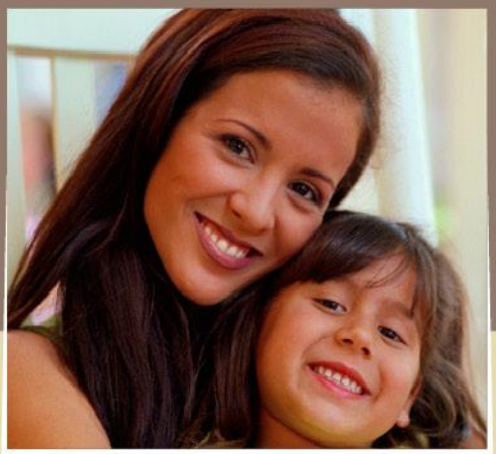
ACF/OPRE Report

Data Tables for FACES 2006

Head Start Children Go to Kindergarten Report

DECEMBER 2010



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ACF/OPRE Report

Data Tables for FACES 2006

Head Start Children Go to Kindergarten Report

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INTRODUCTION

Head Start is a national program that aims to promote 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 Head Start program provides grants to local public and private nonprofit and for-profit agencies to provide comprehensive child development services to economically disadvantaged children and families; the Office of Head Start places special emphasis on helping preschoolers develop the reading and mathematics skills they need to be successful in school. The program 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 [ACF] 2009).

The Head Start Family and Child Experiences Survey (FACES), sponsored by the U.S. Department of Health and Human Services, Administration for Children and Families (ACF), was first launched in 1997 as a periodic longitudinal study of program performance. Successive nationally representative samples of Head Start children and their families, classrooms, and programs provide descriptive information on the population served; staff qualifications, credentials, beliefs, and opinions; classroom practices and quality measures; and child and family outcomes. FACES includes a battery of direct child assessments across multiple domains. It also includes interviews with the child's parents, teachers, and program managers, as well as direct observations of classroom quality. (For background information on FACES 2006, see West et al. 2007, Tarullo et al. 2008, West et al. 2008, and West et al. 2010A).

This set of tables is designed to accompany a research brief that describes the group of children who first entered Head Start in fall 2006 either as a 3- or 4-year-old, completed one or two years in the program, and attended kindergarten the year after graduating from Head Start. *Head Start Children Go to Kindergarten* profiles the demographic characteristics of this group and describes their home and family life. It includes a description of the schools and kindergarten classrooms Head Start graduates attend. The report documents children's gains in a broad set of skills from program entry to Head Start graduation and to the end of the kindergarten year, and investigates the associations between children's skills when entering and leaving Head Start, their skills at the end of Head Start, and their progress through the spring of their kindergarten year (West et al. 2010b).

Following this introduction to the study methodology and sample, the tables in the first section provide information on the children's characteristics, family demographics, and home life, including language background, educational environment of the home, family routines, and socioeconomic risk status. They include information on parents' involvement with their children's elementary schools, the level of satisfaction with their children's schools, and parents' beliefs about how well Head Start prepared their children for kindergarten. In the second set of tables, we provide information about the schools Head Start children attend for kindergarten, their kindergarten

classrooms, and their teachers. We include information on the background of the children in their classrooms as well as educational experiences in the classroom. The third set of tables chronicles children's developmental progress from the time they completed Head Start through the end of kindergarten.[1] In the final two sections, we explore (1) the associations between children's school readiness skills as they complete Head Start and their developmental outcomes at the end of kindergarten and (2) the associations of child/family and Head Start characteristics with children's development at the end of Head Start and their developmental progress from Head Start entry to the end of kindergarten. We also explore the relationship of children's relative skills at program entry (that is, low, average, or high ability) to their development progress during this time period.

METHODS

FACES 2006 and earlier FACES cohorts provide information at the national level about Head Start programs, centers, classrooms, and the children and families they serve. A sample of Head Start programs was selected from the 2004-2005 Head Start Program Information Report (West et al. 2010b);[2] approximately two centers per program and three classrooms per center were selected for participation. Within each classroom, nine newly enrolled 3- and 4-year-old children, on average, were randomly selected for the study.[3] Sixty programs, 135 centers, 410 classrooms, 365 teachers, and 3,315 children participated in the study in the fall of 2006. Beginning in fall 2006, data were collected from entrance into the Head Start program, through one or two years of program participation, with followup in the spring of kindergarten. At each round of data collection, children in the study were administered a battery of direct child assessments, their parents were interviewed in person or by phone, and their teachers were interviewed in person or asked to complete a web survey.[4] Children's teachers were also asked to complete a set of ratings about them using either a web-based or a paper instrument.[5,6] More details on the study design and its implementation can be found in the FACES 2006 data file user's manual (West et al. 2010a) and earlier FACES 2006 reports (Tarullo et al. 2008; ACF 2010).

FACES draws samples of 3- and 4-year-old children who are entering Head Start for the first time and are expected to attend Head Start for one or two years before moving on to kindergarten. As a result, the kindergarten followup for this cohort occurred over a two-year period: spring 2008 for entering 4-year-olds and spring 2009 for entering 3-year-olds.[7] Data were collected over a four-month period (March–June). Data collection teams assessed the children in their homes and interviewed their parents by phone or in person.[8] Children's kindergarten teachers were asked to complete a set of ratings for all the FACES children in their classroom using either a web-based or paper instrument.[9] The tables in the following sections use data from the direct child assessments, parent interviews, teacher surveys and teacher-child ratings, and assessor ratings, which are completed at the end of the direct child assessments. We supplement the data from these sources with data from two national school universe surveys.

Direct child assessments and assessor ratings were completed for 89 percent of

the 2,096 children who were enrolled in kindergarten in spring 2008 or spring 2009, and 93 percent of their parents were interviewed.[10,11] A teacher survey and a teacher child report form was completed for 68 percent of the children.[12] Data from the direct child assessments are used here to report on children's cognitive and physical outcomes at the beginning of their first year in Head Start, after they have completed one or two years in the program, and in the spring of kindergarten. Parent and teacher ratings provide information about children's social skills, approaches to learning, problem behaviors, and academic and nonacademic accomplishments at these same time points. Assessor ratings are another source of information about children's social-emotional outcomes. We use parent interview data to describe children's backgrounds and home environment. Teacher survey responses and school universe data provide information on children's elementary schools, classrooms, and teachers.

Direct child assessments. The spring kindergarten battery of direct child assessments, like the one used in early rounds of the FACES 2006 data collection, included a set of standardized preschool-elementary assessments designed to measure children's cognitive (language, literacy, and mathematics) and physical (height and weight) outcomes through an untimed, one-on-one assessment of each child.

