



Table AA.4. Standard errors for parent education for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Parent education	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Highest level of education completed by mothers in household</b>										
Less than high school diploma	1591	2.05	642	3.20	371	3.63	1013	2.64	578	2.81
High school diploma or GED	1591	1.27	642	2.04	371	2.92	1013	1.68	578	2.86
Some college/vocational/technical	1591	1.55	642	2.11	371	3.43	1013	2.07	578	2.07
Bachelor's degree or higher	1591	0.89	642	1.46	371	1.32	1013	1.13	578	1.52
<b>Highest level of education completed by fathers in household</b>										
Less than high school diploma	829	3.48	342	4.92	201	5.19	543	4.34	286	3.08
High school diploma or GED	829	2.36	342	2.87	201	5.21	543	3.08	286	3.15
Some college/vocational/technical	829	1.91	342	3.12	201	2.91	543	2.34	286	2.09
Bachelor's degree or higher	829	1.30	342	1.38	201	2.31	543	1.30	286	2.09
<b>Highest level of education completed by any parent in household</b>										
Less than high school diploma	1645	2.07	663	3.05	384	3.21	1047	2.63	598	2.35
High school diploma or GED	1645	1.45	663	2.13	384	2.80	1047	1.78	598	2.61
Some college/vocational/technical	1645	1.59	663	2.05	384	3.18	1047	2.08	598	1.96
Bachelor's degree or higher	1645	1.06	663	1.52	384	1.82	1047	1.21	598	1.78

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents include both biological and adoptive parents. Households that do not include a mother and/or father are not included in the relevant standard error calculations for highest level of education.

Households with a mother include those with a mother only and those with both a mother and father. Households with a father include those with a father only and those with both a mother and father. Any parent in the household includes children with one or two parents in the household (that is, mother only, father only, and mother and father) and the highest education level among them when there are two parents in the household. If there is only one parent (mother only or father only), it reflects that parent.

<sup>a</sup>Age as of September 1, 2014.

Table AA.5. Standard errors for parent employment status for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Parent employment status	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Employment status of mothers in household</b>										
Working full-time	1591	1.87	644	2.89	371	2.60	1015	2.21	576	2.22
Working part-time	1591	1.49	644	1.73	371	2.94	1015	1.81	576	2.08
Looking for work	1591	1.16	644	2.15	371	1.58	1015	1.52	576	1.64
Not in labor force	1591	1.95	644	3.36	371	3.11	1015	2.58	576	3.00
<b>Employment status of fathers in household</b>										
Working full-time	825	2.04	338	3.56	202	3.56	540	2.65	285	3.41
Working part-time	825	1.43	338	2.92	202	3.09	540	1.95	285	3.03
Looking for work	825	1.20	338	1.57	202	2.55	540	1.50	285	1.50
Not in labor force	825	1.40	338	1.96	202	2.67	540	1.77	285	2.00
<b>Employment status of the most employed of any parent in household</b>										
Working full-time	1640	2.03	660	2.58	384	3.16	1044	2.19	596	2.85
Working part-time	1640	1.46	660	1.68	384	2.69	1044	1.73	596	1.89
Looking for work	1640	0.95	660	1.77	384	1.62	1044	1.17	596	1.45
Not in labor force	1640	1.45	660	1.91	384	2.91	1044	2.05	596	1.90

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents include both biological and adoptive parents. Households that do not include a mother and/or father are not included in the relevant standard error calculations for employment status.

Households with a mother include those with a mother only and those with both a mother and father. Households with a father include those with a father only and those with both a mother and father. Any parent in the household includes children with one or two parents in the household (that is, mother only, father only, and mother and father) and the highest employment level among them when there are two parents in the household. If there is only one parent (mother only or father only), it reflects that parent.

<sup>a</sup>Age as of September 1, 2014.

Table AA.6. Standard errors for household income as a percentage of the federal poverty threshold for children still enrolled in Head Start in spring 2015, overall and by Head Start exposure: Fall 2014

Household income	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Percentage of the federal poverty threshold</b>										
Below 50 percent	1727	1.59	692	2.78	407	2.62	1099	2.04	628	2.40
50 to 100 percent	1727	1.42	692	2.24	407	3.38	1099	2.10	628	2.64
101 to 130 percent	1727	1.13	692	2.45	407	1.76	1099	1.59	628	1.66
131 to 185 percent	1727	0.73	692	0.96	407	1.97	1099	1.01	628	1.11
186 to 200 percent	1727	0.35	692	0.76	407	0.42	1099	0.52	628	0.17
201 percent or above	1727	1.48	692	1.42	407	3.09	1099	1.57	628	2.15

Source: Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

This table summarizes household income, and therefore should not be used to estimate eligibility for Head Start. Head Start qualifying criteria are based on family (not household) income, and there are other (non-income) ways to qualify for the program.

The federal poverty threshold is based on 2013 thresholds set by the United States Census Bureau. For example, the federal poverty threshold for a family of four in 2013 was \$23,834.

<sup>a</sup>Age as of September 1, 2014.

STANDARD ERRORS FOR CHILD CHARACTERISTICS AND FAMILY  
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SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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Table AA.7. Standard errors for parental depressive symptoms, overall and by Head Start exposure: Spring 2015

Parental depressive symptoms (categorical)	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Level of depressive symptoms<sup>b</sup></b>										
Not depressed	1600	2.09	646	2.86	374	3.62	1020	2.71	580	2.26
Mildly depressed	1600	1.38	646	1.95	374	2.86	1020	1.92	580	1.75
Moderately depressed	1600	1.22	646	1.84	374	1.53	1020	1.33	580	1.60
Severely depressed	1600	0.71	646	1.15	374	1.75	1020	0.79	580	1.38
<b>Parental depressive symptoms (continuous)</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>
<b>Mean level of depressive symptoms<sup>b</sup></b>	1600	0.24	646	0.29	374	0.46	1020	0.29	580	0.29

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parent depression reflects that of the respondent. In spring 2015, 87 percent of respondents were biological mothers, 7 percent were biological fathers, and the remainder were other household members.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Level of depressive symptoms is the total score on the Center for Epidemiological Studies Depression Scale (CES-D) short form (12 items on a 4-point scale for frequency in the past week). Total scores range from 0 to 36. Scores ranging from 0 to 4 are coded as not depressed; from 5 to 9 as mildly depressed; from 10 to 14 as moderately depressed; and 15 and above as severely depressed. The CES-D is a screening tool and not a diagnostic tool, but scores have been correlated with clinical diagnosis.