The procedures used to administer the direct child assessments in the spring of kindergarten were the same as those used in spring 2007 when the FACES 2006 children were completing their first year of Head Start.[13] The direct assessment began with a language screening to determine whether children from households where English was not the primary spoken language should be assessed in English or in Spanish, or administered only the English receptive language assessment, along with being weighed and measured. If a child had been assessed in English in one of the prior rounds, he or she was assessed in English. Assessments were administered in the same way as in earlier rounds. The child was shown hardcopy stimulus and response pages, and questions were asked and directions given orally by trained assessors. For example, the stimulus and response pages from the Peabody Picture Vocabulary Test-Fourth Edition (PPVT-4) (Dunn and Dunn 2006) and Woodcock-Johnson Tests of Achievement-Third Edition (WJ III) (Woodcock, McGrew, and Mather 2001) measures were used. Computer-assisted personal interviewing (CAPI) was used when administering the assessments to facilitate the movement from one measure to the next without assessors having to calculate starting or stopping points (that is, basals and ceilings). Assessors read the questions and instructions from a computer screen and the child responded by pointing to the correct answers on the assessment easel or by giving a verbal response. Assessors entered the child's responses into a laptop computer using software that ensured that all basal and ceiling rules were followed. During the kindergarten followup the child assessments were administered in the child's home.[14]

Parent interviews. FACES 2006 used a computer-assisted interview to collect information from children's parents in a variety of areas, including the characteristics of households (such as household income, number of adult household members, languages spoken

in the home) and household members (including age, race/ethnicity, and relationship to study child).[15] Information was also collected on aspects of the child's home and school life, children's child-care arrangements, parents' involvement and satisfaction with their children's schools, and parents' ratings of their children's social skills, problem behaviors, and language, literacy, and mathematics accomplishments.

Teacher survey and teacher child reports. Children's kindergarten teachers were asked to complete a two-part web survey. Part one included questions about the school where they teach and where the FACES child is enrolled. It also asked teachers a number of questions about their kindergarten classroom (such as languages used for instruction) and their instructional practices. Teachers were also asked about their backgrounds, credentials, and teaching experience. Part two asked teachers to rate each FACES child in their classroom on a set of items that assessed the child's accomplishments, cooperative classroom behavior, behavior problems, and approaches to learning. Teachers also provided reports of children's health, developmental conditions, and absences during the school year.

Assessor ratings. At the end of the one-on-one assessment with each child, the assessor completed a set of rating scales evaluating the child's behavior in the assessment situation, including his or hers approaches to learning and any problem behaviors. FACES 2006 used four subscales from the Leiter-R Examiner Rating Scales: (1) attention, (2) organization/impulse control, (3) activity level, and (4) sociability.

School universe data. The data used to describe children's schools come from the teacher survey and one additional source: school administrative records. Using information provided primarily by children's parents during the parent interview, we identified the schools attended by the children in the study and retrieved data about these schools from school administrative records collected and disseminated by the U.S. Department of Education's National Center for Education Statistics (NCES). Information about the public schools attended by FACES children comes from the Common Core of Data (CCD); information on private schools comes from the Private School Universe Survey (PSS) [16]

Population estimates. The statistics found in the tables are estimates of key characteristics of the population of children who entered Head Start for the first time in fall 2006, completed one or two years in the program, and were attending kindergarten in the spring of 2008 or 2009, as well as information about their parents, families, schools, and teachers. The data used to report on child, family, school, and classroom/ teacher characteristics and child outcomes are reported at the child level and weighted to represent this population.[17] Unless otherwise noted, all differences, correlations, and coefficients cited in the bullets accompanying the tables are statistically at the $p<.05$ level.[18]

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NOTES

[1] It is important to note that changes in children's skills and development during kindergarten reflect a range of influences in children's lives, including child-level characteristics such as maturation and health status, as well as community, school, classroom, peer, and family influences.

[2] Migrant and Seasonal Worker programs (MSHS), American Indian and Alaska Native (AI/AN) programs, programs in Puerto Rico and other U.S. territories, and programs not directly providing services to 3-, 4-, and 5-year-olds (such as Early Head Start) were excluded from the frame. The Office of Head Start provided information about any defunded (or soon-to-be defunded) programs before sampling and these programs were deleted from the sample frame. Thirteen programs affected by Hurricanes Katrina and Rita in August 2005 were unable to provide information for the 2004–2005 PIR data and thus were not eligible for sample selection.

[3] Children who were 3 years old and attending their first year of Head Start were sampled at a higher rate to ensure comparable sample sizes between 3-year-olds and 4-year-olds at the end of the kindergarten year, given the longer follow-up time for this younger group.

[4] A computer-assisted personal interview was conducted with Head Start teachers. Kindergarten teachers were asked to complete a web-survey.

[5] Head Start teachers completed 77 percent of the Teacher Child Rating forms using the web instrument.

[6] In fall 2006, interviews were conducted with the directors of the programs and centers in the sample and with education coordinators. In spring 2007, children's Head Start classrooms were observed.

[7] A small number of children who were sampled as 3-year-olds were enrolled in kindergarten in spring 2008. These children are not included in the analytic sample for this report.

[8] Parent interview cases were first attempted by phone, then in person during the study team's site visit week, and by phone after that week. Sixty-five percent of completed parent interviews were conducted by phone.

[9] Kindergarten teachers completed 73 percent of the teacher child rating forms using the web instrument.

[10] To be eligible for the kindergarten round of data collection, a child had to be enrolled in kindergarten and must have been enrolled in Head Start the previous spring.

[11] These are all weighted 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 2006 consent rates, are by definition lower. The cumulative child response rate is 72 percent. The corresponding cumulative response rates associated with completing the child assessments, parent interviews, and teacher surveys and ratings are 64 percent, 67 percent, and 49 percent, respectively.

[12] Children whose kindergarten teachers responded and did not respond are different on a number of characteristics (such as child's and kindergarten teacher's race/ethnicity and whether child's school was eligible for Title I funding). However, these differences do not translate into meaningful differences in the profiles of the children whose kindergarten teachers responded when compared to all the children eligible for the kindergarten data collection (Carlson and West, 2010). From this we can infer that we suffer little bias due to kindergarten teacher nonresponse when analyzing key child-level measures at kindergarten, especially when nonresponse-adjusted weights are used.

[13] See West et al. (2010) for more information on the direct child assessment battery and its administration.

[14] In earlier rounds, the child assessments were administered at children's Head Start programs.

[15] The preferred respondent for the kindergarten interview was the child's biological mother or the fall 2006 and/or spring 2007/2008 respondent.

[16] More information about these two sources is available from the NCES (http://nces.ed.gov/ccd and http://nces.ed.gov/survey/pss).

[17] Weights are used to compensate for the differential probabilities of selection at the sampling stage (for example, 3-year-olds were sampled at a higher rate than 4-year-olds) and to adjust for eligibility at later rounds and for the effects of nonresponse.