Table AA.8. Standard errors for frequency of reading to child, overall and by Head Start exposure: Spring 2015

Frequency of reading to child	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Number of times family member read to child in past week</b>										
Not at all	1626	0.19	654	0.33	379	0.35	1033	0.24	593	0.26
Once or twice	1626	1.56	654	2.06	379	2.20	1033	1.75	593	2.44
Three or more times, but not everyday	1626	1.60	654	2.46	379	2.15	1033	1.67	593	2.87
Everyday	1626	1.92	654	3.07	379	3.12	1033	2.38	593	2.36

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

Table AA.8a. Standard errors for change in frequency of reading to child: Fall 2014-Spring 2015

Frequency of reading to child	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
<b>Number of times family member read to child in past week</b>				
Not at all	1432	0.26	0.19	0.26
Once or twice	1432	1.40	1.57	1.24
Three or more times, but not everyday	1432	1.58	1.72	2.13
Everyday	1432	2.00	2.03	1.70

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.



Table AA.9. Standard errors for family members' activities with child in past week, overall and by Head Start exposure: Spring 2015

Activities with child	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
Told child a story	1628	0.79	655	1.16	378	1.23	1033	0.78	595	1.59
Taught child letters, words, or numbers	1629	0.52	655	0.66	379	0.86	1034	0.63	595	0.78
Taught child songs or music	1629	0.97	655	1.32	379	1.77	1034	1.06	595	1.74
Worked with child on arts and crafts	1627	1.60	654	2.31	378	3.43	1032	2.45	595	1.86
Played with toys or games indoors	1628	0.32	654	0.30	379	0.83	1033	0.36	595	0.60
Played a game, sport, or exercised together	1629	0.69	655	1.03	379	1.97	1034	0.79	595	0.99
Took child along on errands	1629	0.49	655	0.69	379	0.96	1034	0.64	595	0.89
Involved child in household chores	1629	0.95	655	1.60	379	1.35	1034	1.13	595	1.06
Talked about what happened in Head Start	1628	0.65	655	1.22	379	0.90	1034	0.74	594	1.06
Talked about TV programs or videos	1629	1.11	655	1.83	379	1.86	1034	1.29	595	1.68
Played counting games	1628	0.90	655	1.24	379	1.47	1034	1.04	594	1.47
Played a board game or a card game	1628	1.36	654	2.00	379	3.41	1033	1.54	595	1.79
Played with blocks	1627	1.81	655	3.32	379	2.63	1034	2.25	593	1.80
Counted different things	1625	0.71	652	1.30	378	1.27	1030	0.90	595	1.50
<b>Activities with child</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>
<b>Mean number of activities</b>	1629	0.06	655	0.10	379	0.11	1034	0.07	595	0.07

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

Table AA.9a. Standard errors for change in family members' activities with child in past week: Fall 2014-Spring 2015

Activities with child	Fall 2014		Spring 2015	Fall-Spring Change
	n	SE	SE	SE
Told child a story	1435	0.85	0.77	0.88
Taught child letters, words, or numbers	1435	0.48	0.51	0.77
Taught child songs or music	1435	1.08	0.96	0.99
Worked with child on arts and crafts	1433	1.81	1.72	2.13
Played with toys or games indoors	1433	0.38	0.30	0.45
Played a game, sport, or exercised together	1435	1.35	0.67	1.21
Took child along on errands	1435	0.68	0.44	0.60
Involved child in household chores	1435	0.84	0.97	0.79
Talked about what happened in Head Start	1433	0.69	0.70	0.78
Talked about TV programs or videos	1434	1.34	1.13	1.07
Played counting games	1434	0.89	0.89	1.15
Played a board game or a card game	1434	1.70	1.40	2.00
Played with blocks	1428	1.39	1.70	1.52
Counted different things	1430	0.92	0.64	1.10
<b>Activities with child</b>	<b>n</b>	<b>SE</b>	<b>SE</b>	<b>SE</b>
<b>Mean number of activities</b>	1435	0.06	0.06	0.05

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Table AA.10. Standard errors for household routines, overall and by Head Start exposure: Spring 2015

Household routines	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Child has regular bedtime</b>	1593	0.81	643	1.45	371	1.83	1014	1.01	579	1.77
<b>Number of days per week family eats dinner together</b>										
0-2	1627	0.60	653	1.02	379	0.95	1032	0.71	595	1.07
3-4	1627	1.39	653	1.65	379	2.39	1032	1.47	595	2.44
5-6	1627	1.34	653	2.08	379	2.56	1032	1.43	595	2.72
7	1627	1.57	653	2.41	379	2.89	1032	1.78	595	2.21
<b>Household routines</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>	<b>n</b>	<b>SE</b>
<b>Mean number of days per week family eats dinner together</b>	1627	0.06	653	0.08	379	0.09	1032	0.06	595	0.09

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents reported the total number of days per week the family eats dinner together. From these responses, we created a variable that categorizes the number of days into four categories, as presented in the table. This table presents mean number of days (from the continuous data).

<sup>a</sup>Age as of September 1, 2014.

Table AA.10a. Standard errors for change in household routines: Fall 2014-Spring 2015

		Fall 2014	Spring 2015	Fall-Spring Change
Household routines	n	SE	SE	SE
<b>Child has regular bedtime</b>	1369	1.32	1.00	1.22
<b>Number of days per week family eats dinner together</b>				
0-2	1428	0.78	0.62	0.98
3-4	1428	1.08	1.47	1.07
5-6	1428	1.60	1.45	2.16
7	1428	1.74	1.54	1.67
Household routines	n	SE	SE	SE
<b>Mean number of days per week family eats dinner together</b>	1428	0.06	0.06	0.04

Source: Fall 2014 and Spring 2015 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Parents reported the total number of days per week the family eats dinner together. From these responses, we created a variable that categorizes the number of days into four categories, as presented in the table. This table presents mean number of days (from the continuous data).

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SECTION BB

STANDARD ERRORS FOR CHILD COGNITIVE DEVELOPMENT DATA:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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Table BB.2. Standard errors for children's language of direct assessment, overall and by Head Start exposure: Spring 2015

Language of direct assessment	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Direct assessment language<sup>b</sup></b>										
Assessed in English	1835	2.99	733	4.53	431	3.96	1164	3.39	671	3.15
Primarily assessed in English	1835	2.03	733	2.51	431	2.52	1164	1.74	671	3.32
Primarily assessed in Spanish	1835	1.48	733	2.62	431	2.05	1164	2.13	671	1.30
Assessed in English, shortened assessment battery	1835	0.05	733	0.07	431	0.18	1164	0.07	671	0.00

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.



Table BB.2a. Standard errors for change in children's language of direct assessment: Fall 2014-Spring 2015

Language of direct assessment	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
<b>Direct assessment language<sup>a</sup></b>				
Assessed in English	1769	2.94	2.91	0.20
Primarily assessed in English	1769	1.47	2.02	0.85
Primarily assessed in Spanish	1769	2.03	1.41	0.85
Assessed in English, shortened assessment battery	1769	0.21	0.05	0.20

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

Table BB.3. Standard errors of children's language of direct assessment, by child's primary home language<sup>a</sup>: Spring 2015

Language of direct assessment	Child's primary home language is English		Child's primary home language is not English	
	n	SE	n	SE
<b>Direct assessment language<sup>b</sup></b>				
Assessed in English	1346	0.71	488	2.98
Primarily assessed in English	1346	0.50	488	3.37
Primarily assessed in Spanish	1346	0.35	488	3.78
Assessed in English, shortened assessment battery	1346	0.00	488	0.18

Source: Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Language of direct assessment is based on parent report of the language the child uses most often at home and the child's performance on the screener.

Table BB.4. Standard errors for children’s English receptive vocabulary standard scores, overall and by child and family characteristics<sup>a</sup>: Spring 2015

Child and family characteristics	English receptive vocabulary (PPVT-4 standard score)	
	n	SE
<b>All children</b>	1624	0.86
<b>Head Start exposure</b>		
All newly entering children	996	0.96
3-year-olds <sup>b</sup>	600	1.15
4-year-olds <sup>b</sup>	396	1.35
All returning children	628	1.01
<b>Primary home language other than English<sup>c</sup></b>		
Yes	371	0.96
No	1252	0.69

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the performance of all children on the PPVT-4 assessment, regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table BB.4a. Standard errors for change in children's English receptive vocabulary standard scores, overall and by child and family characteristics<sup>a</sup>: Fall 2014-Spring 2015

Child and family characteristics	English receptive vocabulary (PPVT-4 standard score)			
	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
<b>All children</b>	1629	0.81	0.86	0.47
<b>Head Start exposure</b>				
All newly entering children	1001	0.97	0.97	0.49
3-year-olds <sup>b</sup>	605	1.22	1.16	0.60
4-year-olds <sup>b</sup>	396	1.26	1.35	0.61
All returning children	628	0.90	1.01	0.66
<b>Primary home language other than English<sup>c</sup></b>				
Yes	374	0.90	0.95	0.64
No	1254	0.66	0.69	0.53

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the performance of all children on the PPVT-4 assessment, regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table BB.5. Standard errors for children’s English expressive vocabulary standard scores, overall and by child and family characteristics for children who most often use an English or Other (non-Spanish) language at home<sup>a</sup>: Spring 2015

Child and family characteristics	English expressive vocabulary (EOWPVT-4 standard score)	
	n	SE
<b>All children</b>	1394	0.84
<b>Head Start exposure</b>		
All newly entering children	900	0.90
3-year-olds <sup>b</sup>	553	1.21
4-year-olds <sup>b</sup>	347	1.34
All returning children	494	1.24
<b>Primary home language other than English<sup>c</sup></b>		
Yes	96	1.94
No	1297	0.75

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual’s performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4 performance of all children who most often use an English or Other (non-Spanish) language at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent’s report of whether a language other than English is spoken in the child’s home and whether the child’s parent/guardian primarily uses this language when speaking with the child.

Table BB.5a. Standard errors for change in children's English expressive vocabulary standard scores, overall and by child and family characteristics for children who most often use an English or Other (non-Spanish) language at home<sup>a</sup>: Fall 2014-Spring 2015

Child and family characteristics	n	English expressive vocabulary (EOWPVT-4 standard score)		
		Fall 2014 SE	Spring 2015 SE	Fall-Spring Change SE
<b>All children</b>	1347	0.85	0.88	0.50
<b>Head Start exposure</b>				
All newly entering children	872	0.98	1.0	0.54
3-year-olds <sup>b</sup>	533	1.38	1.4	0.65
4-year-olds <sup>b</sup>	339	1.20	1.4	0.86
All returning children	475	0.99	1.3	0.81
<b>Primary home language other than English<sup>c</sup></b>				
Yes	92	1.74	1.96	1.64
No	1254	0.76	0.78	0.51

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to English-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4 performance of all children who most often use an English or Other (non-Spanish) language at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>Age as of September 1, 2014.

<sup>c</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table BB.6. Standard errors for children’s Spanish receptive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Spring 2015<sup>b</sup>

Child and family characteristics	Spanish receptive vocabulary (ROWPVT-4: SBE standard score)	
	n	SE
<b>All children</b>	440	0.84
<b>Head Start exposure</b>		
All newly entering children	263	0.80
3-year-olds <sup>c</sup>	179	1.04
4-year-olds <sup>c</sup>	84	1.14
All returning children	177	1.21

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual’s performance relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the ROWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only.

<sup>c</sup>Age as of September 1, 2014.

Table BB.6a. Standard errors for change in children's Spanish receptive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Fall 2014-Spring 2015<sup>b</sup>

Child and family characteristics	Spanish receptive vocabulary (ROWPVT-4: SBE standard score)			
	n	Fall 2014 SE	Spring 2015 SE	Fall-Spring Change SE
<b>All children</b>	402	0.94	0.82	0.57
<b>Head Start exposure</b>				
All newly entering children	242	1.23	0.83	0.80
3-year-olds <sup>c</sup>	161	1.71	0.98	1.00
4-year-olds <sup>c</sup>	81	1.32	1.29	1.31
All returning children	160	1.18	1.33	0.94

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the ROWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only.

<sup>c</sup>Age as of September 1, 2014.



Table BB.7. Standard errors for children’s conceptual expressive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Spring 2015<sup>b</sup>

Child and family characteristics	Conceptual expressive vocabulary (EOWPVT-4: SBE standard score)	
	n	SE
<b>All children</b>	441	0.94
<b>Head Start exposure</b>		
All newly entering children	264	0.79
3-year-olds <sup>c</sup>	180	0.92
4-year-olds <sup>c</sup>	84	1.17
All returning children	177	1.97

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect of an individual's performance relative to Spanish-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

<sup>c</sup>Age as of September 1, 2014.

Table BB.7a. Standard errors for change in children's conceptual expressive vocabulary standard scores, overall and by Head Start exposure for children who most often use Spanish at home<sup>a</sup>: Fall 2014-Spring 2015<sup>b</sup>

Child and family characteristics	Conceptual expressive vocabulary (EOWPVT-4: SBE standard score)			
	n	Fall 2014 SE	Spring 2015 SE	Fall-Spring Change SE
<b>All children</b>	405	0.96	0.93	0.89
<b>Head Start exposure</b>				
All newly entering children	244	1.09	0.73	0.97
3-year-olds <sup>c</sup>	163	1.50	0.87	1.23
4-year-olds <sup>c</sup>	81	0.70	1.19	0.96
All returning children	161	1.81	2.07	1.23

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores reflect an individual's performance to Spanish-speaking children of the same age nationally. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>Data in this table reflect the EOWPVT-4: SBE performance of all children who most often use Spanish at home (based on parent report), regardless of language of direct assessment.