[18] Not all statistically significant differences found in this set of data tables (ACF 2010c) are described in the report, *Head Start Children Go to Kindergarten* (West et al. 2010b). Some differences and coefficients, although statistically significant, are very small and may not always be practically meaningful (for example, those with less than a five percentage point difference and an effect size smaller than .10).

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SECTION A

CHILD AND FAMILY DEMOGRAPHICS, PARENTING, AND THE HOME ENVIRONMENT

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Table A.1. Demographic Characteristics of Head Start Completers in Kindergarten

Demographic Characteristic[a]	Percent of Children		
	All Children	3-Year-Olds[b]	4-Year-Olds[b]
Age as of September 1, 2006			
3 years old or younger	54.9		
4 years old or older	45.1		
Age as of September 1 of the year child entered kindergarten			
60 months old or younger	17.8	23.8	10.6
61 to 64 months old	34.6	30.2	40.0
65 to 68 months old	32.9	31.4	34.9
69 months old or older	14.7	14.7	14.6
Race/Ethnicity			
White, Non-Hispanic	24.9	22.3	28.0
African American, Non-Hispanic	26.8	31.1	21.5
Hispanic/Latino	38.9	37.8	40.2
American Indian or Alaska Native	1.5	1.5	1.6
Asian or Pacific Islander	1.6	1.4	1.8
Multi-Racial/Bi-Racial, Non-Hispanic	5.4	4.7	6.3
Other, Non-Hispanic	1.0	1.2	0.7
Gender			
Female	49.3	51.3	47.2
Male	50.7	48.7	52.8

Source: Fall 2006 and Spring 2007 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

[a]At Head Start entry, fall 2006.

[b]Age as of September 1, 2006.

- About 55 percent of children were three years old as of September 1, 2006, when they first entered Head Start. On average, children were about five years and four months old as of September 1 of the year they entered kindergarten (not shown).
- Almost 40 percent of children are Hispanic/Latino.
- The population is almost evenly divided between girls and boys.

Table A.2. Primary Language Spoken to the Child at Home

	Percent of Children		
Primary Language Spoken to the Child at Home[a]	All Children	3-Year-Olds[b]	4-Year-Olds[b]
English	69.8	69.7	69.9
Spanish	26.1	26.2	26.1
Other	4.1	4.1	4.0

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

[a]At Head Start entry, fall 2006.

[b]Age as of September 1, 2006.

- Thirty percent of children live in households where English is not the primary language spoken to the child.
- Spanish is by far the most prevalent non-English language, spoken to the child in approximately one-quarter of households.

Table A.3. Household Size

Household Size and Membership[a]	Percent of Children		
	All Children	3-Year-Olds[b]	4-Year-Olds[b]
Number of Adults in Household			
1	26.8	28.6	24.7
2	52.3	51.5	53.2
3 or more	20.9	19.9	22.1
Mean Number of Adults	**2.1**	**2.0**	**2.1**
Number of Children in Household			
1	16.9	15.6	18.4
2	37.2	37.3	37.1
3	27.3	29.5	24.5
4 or more	18.7	17.5	20.0
Mean Number of Children	**2.6**	**2.6**	**2.6**
Total Number of Persons in Household			
2	4.4	4.9	3.8
3	17.2	16.2	18.5
4	29.1	30.0	28.1
5	23.8	25.3	22.0
6	14.2	12.9	15.8
7 or more	11.2	10.8	11.7
Mean Number of Persons	**4.7**	**4.7**	**4.7**

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

This table shows the total number of adults in children's households, including biological/adoptive parents and other adults, such as parents' romantic partners, step-parents, foster parents, and grandparents.

[a]At Head Start entry, fall 2006.

[b]Age as of September 1, 2006.

- On average, Head Start children live in households with 2.1 adults and 2.6 children.

- Over one-quarter of children live in households with only one adult. Just over half of the children's households contain 2 adults, and another 21 percent contain three or more adults.

- 83 percent of children live in households with other children.

Table A.4. Family Structure

Children Living with[a]	Percent of Children		
	All Children	3-Year-Olds[c]	4-Year-Olds[c]
Biological[b] Mother and Biological[b] Father	52.0	52.7	51.1
Married	34.5	34.1	35.4
Unmarried	16.1	17.4	14.7
Marital status not reported	0.4	0.5	0.2
Biological[b] Mother Only	42.8	43.1	42.5
Biological[b] Father Only	1.7	1.3	2.3
Neither Biological[b] Mother Nor Biological[b] Father	3.4	2.9	4.1

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

While the previous table (Table A.3) shows the total number of adults in children's households, 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.

[a]At Head Start entry, fall 2006.

[b]Includes both biological and adoptive parents.

[c]Age as of September 1, 2006.

• Just over half of children live with both biological/adoptive parents, and 35 percent live with both biological parents who are married.

Table A.5. Parent Education

Highest Level of Education of Biological or Adoptive Parents Living with Child[a]	Percent of Children		
	All Children	3-Year-Olds[c]	4-Year-Olds[c]
Percentage of Children Living with their Mother[b]	94.8	95.9	93.6
Highest Level of Education Completed by those Mothers[b]			
Less than high school diploma	39.2	38.8	39.7
High school diploma or GED	30.7	30.1	31.5
Some college/vocational/technical	24.2	25.1	23.0
Bachelor's degree or higher	5.9	6.0	5.8
Percentage of Children Living with their Father[b]	53.7	54.0	53.4
Highest Level of Education Completed by those Fathers[b]			
Less than high school diploma	46.5	44.3	49.5
High school diploma or GED	32.0	30.2	34.4
Some college/vocational/technical	14.9	17.4	11.8
Bachelor's degree or higher	6.5	8.2	4.3
Percentage of Children Living with Either Parent[b]	96.6	97.1	95.9
Highest Level of Education Completed by those Parents[b]			
Less than high school diploma	33.0	31.7	34.6
High school diploma or GED	32.2	31.5	33.2
Some college/vocational/technical	26.8	28.4	24.8
Bachelor's degree or higher	8.0	8.4	7.5

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

Households that do not include a mother and/or father are not included in the relevant percentage calculations.

[a]At Head Start entry, fall 2006.

[b]Includes both biological and adoptive parents.

[c]Age as of September 1, 2006.

- 61 percent of children's resident mothers have at least a high school diploma or GED.
- 53 percent of children's resident fathers have at least a high school diploma or GED.