<sup>b</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

<sup>c</sup>Age as of September 1, 2014.

Table BB.8. Standard errors for children's language, literacy, and math standard and IRT scores for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	n	SE
<b>Constructs assessed for all children</b>		
Receptive vocabulary (PPVT-4 standard score)	1585	0.81
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1699	0.68
Early writing (WJ III NU: Spelling standard score)	1704	0.77
Early math (WJ III NU: Applied Problems standard score)	1708	0.45
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	1047	0.14
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	1047	0.33
Early math (ECLS-B math IRT score)	1703	0.14
Number and shape knowledge (ECLS-B number/shape proficiency probability score <sup>a</sup> )	1703	0.01
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1703	0.32
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>b</sup></b>		
Expressive vocabulary (EOWPVT-4 standard score <sup>c</sup> )	1392	0.84
<b>Constructs assessed for all children who most often use Spanish at home<sup>b</sup></b>		
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>d</sup> )	317	0.83
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	318	1.02

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time.

<sup>a</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>b</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>c</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>d</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

Table BB.8a. Standard errors for change in children's language, literacy, and math standard and IRT scores for assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
<b>Constructs assessed for all children</b>				
Receptive vocabulary (PPVT-4 standard score)	1494	0.65	0.73	0.49
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1510	0.50	0.69	0.43
Early writing (WJ III NU: Spelling standard score)	1523	0.78	0.82	0.63
Early math (WJ III NU: Applied Problems standard score)	1524	0.52	0.44	0.30
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	437	0.06	0.21	0.18
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	437	0.17	0.43	0.39
Early math (ECLS-B math IRT score)	1516	0.13	0.13	0.06
Number and shape knowledge (ECLS-B number/shape proficiency probability score <sup>a</sup> )	1516	0.01	0.01	0.01
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1516	0.29	0.30	0.13
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>b</sup></b>				
Expressive vocabulary (EOWPVT-4 standard score <sup>c</sup> )	1337	0.80	0.84	0.51
<b>Constructs assessed for all children who most often use Spanish at home<sup>b</sup></b>				
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>d</sup> )	188	1.07	1.14	0.90
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	189	1.07	1.24	1.25

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time.

<sup>a</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the beginning or end of the program year). These scores can take on any value from zero to one.

<sup>b</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>c</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>d</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table BB.9. Standard errors for children's language, literacy, and math standard and IRT scores, by Head Start exposure for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	Newly entering children									
	All children		3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE	n	SE
<b>Constructs assessed for all children</b>										
Receptive vocabulary (PPVT-4 standard score)	1585	0.81	580	1.06	389	1.26	969	0.87	616	0.99
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1699	0.68	653	0.60	406	1.00	1059	0.63	640	1.15
Early writing (WJ III NU: Spelling standard score)	1704	0.77	652	0.96	407	1.17	1059	0.82	645	0.98
Early math (WJ III NU: Applied Problems standard score)	1708	0.45	655	0.91	407	0.83	1062	0.61	646	0.52
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	1047	0.14	292	0.08	275	0.22	567	0.12	480	0.22
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	1047	0.33	292	0.21	275	0.48	567	0.28	480	0.50
Early math (ECLS-B math IRT score)	1703	0.14	652	0.14	406	0.24	1058	0.17	645	0.13
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	1703	0.01	652	0.02	406	0.02	1058	0.02	645	0.01
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1703	0.32	652	0.35	406	0.54	1058	0.41	645	0.29
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>										
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1392	0.84	552	1.21	346	1.31	898	0.89	494	1.24
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>										
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	317	0.83	104	1.02	61	1.35	165	0.82	152	1.18
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	318	1.02	105	1.43	61	1.85	166	1.29	152	1.24

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted.

These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

**Table BB.9** *(continued)*

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table BB.9a. Standard errors for change in children’s language, literacy, and math standard and IRT scores, by Head Start exposure for children assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>				4-year-olds <sup>a</sup>				All newly entering children				All returning children			
		Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change
	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE
<b>Constructs assessed for all children</b>																
Receptive vocabulary (PPVT-4 standard score)	539	1.04	1.04	0.66	373	1.03	1.12	0.64	912	0.77	0.81	0.52	582	0.77	0.93	0.68
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	562	0.52	0.55	0.65	373	0.75	1.08	0.75	935	0.41	0.63	0.52	575	0.90	1.17	0.50
Early writing (WJ III NU: Spelling standard score)	567	1.11	1.08	1.01	376	1.38	1.24	0.90	943	0.93	0.90	0.86	580	0.82	1.05	0.77
Early math (WJ III NU: Applied Problems standard score)	568	0.93	0.93	0.58	376	1.06	0.85	0.57	944	0.69	0.60	0.44	580	0.72	0.59	0.54
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	63	0.11	0.24	0.25	113	0.14	0.30	0.24	176	0.10	0.22	0.19	261	0.08	0.26	0.23
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	63	0.38	0.55	0.65	113	0.40	0.61	0.52	176	0.29	0.48	0.45	261	0.21	0.51	0.43
Early math (ECLS-B math IRT score)	561	0.12	0.14	0.08	373	0.27	0.24	0.12	934	0.17	0.17	0.07	582	0.15	0.13	0.10
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	561	0.01	0.02	0.01	373	0.03	0.02	0.01	934	0.02	0.02	0.01	582	0.01	0.01	0.01
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	561	0.31	0.35	0.19	373	0.59	0.55	0.26	934	0.40	0.39	0.16	582	0.33	0.29	0.23
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>																
Expressive vocabulary	528	1.32	1.33	0.62	336	1.10	1.28	0.88	864	0.91	0.96	0.53	473	0.97	1.30	0.81

Table BB.9a (continued)

Constructs (measures)	Newly entering children															
	3-year-olds <sup>a</sup>				4-year-olds <sup>a</sup>				All newly entering children				All returning children			
	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	
	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE
(EOWPVT-4 standard score <sup>d</sup> )																
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>																
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	44	1.60	1.86	2.13	40	2.38	2.25	2.21	84	1.46	1.24	1.49	104	1.14	1.54	1.19
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	44	2.97	1.93	1.78	40	1.41	2.11	1.23	84	1.84	1.64	1.23	105	1.26	1.48	1.73

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.



Table BB.10. Standard errors for children's language, literacy, and math standard and IRT scores, by child's primary home language<sup>a</sup> for children assessed in English or primarily in English: Spring 2015

Constructs (measures)	Child's primary home language is English		Child's primary home language is not English	
	n	SE	n	SE
<b>Constructs assessed for all children</b>				
Receptive vocabulary (PPVT-4 standard score)	1250	0.69	334	0.87
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1323	0.67	375	1.32
Early writing (WJ III NU: Spelling standard score)	1329	0.89	374	1.24
Early math (WJ III NU: Applied Problems standard score)	1332	0.51	375	0.77
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	823	0.16	223	0.14
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	823	0.39	223	0.35
Early math (ECLS-B math IRT score)	1328	0.16	374	0.23
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	1328	0.01	374	0.03
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1328	0.37	374	0.53
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>				
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1297	0.75	94	1.95
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>				
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	n.a.	n.a.	n.a.	n.a.
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	n.a.	n.a.	n.a.	n.a.

Source: Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted.

These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time.

n.a. = not applicable. Measure only administered to children who most often use Spanish at home.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

**Table BB.10** *(continued)*

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table BB.10a. Standard errors for change in children’s language, literacy, and math standard and IRT scores, by child’s primary home language<sup>a</sup> for children assessed in English or primarily in English: Fall 2014-Spring 2015

Constructs (measures)	Child's primary home language is English				Child's primary home language is not English			
		Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change
	n	SE	SE	SE	n	SE	SE	SE
<b>Constructs assessed for all children</b>								
Receptive vocabulary (PPVT-4 standard score)	1246	0.65	0.69	0.53	247	0.79	0.97	0.77
Letter-word knowledge (WJ III NU: Letter-Word Identification standard score)	1261	0.50	0.68	0.44	248	1.05	1.38	0.86
Early writing (WJ III NU: Spelling standard score)	1274	0.83	0.92	0.69	249	1.29	1.41	1.31
Early math (WJ III NU: Applied Problems standard score)	1274	0.59	0.52	0.31	249	1.00	0.82	0.75
Letter-sounds knowledge (ECLS-B letter-sounds IRT score)	358	0.06	0.23	0.21	79	0.13	0.26	0.16
Letter-sounds and letter-word knowledge (Combined ECLS-B letter-sounds/WJ III Letter-Word Identification IRT score)	358	0.19	0.49	0.44	79	0.38	0.53	0.31
Early math (ECLS-B math IRT score)	1264	0.15	0.15	0.06	251	0.22	0.24	0.12
Number and shape knowledge (ECLS-B number/shape IRT proficiency probability score <sup>b</sup> )	1264	0.01	0.01	0.01	251	0.02	0.03	0.01
Early math (Combined ECLS-B/WJ III Applied Problems IRT score)	1264	0.34	0.35	0.13	251	0.52	0.55	0.27
<b>Constructs assessed for all children who most often use an English or Other (non-Spanish) language at home<sup>c</sup></b>								
Expressive vocabulary (EOWPVT-4 standard score <sup>d</sup> )	1254	0.76	0.78	0.51	82	1.89	2.18	1.73
<b>Constructs assessed for all children who most often use Spanish at home<sup>c</sup></b>								
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>e</sup> )	n.a.	n.a.	n.a.	n.a.	164	1.08	1.23	0.97
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>d</sup> )	n.a.	n.a.	n.a.	n.a.	165	1.06	1.30	1.37

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment and Fall 2014 Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to English-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15. IRT-based scores provide information on children's absolute performance at a specific point in time.

**Table BB.10a** *(continued)*

n.a. = not applicable. Measure only administered to children who most often use Spanish at home.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>Proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percentage of the population who have "mastered" this skill or skill set (for example,  $0.40 \times 100 = 40$  percent of Head Start children are able to demonstrate these skills at the beginning or end of the program year). These scores can take on any value from zero to one.

<sup>c</sup>We use parent-reported data to identify the language the child uses most often at home.

<sup>d</sup>The EOWPVT-4 standard scores provide a measure of children's English expressive vocabulary relative to English-speaking children of the same age nationally. The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The EOWPVT-4: SBE standard scores reflect children's expressive vocabulary skills relative to Spanish-speaking children of the same age nationally.

<sup>e</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

Table BB.11. Standard errors for children's language, literacy, and math standard scores for children primarily assessed in Spanish: Spring 2015

Constructs (measures)	n	SE
Receptive vocabulary (PPVT-4 standard score <sup>a</sup> )	39	1.28
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>b</sup> )	123	1.73
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	123	1.98
Letter-word knowledge (WM III NU: Letter-Word Identification standard score)	97	2.76
Early writing (WM III NU: Spelling standard score)	123	1.79
Early math (WM III NU: Applied Problems standard score)	122	1.63

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to Spanish-speaking children of the same age nationally unless otherwise noted.

These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>The PPVT-4 standard scores reflect children's English vocabulary skills relative to English-speaking children of the same age nationally.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally with a Spanish home language who were allowed responses and/or prompts in Spanish and English. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

<sup>c</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish. The publisher provides a range of <55 to >145, but in FACES 2014 we assign scores outside this range as 45 or 155, respectively.

Table BB.11a. Standard errors for change in children’s language, literacy, and math standard scores for children primarily assessed in Spanish: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
Receptive vocabulary (PPVT-4 standard score <sup>a</sup> )	40	1.81	1.49	1.52
Spanish receptive vocabulary (ROWPVT-4: SBE standard score <sup>b</sup> )	113	1.77	1.86	1.27
Conceptual expressive vocabulary (EOWPVT-4: SBE standard score <sup>c</sup> )	114	1.55	2.03	1.76
Letter-word knowledge (WM III NU: Letter-Word Identification standard score)	60	2.01	3.39	3.23
Early writing (WM III NU: Spelling standard score)	112	1.41	1.80	1.84
Early math (WM III NU: Applied Problems standard score)	105	1.78	1.67	1.70

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the scores.

Standard scores in this table reflect an individual's performance relative to Spanish-speaking children of the same age nationally unless otherwise noted. These scores have a mean of 100 and a standard deviation of 15.

<sup>a</sup>The PPVT-4 standard scores reflect children’s English vocabulary skills relative to English-speaking children of the same age nationally.

<sup>b</sup>In FACES, the ROWPVT-4: SBE is administered in Spanish, with prompts allowed in Spanish only. The ROWPVT-4: SBE standard scores reflect children's receptive vocabulary skills relative to Spanish-speaking children of the same age nationally who were allowed responses and/or prompts in Spanish and English.

<sup>c</sup>The EOWPVT-4: SBE is administered conceptually, allowing responses and prompts in both English and Spanish.