Table A.6. Parent Employment Status

Employment Status of Biological or Adoptive Parents Living with Child[a]	Percent of Children		
	All Children	3-Year-Olds[c]	4-Year-Olds[c]
Percentage of Children Living with their Mother[b]	94.8	95.9	93.6
Employment Status of those Mothers[b]			
Working full-time	29.4	30.3	28.4
Working part-time	20.2	21.7	18.3
Looking for work	13.1	11.8	14.7
Not in labor force	37.3	36.2	38.6
Percentage of Children Living with their Father[b]	53.7	54.0	53.4
Employment Status of those Fathers[b]			
Working full-time	72.2	75.9	67.7
Working part-time	14.1	12.2	16.3
Looking for work	7.2	7.5	6.9
Not in labor force	6.5	4.4	9.1
Percentage of Children Living with Either Parent[b]	96.6	97.1	95.9
Employment Status of the Most Employed of those Parents[b]			
Working full-time	60.4	62.0	58.5
Working part-time	16.6	16.5	16.8
Looking for work	10.4	9.2	11.9
Not in labor force	12.5	12.3	12.8

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

Households that do not include a mother and/or father are not included in the relevant percentage calculations.

[a]At Head Start entry, fall 2006.

[b]Includes both biological and adoptive parents.

[c]Age as of September 1, 2006.

- 29 percent of children's resident mothers are working full-time, and another 20 percent are working part-time.
- 86 percent of children's resident fathers are employed, and most of these (72 percent) are working full-time.

Table A.7. Household Income as a Percentage of the Federal Poverty Threshold

	Percent of Children		
Income as a Percentage of Poverty[a]	All Children	3-Year-Olds[b]	4-Year-Olds[b]
50 percent or less	14.9	16.4	13.1
50 to 100 percent	42.9	42.6	43.3
101 to 130 percent	15.2	15.3	15.1
131 to 185 percent	15.2	14.3	16.2
186 to 200 percent	2.3	1.8	3.0
201 percent or above	9.5	9.6	9.3

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

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

[a]At Head Start entry, fall 2006.

[b]Age as of September 1, 2006.

• Nearly 60 percent of children live in households where the total household income is at or below the federal poverty threshold. Close to 90 percent live in households where the total household income is less than or equal to 185 percent of the poverty threshold.

Table A.8. Public Assistance Received by Any Household Member

Type of Public Assistance[a]	Percent of Children		
	All Children	3-Year-Olds[b]	4-Year-Olds[b]
Welfare	22.1	23.3	20.6
SNAP	51.2	54.1	47.7
WIC	61.0	64.4	56.8
SSI	14.1	12.5	15.9

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

[a]At Head Start entry, fall 2006.

[b]Age as of September 1, 2006.

• 61 percent of children live in households that receive assistance through USDA's WIC program; 51 percent live in households that receive SNAP benefits; and 22 percent live in households that receive welfare assistance (TANF).

Table A.9. Family Risk Index

Risk Factors[a]	Percent of Children		
	All Children	3-Year-Olds[e]	4-Year-Olds[e]
Single Parent Household[b]	44.4	44.0	44.9
Mother Does Not Have High School Diploma[c]	39.3	39.0	39.6
Income Below Federal Poverty Threshold	57.8	59.0	56.4
Family Risk Index[d]			
0 risk factors	17.6	17.6	17.5
1 risk factor	37.5	37.3	37.8
2 risk factors	33.4	32.8	34.2
3 risk factors	11.6	12.4	10.5

Source: Fall 2006 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. Child and family characteristics are derived from the Fall 2006 FACES Parent Interview and describe the characteristics of children and families at program entry.

[a]At Head Start entry, fall 2006.

[b]A single parent household includes any household where one biological/adoptive parent lives alone or with a partner to whom they are not married. It does *not* include households where one biological/adoptive parent lives with a partner to whom they are married.

[c]Households that do not include a mother are excluded from this factor.

[d]Number of family risks is based on three family characteristics from the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

[e]Age as of September 1, 2006.

- Regardless of age at entry, 45 percent of children have more than one family risk factor.

Table A.10. Frequency of Reading to Child: Spring 2008 or Spring 2009

	Number of Times Family Member Read to Child in Past Week			
Child and Family Characteristics	Not at All	Once or Twice	Three or More Times, but Not Every Day	Every Day
All Children	1.6	17.6	37.5	43.3
Age as of September 1, 2006				
3 years old or younger	1.1	18.2	37.2	43.4
4 years old or older	2.2	17.0	38.1	42.7
Race/Ethnicity				
White, Non-Hispanic	1.7	12.4	37.3	48.7
African American, Non-Hispanic	1.9	20.8	37.7	39.5
Hispanic/Latino	1.4	19.5	41.5	37.6
Other, Non-Hispanic	1.4	15.1	21.5	61.9
Gender				
Female	0.7	18.3	37.5	43.5
Male	2.5	16.9	37.4	43.2
Family Risk Index[a]				
0 risk factors	1.0	17.4	34.2	47.5
1 risk factor	2.0	14.4	36.5	47.1
2 or more risk factors	1.8	20.9	40.9	36.4
Primary Language Spoken to Child at Home				
English	1.7	17.7	37.6	43.0
Non-English	1.5	17.7	37.6	43.3

Source: Fall 2006, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Frequency of reading to child is derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

[a] Number of family risks is based on three family characteristics from the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

• Over 80 percent of children were read to by a family member at least three times in the week prior to the interview, including 43 percent who were read to every day that week.

• White children are more likely to be read to every day than were African American and Hispanic/Latino children.

• Children with two or more family risk factors are less likely to be read to daily than were those with fewer risk factors.

Table A.10a. Frequency of Reading to Child: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Number of Times Family Member Read to Child in Past Week											
	Not at All			Once or Twice			Three or More Times, but Not Every Day			Every Day		
Child and Family Characteristics	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
All Children	2.3	1.7	-0.7	19.5	17.8	-1.7	41.6	37.0	-4.6	36.5	43.5	7.0 **
Age as of September 1, 2006												
3 years old or younger	3.0	1.2	-1.8	20.0	18.6	-1.4	42.6	36.5	-6.2 *	34.5	43.8	9.3 ***
4 years old or older	1.6	2.3	0.7	19.0	16.9	-2.1	40.5	37.8	-2.7	38.9	43.0	4.1
Race/Ethnicity												
White, Non-Hispanic	1.3	1.8	0.6	13.2	12.2	-1.0	43.5	36.3	-7.3	42.0	49.7	7.7
African American, Non-Hispanic	2.2	2.0	-0.2	25.2	20.6	-4.6	42.5	37.3	-5.2	30.1	40.2	10.0 **
Hispanic/Latino	3.1	1.4	-1.7	21.9	19.9	-2.0	42.2	41.1	-1.0	32.8	37.5	4.7
Other, Non-Hispanic	2.4	1.5	-1.0	10.2	15.5	5.3	33.1	21.4	-11.7	54.2	61.6	7.3
Gender												
Female	2.1	0.7	-1.4	18.7	18.4	-0.3	41.2	37.4	-3.9	38.0	43.5	5.5 *
Male	2.6	2.7	0.1	20.3	17.2	-3.2	42.0	36.7	-5.3	35.1	43.5	8.4 *
Family Risk Index[a]												
0 risk factors	0.6	1.0	0.4	16.9	17.6	0.7	38.7	34.0	-4.7	43.8	47.4	3.6
1 risk factor	3.7	2.1	-1.7	16.6	14.6	-2.0	39.6	35.8	-3.8	40.1	47.5	7.5 *
2 or more risk factors	1.8	1.8	0.1	22.4	21.4	-1.0	44.5	39.9	-4.6	31.3	36.9	5.6 *
Primary Language Spoken to Child at Home												
English	1.7	1.7	0.0	17.6	17.7	0.2	43.2	37.1	-6.1 *	37.5	43.4	5.9 *
Non-English	3.8	1.5	-2.2	24.0	18.0	-6.0 **	38.2	37.1	-1.2	34.0	43.4	9.4 **

Source: Fall 2006, Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

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*p<.05; **p<.01; ***p<.001.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Frequency of reading to child is derived from the Spring 2007 and Spring 2008 FACES Parent Interview for 4-year-old children and from the Spring 2008 and Spring 2009 FACES Parent Interview for 3-year-old children.

[a]Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

• More children were read to by a family member every day in the week prior to the kindergarten interview, compared to the prior year. The percentage read to every day increased most for African American children (compared to White and Hispanic/Latino children) and for children whose parents primarily speak a non-English language to them at home.

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Table A.11. Family Members' Activities with Child in Past Week: Spring 2008 or Spring 2009

Type of Activity	Percent of Children
Told child a story	86.5
Taught child letters, words, or numbers	95.8
Taught child songs or music	78.8
Worked with child on arts and crafts	73.7
Played with toys or games indoors	96.8
Played a game, sport, or exercised together	90.2
Took child along on errands	95.3
Involved child in household chores	93.7
Talked about what happened in kindergarten	97.3
Talked about TV programs or videos	80.2
Played counting games	83.6
Mean Number of Activities	**9.7**

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

• During the kindergarten year, children continue to be involved in a variety of learning activities with their family members.

• The most common activities, each reported by at least 95 percent of parents, are talking about what happened in kindergarten; playing indoors; teaching letters, words, or numbers; and taking the child along on errands.

• The only activity reported by less than three-quarters of parents is working on arts and crafts.

Table A.11a. Family Members' Activities with Child in Past Week: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Percent of Children		
Type of Activity	Head Start Exit	Spring Kindergarten	Change
Told child a story	84.8	86.5	1.8
Taught child letters, words, or numbers	96.2	95.8	-0.4
Taught child songs or music	84.1	78.9	-5.2 **
Worked with child on arts and crafts	70.3	74.2	3.9 *
Played with toys or games indoors	96.8	96.7	-0.1
Played a game, sport, or exercised together	90.5	90.4	0.0
Took child along on errands	95.7	95.5	-0.2
Involved child in household chores	93.8	93.5	-0.3
Talked about what happened in Head Start	96.6	97.2	0.7
Talked about TV programs or videos	79.6	80.1	0.5
Played counting games	87.5	83.5	-4.0 *
Mean Number of Activities	**9.8**	**9.7**	**0.0**

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

• The most common activities were the same in the kindergarten year as they were in the prior year, but the prevalence of a few specific activities shifted. More families worked on arts and crafts during kindergarten than they did during the prior year, while fewer taught songs or played counting games.

Table A.12. Family Members' Activities with Child in Past Month: Spring 2008 or Spring 2009

Type of Activity	Percent of Children
Visited a library	43.1
Went to a movie	39.9
Went to a play, concert, or other live show	19.7
Went to a mall	76.4
Visited an art gallery, museum, or historical site	21.9
Visited a playground or park or had a picnic	77.8
Visited a zoo or aquarium	19.7
Talked about family history or ethnic heritage	59.6
Attended event sponsored by community group	43.8
Attended athletic or sporting event	32.0
Attended church activity	53.6
Mean Number of Activities	**4.9**

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

• During the kindergarten year, children continue to be involved in a variety of learning activities with their family members.

• The most common activities, each reported by at least three-quarters of parents, are visiting a playground or park and going to a mall.

• The least common activities, each reported by less than one-quarter of parents, are attending a play, concert, or other live show; visiting a zoo or aquarium; and visiting an art gallery, museum, or historical site.

Table A.12a. Family Members' Activities with Child in Past Month: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Percent of Children		
Type of Activity	Head Start Exit	Spring Kindergarten	Change
Visited a library	37.8	43.4	5.6 **
Went to a movie	42.7	39.8	-2.9
Went to a play, concert, or other live show	18.5	20.0	1.5
Went to a mall	78.9	76.2	-2.7
Visited an art gallery, museum, or historical site	20.9	22.3	1.4
Visited a playground or park or had a picnic	82.4	77.5	-4.9 *
Visited a zoo or aquarium	22.9	20.0	-2.9
Talked about family history or ethnic heritage	55.6	60.0	4.4 **
Attended event sponsored by community group	47.8	43.5	-4.3 *
Attended athletic or sporting event	32.2	32.4	0.3
Attended church activity	55.5	53.2	-2.3
Mean Number of Activities	5.0	4.9	-0.1

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

• As with in-home learning activities, the most common out-of-home learning activities were consistent across years but there were changes in the prevalence of specific types. During the kindergarten year, children were more likely to visit a library with a family member and talk with a family member about their families' history and ethnic heritage than they were the year before. They were less likely to visit a playground or park and attend an event sponsored by a community group.

Table A.13. Household Routines: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Have Regular Bedtime	89.8	88.9	90.7
Number of Days Per Week Family Eats Dinner Together			
0-2	4.4	5.1	3.5
3-4	21.4	20.8	22.2
5-6	24.7	23.4	26.7
7	49.6	50.7	47.7
Mean	5.6	5.6	5.5

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

• Ninety percent of children have a regular bedtime.

• On average, children's families eat dinner together 5-6 times per week.

Table A.13a. Household Routines: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Have Regular Bedtime	86.9	90.1	3.2 **	86.6	89.7	3.1	87.3	90.7	3.4
Number of Days Per Week Family Eats Dinner Together									
0-2	6.1	4.3	-1.8 *	6.5	4.8	-1.7	5.6	3.6	-2.0
3-4	21.3	21.6	0.3	23.2	21.0	-2.2	18.8	22.4	3.6
5-6	24.2	24.8	0.6	25.1	23.3	-1.8	23.2	26.8	3.7
7	48.4	49.2	0.9	45.2	50.9	5.7 *	52.4	47.2	-5.3
Mean	5.5	5.6	0.1	5.4	5.6	0.2 *	5.6	5.5	-0.1

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

• The percentage of children who have a regular bedtime increased between the last year of Head Start and the kindergarten year.