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SECTION CC

STANDARD ERRORS FOR CHILD SOCIAL-EMOTIONAL DEVELOPMENT DATA:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE



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Table CC.2. Standard errors for children's executive function, social skills, problem behaviors, and approaches to learning scores: Spring 2015

Constructs (measures)	n	SE
<b>Direct child assessment</b>		
Executive function (pencil tapping <sup>a</sup> )	1530	1.31
<b>Teacher child report</b>		
Social skills <sup>b</sup>	1845	0.26
Problem behaviors total score <sup>b</sup>	1848	0.19
Aggressive behavior	1848	0.08
Hyperactive behavior	1848	0.06
Withdrawn behavior	1848	0.07
Approaches to learning (ECLS-K)	1848	0.03
<b>Assessor rating during direct assessment</b>		
Cognitive/social behavior (Leiter-R)		
Total score	1828	0.81
Attention	1828	0.35
Organization/impulse control	1828	0.28
Activity level	1828	0.13
Sociability	1828	0.11
Total standard score <sup>c</sup>	1828	0.89

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, and Assessor Rating..

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>In the Pencil Tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>b</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>c</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table CC.2a. Standard errors for change in children's executive function, social skills, problem behaviors, and approaches to learning scores: Fall 2014-Spring 2015

Constructs (measures)	n	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE
<b>Direct child assessment</b>				
Executive function (pencil tapping <sup>a</sup> )	1102	1.69	1.26	1.20
<b>Teacher child report</b>				
Social skills <sup>b</sup>	1818	0.21	0.25	0.27
Problem behaviors total score <sup>b</sup>	1827	0.15	0.19	0.13
Aggressive behavior	1827	0.07	0.08	0.06
Hyperactive behavior	1822	0.05	0.05	0.04
Withdrawn behavior	1827	0.06	0.07	0.07
Approaches to learning (ECLS-K)	1826	0.03	0.03	0.03
<b>Assessor rating during direct assessment</b>				
Cognitive/social behavior (Leiter-R)				
Total score	1739	1.02	0.80	1.26
Attention	1740	0.42	0.34	0.52
Organization/impulse control	1739	0.32	0.28	0.40
Activity level	1739	0.18	0.13	0.21
Sociability	1739	0.13	0.11	0.17
Total standard score <sup>c</sup>	1739	1.05	0.88	1.29

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>In the Pencil Tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>b</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>c</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table CC.3. Standard errors for children's executive function, social skills, problem behaviors, and approaches to learning scores, by Head Start exposure: Spring 2015

Constructs (measures)	Newly entering children							
	3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE
<b>Direct child assessment</b>								
Executive function (pencil tapping <sup>b</sup> )	438	2.1	429	2.84	867	1.87	663	1.51
<b>Teacher child report</b>								
Social skills <sup>c</sup>	735	0.32	420	0.42	1155	0.29	690	0.32
Problem behaviors total score <sup>c</sup>	735	0.26	423	0.26	1158	0.22	690	0.25
Aggressive behavior	735	0.11	423	0.11	1158	0.08	690	0.12
Hyperactive behavior	735	0.08	423	0.10	1158	0.07	690	0.06
Withdrawn behavior	735	0.09	423	0.12	1158	0.08	690	0.10
Approaches to learning (ECLS-K)	735	0.04	423	0.06	1158	0.04	690	0.04
<b>Assessor rating during direct assessment</b>								
Cognitive/social behavior (Leiter-R)								
Total score	729	1.06	429	1.36	1158	0.96	670	0.88
Attention	729	0.47	429	0.59	1158	0.42	670	0.36
Organization/impulse control	729	0.39	429	0.43	1158	0.33	670	0.29
Activity level	729	0.16	429	0.22	1158	0.15	670	0.17
Sociability	729	0.13	429	0.18	1158	0.12	670	0.14
Total standard score <sup>d</sup>	729	1.07	429	1.48	1158	1.02	670	0.90

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table CC.3a. Standard errors for change in children's executive function, social skills, problem behaviors, and approaches to learning scores, by Head Start exposure: Fall 2014-Spring 2015

Constructs (measures)	Newly entering children												All returning children			
	3-year-olds <sup>a</sup>			4-year-olds <sup>a</sup>			All newly entering children									
	n	SE	SE	Fall-Spring Change	n	SE	SE	Fall-Spring Change	n	SE	SE	Fall-Spring Change	n	SE	SE	Fall-Spring Change
<b>Direct child assessment</b>																
Executive function (pencil tapping <sup>b</sup> )	102	3.72	5.08	3.93	410	3.16	2.89	1.84	512	2.68	2.35	1.56	590	1.60	1.61	1.47
<b>Teacher child report</b>																
Social skills <sup>c</sup>	725	0.25	0.33	0.29	414	0.32	0.43	0.35	1139	0.23	0.29	0.26	679	0.30	0.31	0.37
Problem behaviors total score <sup>e</sup>	727	0.19	0.26	0.22	420	0.25	0.26	0.16	1147	0.18	0.22	0.17	680	0.25	0.24	0.17
Aggressive behavior	727	0.07	0.11	0.10	420	0.10	0.11	0.05	1147	0.07	0.08	0.07	680	0.11	0.12	0.07
Hyperactive behavior	724	0.07	0.08	0.06	419	0.09	0.10	0.09	1143	0.06	0.07	0.06	679	0.08	0.06	0.07
Withdrawn behavior	727	0.09	0.09	0.12	420	0.11	0.12	0.10	1147	0.08	0.08	0.09	680	0.10	0.10	0.07
Approaches to learning (ECLS-K)	727	0.04	0.05	0.03	419	0.06	0.06	0.04	1146	0.03	0.04	0.03	680	0.05	0.04	0.04
<b>Assessor rating during direct assessment</b>																
Cognitive/social behavior (Leiter-R)																
Total score	692	1.14	1.06	1.50	413	1.78	1.37	2.08	1105	1.17	0.97	1.48	634	1.22	0.91	1.40
Attention	692	0.45	0.46	0.62	413	0.72	0.59	0.86	1105	0.47	0.41	0.61	635	0.52	0.37	0.58
Organization/impulse control	692	0.39	0.39	0.53	413	0.55	0.43	0.63	1105	0.38	0.34	0.49	634	0.37	0.29	0.42
Activity level	692	0.21	0.16	0.26	413	0.32	0.23	0.36	1105	0.21	0.15	0.25	634	0.21	0.17	0.24
Sociability	692	0.16	0.13	0.17	413	0.22	0.18	0.30	1105	0.15	0.12	0.18	634	0.16	0.14	0.22
Total standard score <sup>d</sup>	692	1.18	1.03	1.52	413	1.80	1.50	2.21	1105	1.19	1.02	1.53	634	1.25	0.94	1.37

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Ratings, and Fall 2014 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

**Table CC.3a** (*continued*)

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table CC.4. Standard errors for children's executive function, social skills, problem behaviors, and approaches to learning scores, by child's primary home language<sup>a</sup>: Spring 2015

Constructs (measures)	Child's primary home language is English		Child's primary home language is not English	
	n	SE	n	SE
<b>Direct child assessment</b>				
Executive function (pencil tapping <sup>b</sup> )	1126	1.47	403	2.70
<b>Teacher child report</b>				
Social skills <sup>c</sup>	1362	0.25	482	0.37
Problem behaviors total score <sup>c</sup>	1364	0.21	483	0.23
Aggressive behavior	1364	0.09	483	0.09
Hyperactive behavior	1364	0.06	483	0.09
Withdrawn behavior	1364	0.08	483	0.09
Approaches to learning (ECLS-K)	1364	0.04	483	0.04
<b>Assessor rating during direct assessment</b>				
Cognitive/social behavior (Leiter-R)				
Total score	1340	0.88	487	1.26
Attention	1340	0.36	487	0.57
Organization/impulse control	1340	0.30	487	0.44
Activity level	1340	0.14	487	0.21
Sociability	1340	0.13	487	0.13
Total standard score <sup>d</sup>	1340	0.97	487	1.31

Source: Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Ratings, and Fall 2014 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.