Table A.14. Discipline: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Parent spanked child in past week	17.8	15.3	20.4
Parent used "time out" in past week	61.6	58.5	65.2

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

• Less than one in five children were spanked in the past week, and 62 percent were disciplined using "time out."

Table A.14a. Discipline: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Parent spanked child in past week	26.1	17.8	-8.3 ***	24.9	15.6	-9.3 ***	27.8	20.6	-7.2 **
Parent used “time out” in past week	66.3	61.8	-4.5 *	65.2	58.7	-6.5 **	67.5	65.6	-1.9

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

• Compared to the previous year, fewer children were spanked or disciplined using “time out” in the week prior to the kindergarten interview.

Table A.15. Child Nutrition: Spring 2008 or Spring 2009

	Percent of Children		
Child's Nutrition During Past Week	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Drank milk at least twice a day	60.4	59.0	61.7
Drank no soda, sports drinks, or non-100%-juice drinks	20.2	19.6	20.5
Ate no fast food	24.2	23.7	24.8
Ate sweets less than once a day	71.8	69.2	74.9
Ate salty snacks less than once a day	76.0	74.8	77.2

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The nutritional guidelines in this table were determined a priori, based on conversations with a member of an Office of Head Start expert panel.

[a]Age as of September 1, 2006.

- 60 percent of children drink milk at least twice a day.
- 20 percent avoid soda and other sweetened beverages completely, and 24 percent avoid fast food.
- 72 percent eat sweets less than once a day, and 76 percent eat salty snacks less than once a day.

Table A.15a. Child Nutrition: Spring 2007-Spring 2008 or Spring 2008-Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
Child's Nutrition During Past Week	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Drank milk at least twice a day	69.7	60.0	-9.7 ***	70.3	59.3	-11.0 ***	69.1	60.7	-8.3 *
Drank no soda, sports drinks, or non-100%-juice drinks	22.7	19.2	-3.5	22.1	19.0	-3.1	23.5	19.5	-4.0
Ate no fast food	24.1	24.0	-0.1	24.8	24.0	-0.8	23.3	23.9	0.7
Ate sweets less than once a day	68.7	71.9	3.2	66.4	69.6	3.2	71.6	74.8	3.2
Ate salty snacks less than once a day	77.9	76.1	-1.8	77.1	75.0	-2.1	78.9	77.5	-1.4

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

The nutritional guidelines in this table were determined a priori, based on conversations with a member of an Office of Head Start expert panel.

• Fewer children drank milk at least twice a day in the week prior to the kindergarten interview than in the previous year.

Table A.16. Child's Health Care: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Regular Medical Checkup in Past Year	95.1	95.7	93.8
Regular Dental Checkup in Past Year	90.6	90.3	91.0
Has Health Insurance	94.8	94.7	94.9
Private	61.4	63.5	58.2
Medicaid	64.1	63.8	64.2
SCHIP[b]	29.4	31.4	25.9
Other government	4.9	6.0	3.1

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

[b]State Children's Health Insurance Program.

• 95 percent of children have had a regular medical check-up in the past year, and 91 percent have seen a dentist.

• 95 percent of children have health insurance. Medicaid is the most common type, followed by private insurance. Many parents report having multiple types of health insurance for their child.

Table A.16a. Child's Health Care: Spring 2007-Spring 2008 or Spring 2008-Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Regular Medical Checkup in Past Year	98.4	95.1	-3.3 **	98.8	96.0	-2.8 *	97.8	93.7	-4.0 *
Regular Dental Checkup in Past Year	94.3	90.3	-4.0 **	95.5	89.7	-5.8 *	93.0	91.1	-1.9
Has Health Insurance	93.9	94.8	0.8	95.4	94.4	-0.9	92.0	95.2	3.1
Private	56.6	60.5	3.9	60.0	61.9	1.9	52.5	58.6	6.1
Medicaid	63.1	64.1	1.0	64.2	63.9	-0.3	61.6	64.2	2.6
SCHIP[b]	23.8	29.2	5.4	24.3	30.9	6.6	22.9	26.8	4.0
Other government	3.9	4.0	0.1	3.2	5.0	1.8	4.8	2.8	-2.1

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

[b]State Children's Health Insurance Program.

• The percentage of children who had had a regular medical check-up in the past year decreased between the last year of Head Start and the kindergarten year, as did the percentage who had seen a dentist.

Table A.17. Child's Health Care, by Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children			
	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/Latino	Other, Non-Hispanic
Regular Medical Checkup in Past Year	97.9	94.7	93.3	95.4
Regular Dental Checkup in Past Year	89.4	93.3	89.3	90.1
Has Health Insurance	96.5	96.3	91.9	97.7
Private	56.2	63.7	63.1	64.2
Medicaid	57.0	68.9	64.4	63.5
SCHIP[a]	25.4	33.5	30.2	25.3
Other government	1.4	4.1	4.7	16.1

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Child's health care is derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

[a]State Children's Health Insurance Program.

• White children are more likely than African American and Hispanic/Latino children to have had a medical checkup in the past year.

• Hispanic/Latino children are less likely to have health insurance than are White and African American children.

Table A.18. Depressive Symptoms Among Parents[a]: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[b]	4-Year-Olds[b]
Degree of Depressive Symptoms			
Not depressed	58.8	61.6	56.0
Mildly depressed	23.8	20.2	27.7
Moderately depressed	8.4	10.0	6.3
Severely depressed	9.0	8.1	10.1
Mean Number of Depressive Symptoms	**5.3**	**5.0**	**5.5**

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]In this table, the term "parent" is used to refer to the primary caregiver who responded to the survey. Most are parents, but some are grandparents or other primary caregivers.

[b]Age as of September 1, 2006.

• Nine percent of children's parents report symptoms of severe depression, and another eight percent report symptoms of moderate depression.

Table A.18a. Depressive Symptoms Among Parents[a]: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[b]			4-Year-Olds[b]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Degree of Depressive Symptoms[c]									
Not depressed	61.9	58.8	-3.0	64.1	61.6	-2.5	58.9	56.0	-3.0
Mildly depressed	21.6	23.8	2.2	17.4	20.2	2.9	27.0	27.7	0.7
Moderately depressed	9.0	8.4	-0.6	10.3	10.0	-0.3	7.3	6.3	-1.0
Severely depressed	7.6	9.0	1.4	8.2	8.1	-0.1	6.8	10.1	3.3
Mean Number of Depressive Symptoms	4.9	5.3	0.4	4.8	5.0	0.2	5.0	5.5	0.6

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]In this table, the term "parent" is used to refer to the primary caregiver who responded to the survey. Most are parents, but some are grandparents or other primary caregivers.

[b]Age as of September 1, 2006.

[c] 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 percentage of children's parents reporting symptoms of depression did not change significantly between the last year of Head Start and the kindergarten year.

Table A.19. Depressive Symptoms Among Parents,[a] by Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children			
	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/Latino	Other, Non-Hispanic
Degree of Depressive Symptoms				
Not depressed	48.5	53.4	69.9	61.3
Mildly depressed	27.5	26.8	20.2	17.9
Moderately depressed	11.4	9.4	5.2	8.3
Severely depressed	12.6	10.3	4.7	12.5
Mean Number of Depressive Symptoms	**6.7**	**6.1**	**3.7**	**5.3**

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Depressive symptoms are derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

[a]In this table, the term "parent" is used to refer to the primary caregiver who responded to the survey. Most are parents, but some are grandparents or other primary caregivers.

• The parents of Hispanic/Latino children report fewer depressive symptoms and are less likely than other parents to report symptoms of moderate or severe depression.

Table A.20. Child Care Arrangements in Addition to Kindergarten: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Type of Primary Child Care Arrangement (Percentage of All Children)			
Center-based care	7.6	7.9	7.4
Relative	20.5	21.3	19.6
Non-relative	3.9	3.8	4.1
Equal time in multiple types of care	1.1	0.6	1.7
Any Child Care (Percentage of All Children)	33.2	33.7	32.8
Type of Primary Child Care Arrangement (Percentage of Those in Any Child Care)			
Center-based care	23.0	23.6	22.5
Relative	61.9	63.3	59.8
Non-relative	11.9	11.4	12.6
Equal time in multiple types of care	3.2	1.7	5.2

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

- A third of children are cared for by someone other than their parents before or after kindergarten.
- Relative care is the most common type of care children receive (20 percent).

Table A.20a. Child Care Arrangements in Addition to Head Start/Kindergarten: Spring 2007-Spring 2008 or Spring 2008-Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Type of Primary Child Care Arrangement									
Center-based care	9.7	7.5	-2.2	9.8	7.8	-2.0	9.5	7.1	-2.3
Relative	26.5	20.5	-6.0 ***	26.4	21.3	-5.1 **	26.6	19.4	-7.2 **
Non-relative	3.5	3.8	0.4	3.3	3.7	0.4	3.7	4.1	0.4
Equal time in multiple types of care	0.9	1.1	0.2	1.2	0.6	-0.6	0.7	1.8	1.1
Any Child Care	40.5	32.9	-7.6 **	40.6	33.4	-7.2 **	40.5	32.4	-8.1

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

• A smaller percentage of children were cared for by someone other than their parents before or after kindergarten than were in child care before or after Head Start the previous year.

Table A.21. Child Care Arrangements in Addition to Kindergarten, by Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children			
	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/Latino	Other, Non-Hispanic
Type of Primary Child Care Arrangement (Percentage of All Children)				
Center-based care	7.4	9.5	6.0	10.3
Relative	15.3	30.5	17.0	21.0
Non-relative	3.6	3.0	5.0	3.3
Equal time in multiple types of care	0.6	0.6	2.0	0.1
Any Child Care (Percentage of All Children)	26.9	43.7	30.0	34.6
Type of Primary Child Care Arrangement (Percentage of Those in Any Child Care)				
Center-based care	27.5	21.8	19.9	29.7
Relative	56.9	69.8	56.7	60.5
Non-relative	13.5	6.9	16.8	9.5
Equal time in multiple types of care	2.1	1.4	6.6	0.3

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Child care arrangements are derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

• African American children are more likely to be in before- or after-care than are White and Hispanic/Latino children, and are particularly more likely to be cared for by a relative.

Table A.22. Amount of Time in Child Care and Kindergarten: Spring 2008 or Spring 2009

	Mean Number of Hours Per Week		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Kindergarten			
Among all households	31.0	31.9	29.8
Child Care			
Among those in child care	13.7	13.4	14.0
Among all households	4.5	4.5	4.6
Total Kindergarten and Child Care			
Among those in child care	44.5	45.3	43.5
Among all households	35.5	36.4	34.4

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

- Children spend an average of 31 hours per week in kindergarten.
- Children in supplemental child care receive an average of 14 hours per week in before- and after-care.
- Among all children, the amount of time they spend in any type of care—including both kindergarten and other child care—averages 36 hours per week. For those children who receive both kindergarten and child care, the total average hours per week in care is 45 hours.
- Children's parents pay an average of $50.56 per week for before- and after- care (not shown).

Table A.22a. Amount of Time in Child Care and Head Start/Kindergarten: Spring 2007 - Spring 2008 or Spring 2008 - Spring 2009

	Mean Number of Hours Per Week								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Head Start/Kindergarten									
Among all households	23.0	31.0	8.0 ***	24.1	32.0	7.9 ***	21.6	29.7	8.1 ***
Child Care									
Among those in child care	15.5	13.7	-1.8 *	15.0	13.4	-1.6	16.2	14.0	-2.2
Among all households	6.2	4.5	-1.8 ***	6.0	4.4	-1.6 ***	6.5	4.6	-1.9 ***
Total Head Start/Kindergarten and Child									
Among those in child care	37.6	44.5	6.8 ***	38.0	45.3	7.3 ***	37.1	43.5	6.3 ***
Among all households	27.9	34.1	6.2 ***	27.6	32.2	4.6 ***	27.9	34.3	6.4 ***

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

• Children spend more time in kindergarten programs than they spent in Head Start programs the previous year, and spend less time in child care during the kindergarten year than the prior year.

Table A.23. Parent Health Behaviors: Spring 2008 or Spring 2009

	Percent of Children		
Health Behavior	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Parent Has Health Insurance	67.8	68.1	67.8
Parent Smokes Tobacco	22.3	20.3	24.9
Any Household Member Smokes Tobacco	32.4	29.4	35.6

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

- Over two-thirds of children's parents have health insurance.
- Almost a third of children have a parent who smokes.

Table A.23a. Parent Health Behaviors: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
Health Behavior	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
Parent Has Health Insurance	67.3	67.9	0.6	68.6	68.3	-0.3	65.7	67.2	1.5
Parent Smokes Tobacco	25.0	22.3	-2.6 *	21.8	20.4	-1.4	29.0	24.8	-4.1
Any Household Member Smokes	33.6	32.1	-1.5	29.6	29.3	-0.3	38.8	35.8	-3.0

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

• The percentage of children's parents who smoke tobacco decreased between the last year of Head Start and the kindergarten year.