Table CC.4a. Standard errors for change in children's executive function, social skills, problem behaviors, and approaches to learning scores, by child's primary home language<sup>a</sup>: Fall 2014-Spring 2015

Constructs (measures)	Child's primary home language is English				Child's primary home language is not English			
		Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change
	n	SE	SE	SE	n	SE	SE	SE
<b>Direct child assessment</b>								
Executive function (pencil tapping <sup>b</sup> )	813	2.11	1.48	1.35	289	2.51	2.97	2.79
<b>Teacher child report</b>								
Social skills <sup>c</sup>	1345	0.22	0.25	0.26	472	0.31	0.37	0.41
Problem behaviors total score <sup>c</sup>	1351	0.17	0.21	0.14	475	0.26	0.23	0.18
Aggressive behavior	1351	0.07	0.09	0.06	475	0.11	0.10	0.08
Hyperactive behavior	1346	0.06	0.06	0.04	475	0.08	0.09	0.06
Withdrawn behavior	1351	0.07	0.08	0.08	475	0.10	0.09	0.10
Approaches to learning (ECLS-K)	1350	0.03	0.04	0.03	475	0.06	0.04	0.06
<b>Assessor rating during direct assessment</b>								
Cognitive/social behavior (Leiter-R)								
Total score	1285	1.22	0.87	1.31	453	1.25	1.23	1.84
Attention	1285	0.50	0.36	0.53	454	0.53	0.55	0.78
Organization/impulse control	1285	0.38	0.30	0.41	453	0.44	0.44	0.61
Activity level	1285	0.22	0.14	0.23	453	0.16	0.21	0.28
Sociability	1285	0.15	0.12	0.19	453	0.17	0.13	0.24
Total standard score <sup>d</sup>	1285	1.27	0.96	1.34	453	1.16	1.26	1.81

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Teacher Child Report, Assessor Rating, and Fall 2014 FACES Parent Survey.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs or scores.

<sup>a</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

<sup>b</sup>In the pencil tapping task, children are asked to inhibit the natural response to imitate the adult assessor exactly (or to tap repeatedly) and instead to keep in mind that the rule is to do the opposite of what the assessor does. Reported scores reflect the percentage of times the child tapped correctly. They can take on any value from 0 to 100, with higher scores indicating better skills on the task. The task is only administered to children age 4 and older at the time of the direct assessment.

<sup>c</sup>Social skill and problem behavior items are drawn from the Behavior Problems Index, the Personal Maturity Scale, and the Social Skills Rating Scale.

<sup>d</sup>This standard score has a mean of 100 and a standard deviation of 15.



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SECTION DD

STANDARD ERRORS FOR CHILD HEALTH AND PHYSICAL DEVELOPMENT DATA:  
SPRING 2015 AND FALL 2014-SPRING 2015 CHANGE

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Table DD.1. Standard errors for teacher report of children's disability status, impairment type, and IEP or IFSP status: Spring 2015

Report of disability	n	SE
<b>Children with disabilities</b>	1844	1.57
<b>Type of impairment among children with disabilities</b>		
Speech or language impairment	247	3.68
Cognitive impairment <sup>a</sup>	247	5.19
Behavioral/emotional impairment <sup>b</sup>	247	3.64
Sensory impairment <sup>c</sup>	247	2.49
Physical impairment <sup>d</sup>	247	1.96
<b>Children with disabilities that have multiple impairments</b>	247	5.03
<b>Children with disabilities that have IEP or IFSP</b>	232	3.20

Source: Spring 2015 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and if so, to indicate the specific need or disability.

<sup>a</sup>Cognitive impairment includes: developmental delay, mental retardation, and autism or pervasive developmental delay.

<sup>b</sup>Behavioral/emotional impairment includes: behavior problems, hyperactivity, and attention deficit.

<sup>c</sup>Sensory impairment includes: deafness, hearing impairment/hard of hearing, blindness, and vision impairment.

<sup>d</sup>Physical impairment includes: motor impairment.

Table DD.2. Standard errors for teacher report of children's disability status, impairment type, and IEP or IFSP status, by Head Start exposure: Spring 2015

Report of disability	Newly entering children							
	3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE
<b>Children with disabilities</b>	733	2.11	422	2.43	1155	1.99	689	1.33
<b>Type of impairment among children with disabilities</b>								
Speech or language impairment	115	5.19	54	6.36	169	4.07	78	6.45
Cognitive impairment <sup>b</sup>	115	9.45	54	8.49	169	6.51	78	5.33
Behavioral/emotional impairment <sup>c</sup>	115	6.24	54	7.15	169	3.95	78	7.71
Sensory impairment <sup>d</sup>	115	4.48	54	5.42	169	3.16	78	2.16
Physical impairment <sup>e</sup>	115	4.05	54	1.48	169	2.77	78	0.71
<b>Children with disabilities that have multiple impairments</b>	115	9.80	54	8.15	169	6.55	78	4.18
<b>Children with disabilities that have IEP or IFSP</b>	109	4.25	46	7.29	155	3.82	77	5.42

Source: Spring 2015 FACES Teacher Child Report, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and if so, to indicate the specific need or disability.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>Cognitive impairment includes: developmental delay, mental retardation, and autism or pervasive developmental delay.

<sup>c</sup>Behavioral/emotional impairment includes: behavior problems, hyperactivity, and attention deficit.

<sup>d</sup>Sensory impairment includes: deafness, hearing impairment/hard of hearing, blindness, and vision impairment.

<sup>e</sup>Physical impairment includes: motor impairment.

Table DD.3. Standard errors for parent-reported child health status, overall and by child and family characteristics: Spring 2015

Child and family characteristics	n	Excellent/ very good	Good	Fair/poor
		SE	SE	SE
<b>All children</b>	1624	1.02	0.91	0.49
<b>Head Start exposure</b>				
All newly entering children	1030	1.31	1.30	0.57
3-year-olds <sup>a</sup>	652	1.44	1.36	0.94
4-year-olds <sup>a</sup>	378	2.27	2.16	0.61
All returning children	594	1.56	1.18	0.67
<b>Primary home language other than English<sup>b</sup></b>				
Yes	447	2.10	2.11	1.16
No	1176	1.03	1.01	0.59

Source: Fall 2014 and Spring 2015 FACES Parent Survey, Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table DD.3a. Standard errors for change in parent-reported child health status, overall and by child and family characteristics: Fall 2014-Spring 2015

Child and family characteristics	n	Excellent/very good			Good			Fair/poor		
		Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change	Fall 2014	Spring 2015	Fall-Spring Change
		SE	SE	SE	SE	SE	SE	SE	SE	SE
<b>All children</b>	1429	1.45	1.13	1.09	1.38	1.00	1.06	0.57	0.53	0.50
<b>Head Start exposure</b>										
All newly entering children	912	1.61	1.53	1.26	1.62	1.48	1.38	0.67	0.62	0.64
3-year-olds <sup>a</sup>	571	2.11	1.65	1.37	2.06	1.59	1.57	1.06	1.01	0.94
4-year-olds <sup>a</sup>	341	2.32	2.50	2.20	2.01	2.35	2.32	0.91	0.67	0.95
All returning children	517	2.18	1.59	1.94	1.88	1.15	1.72	0.81	0.72	0.72
<b>Primary home language other than English<sup>b</sup></b>										
Yes	386	3.44	2.47	3.20	2.80	2.41	3.28	1.19	1.27	1.26
No	1043	0.96	1.04	1.19	1.03	1.05	1.17	0.62	0.63	0.45

Source: Fall 2014 and Spring 2015 FACES Parent Survey and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>This characteristic is based on the parent's report of whether a language other than English is spoken in the child's home and whether the child's parent/guardian primarily uses this language when speaking with the child.

Table DD.4. Standard errors for children's height and weight: Spring 2015

Height and weight measures	n	SE
Mean height (in inches)	1786	0.11
Mean weight (in pounds)	1786	0.30
Mean Body Mass Index (BMI)	1786	0.06
Height and weight measures	n	SE
<b>BMI categories<sup>a</sup></b>		
Child is underweight	1786	0.41
Child is normal weight	1786	1.65
Child is overweight	1786	1.40
Child is obese	1786	1.08

Source: Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.



Table DD.4a. Standard errors for change in children's height and weight: Fall 2014-Spring 2015

		Fall 2014	Spring 2015	Fall-Spring Change
Height and weight measures	n	SE	SE	SE
Mean height (in inches)	1660	0.11	0.11	0.03
Mean weight (in pounds)	1659	0.24	0.31	0.14
Mean Body Mass Index (BMI)	1659	0.05	0.07	0.05
Height and weight measures	n	SE	SE	SE
<b>BMI categories<sup>a</sup></b>				
Child is underweight	1659	0.37	0.42	0.56
Child is normal weight	1659	1.41	1.73	1.41
Child is overweight	1659	1.11	1.46	1.35
Child is obese	1659	1.14	1.06	0.91

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n column in this table includes unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

Table DD.5. Standard errors for children's height and weight, by Head Start exposure: Spring 2015

Height and weight measures	Newly entering children							
	3-year-olds <sup>a</sup>		4-year-olds <sup>a</sup>		All newly entering children		All returning children	
	n	SE	n	SE	n	SE	n	SE
Mean height (in inches)	712	0.10	422	0.10	1134	0.13	652	0.10
Mean weight (in pounds)	712	0.40	422	0.32	1134	0.36	652	0.35
Mean Body Mass Index (BMI)	712	0.11	422	0.09	1134	0.08	652	0.10
Height and weight measures	n	SE	n	SE	n	SE	n	SE
<b>BMI categories<sup>b</sup></b>								
Child is underweight	712	0.74	422	0.74	1134	0.51	652	0.61
Child is normal weight	712	2.83	422	2.70	1134	2.09	652	2.33
Child is overweight	712	1.92	422	2.72	1134	1.81	652	2.23
Child is obese	712	2.09	422	1.92	1134	1.40	652	1.61

Source: Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

Table DD.5a. Standard errors for change in children's height and weight, by Head Start exposure: Fall 2014-Spring 2015

	Newly entering children															
	3-year-olds <sup>a</sup>				4-year-olds <sup>a</sup>				All newly entering children				All returning children			
	Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change		Fall 2014	Spring 2015	Fall-Spring Change	
Height and weight measures	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE
Mean height (in inches)	663	0.11	0.12	0.04	394	0.09	0.10	0.05	1057	0.14	0.14	0.04	603	0.11	0.10	0.04
Mean weight (in pounds)	662	0.33	0.45	0.23	394	0.25	0.32	0.17	1056	0.31	0.37	0.16	603	0.31	0.37	0.17
Mean Body Mass Index (BMI)	662	0.08	0.12	0.08	394	0.08	0.09	0.06	1056	0.06	0.08	0.06	603	0.10	0.12	0.05
Height and weight measures	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE	n	SE	SE	SE
<b>BMI categories<sup>b</sup></b>																
Child is underweight	662	0.65	0.71	1.01	394	0.57	0.78	0.95	1056	0.46	0.51	0.73	603	0.81	0.65	1.11
Child is normal weight	662	1.77	2.94	2.10	394	2.90	2.71	2.25	1056	1.61	2.19	1.60	603	2.44	2.46	2.61
Child is overweight	662	1.34	1.98	2.09	394	2.85	2.79	2.03	1056	1.41	1.88	1.58	603	1.80	2.28	2.34
Child is obese	662	1.74	1.96	1.40	394	1.58	1.85	1.37	1056	1.18	1.29	1.02	603	1.95	1.71	1.16

Source: Fall 2014 and Spring 2015 FACES Direct Child Assessment, Fall 2014 Parent Survey, and Survey Management System.

Note: Statistics are weighted to represent all children enrolled in Head Start in fall 2014 and who were still enrolled in spring 2015.

The n columns in this table include unweighted sample sizes to identify the number of children with valid data on each of the constructs.

<sup>a</sup>Age as of September 1, 2014.

<sup>b</sup>According to the Centers for Disease Control and Prevention (CDC), a child is considered to be underweight when his/her BMI score is below the 5th percentile for his/her age and gender, normal weight when his/her BMI score is at or above the 5th percentile and below the 85th percentile for his/her age and gender, overweight when his/her BMI score is at or above the 85th percentile and below the 95th percentile for his/her age and gender, and obese if his/her BMI is at or above the 95th percentile for his/her age and gender.

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