Table A.24. Social Support: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
If I need to do an errand, I can easily find someone to watch my child			
Never true	11.9	12.0	11.9
Sometimes true	34.9	33.5	35.9
Always true	53.2	54.5	52.2
If I need a ride to get my child to the doctor, friends or family will help me			
Never true	8.7	8.9	8.4
Sometimes true	17.8	18.5	16.3
Always true	73.5	72.6	75.3
If my child is sick, friends or family will call or come by			
Never true	8.3	9.1	7.3
Sometimes true	21.8	21.6	22.1
Always true	70.0	69.3	70.6
If my child is having problems at kindergarten, there is a friend, relative, or neighbor I can talk it over with			
Never true	7.2	8.5	5.7
Sometimes true	16.2	16.0	16.5
Always true	76.6	75.5	77.8
If I have an emergency and need cash, family or friends will loan it to me			
Never true	10.1	9.8	10.6
Sometimes true	26.2	25.9	26.9
Always true	63.6	64.3	62.5
If I have troubles or need advice, I have someone I can talk to			
Never true	4.8	5.3	4.2
Sometimes true	18.0	18.2	17.4
Always true	77.1	76.5	78.4
Number of Types Of Help Parent Can Always Get (Mean)	4.1	4.1	4.2
Types of People Parent Finds Very Helpful			
Family member(s) [b]	88.7	88.0	89.4
Friend(s) [c]	49.9	51.4	47.6
Kindergarten staff	58.1	59.2	57.2
Professional(s) other than kindergarten staff[d]	34.6	36.2	32.3

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

[b]This measure combines responses to questions about the helpfulness of the respondent's current spouse or partner; the child's mother, father, and grandparents; and other relatives.

[c]This measure combines responses to questions about the helpfulness of friends, co-workers, other Head Start parents, and religious or social group members.

[d]This measure combines responses to questions about the helpfulness of professional helpgivers like counselors or social workers and other child care providers.

• The majority of parents report always having various types of support when needed

Table A.24a. Social Support: Spring 2007-Spring 2008 or Spring 2008-Spring 2009

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change	Head Start Exit	Spring Kinder-garten	Change
If I need to do an errand, I can easily find someone to watch my child									
Never true	16.3	11.8	-4.4 **	16.4	12.2	-4.2 *	16.1	11.4	-4.6 *
Sometimes true	35.1	34.4	-0.7	33.6	32.9	-0.7	36.9	36.0	-0.9
Always true	48.6	53.8	5.2 **	50.0	54.9	4.9 *	47.1	52.5	5.5
If I need a ride to get my child to the doctor, friends or family will help me									
Never true	9.3	8.8	-0.4	10.0	9.2	-0.8	8.3	8.4	0.0
Sometimes true	21.3	17.3	-3.9 *	22.6	18.5	-4.1	19.7	15.8	-3.8
Always true	69.5	73.9	4.4 ***	67.3	72.3	4.9 *	72.0	75.8	3.8
If my child is sick, friends or family will call or come by									
Never true	9.4	8.3	-1.1	11.5	9.6	-1.9	7.0	6.9	-0.2
Sometimes true	25.2	21.9	-3.3	25.1	21.2	-3.9	25.2	22.6	-2.6
Always true	65.4	69.8	4.4 *	63.4	69.2	5.8 *	67.8	70.6	2.8
If my child is having problems at Head Start/kindergarten, there is a friend, relative, or neighbor I can talk it over with									
Never true	9.3	7.5	-1.9	11.3	9.1	-2.2	7.0	5.5	-1.4
Sometimes true	20.9	16.3	-4.7 *	21.9	16.1	-5.8 **	19.8	16.5	-3.3
Always true	69.7	76.3	6.5 **	66.7	74.8	8.0 **	73.3	78.0	4.7
If I have an emergency and need cash, family or friends will loan it to me									
Never true	10.3	10.3	0.1	11.0	10.3	-0.7	9.4	10.4	1.0
Sometimes true	29.6	25.7	-3.9	30.7	25.9	-4.8	28.2	25.5	-2.7
Always true	60.1	64.0	3.9 *	58.3	63.8	5.5 *	62.4	64.1	1.7
If I have troubles or need advice, I have someone I can talk to									
Never true	3.2	5.1	1.8	3.9	5.7	1.7	2.4	4.4	2.0
Sometimes true	21.5	17.8	-3.8 *	22.2	18.3	-3.9 *	20.7	17.1	-3.5
Always true	75.2	77.2	2.0	73.9	76.0	2.2	76.9	78.5	1.6
Number of Types of Help Parent Can Always Get (Mean)	3.9	4.2	0.3 ***	3.8	4.1	0.3 **	4.0	4.2	0.2

	Percent of Children								
	All Children			3-Year-Olds[a]			4-Year-Olds[a]		
	Year before Kinder-garten	Kinder-garten Year	Change	Year before Kinder-garten	Kinder-garten Year	Change	Year before Kinder-garten	Kinder-garten Year	Change
Types of People Parent Finds Very Helpful									
Family member(s)[b]	87.8	88.5	0.7	86.7	87.7	1.0	89.1	89.4	0.4
Friend(s)[c]	44.1	49.5	5.4 **	45.2	50.8	5.7 *	43.0	48.0	5.0 *
Head Start/kindergarten staff	59.6	59.5	-0.1	62.0	60.1	-1.9	56.9	58.7	1.8
Professional(s) other than Head Start/kindergarten staff[d]	24.6	35.3	10.7 **	25.7	37.1	11.4 **	22.8	32.7	9.9 *

Source: Spring 2007, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. All reported gains are statistically significant at the .05 level.

*p<.05; **p<.01; ***p<.001.

[a]Age as of September 1, 2006.

[b]This measure combines responses to questions about the helpfulness of the respondent's current spouse or partner; the child's mother, father, and grandparents; and other relatives.

[c]This measure combines responses to questions about the helpfulness of friends, co-workers, other Head Start parents, and religious or social group members.

[d]This measure combines responses to questions about the helpfulness of professional helpgivers like counselors or social workers and other child care providers.

• Parents report more social support in the kindergarten year than in the previous year.

Table A.25. Parent Involvement in Kindergarten: Spring 2008 or Spring 2009

Child and Family Characteristics	Ways Parent Participated This Year			
	Attended general school meeting	Attended parent-teacher conference	Attended school or class event	Volunteered at the school
All Children	85.6	88.4	58.8	38.2
Age as of September 1, 2006				
3 years old or younger	85.5	87.5	58.6	39.5
4 years old or older	85.5	89.2	58.7	36.7
Race/Ethnicity				
White, Non-Hispanic	86.8	91.7	62.0	40.9
African American, Non-Hispanic	86.9	85.2	57.1	46.9
Hispanic/Latino	84.5	88.5	55.7	30.2
Other, Non-Hispanic	81.7	86.7	65.7	38.7
Primary Language Spoken to Child at Home				
English	86.1	87.5	58.7	42.5
Non-English	84.0	90.1	58.6	28.3
Highest Level of Education Completed by Mother[a]				
Less than high school diploma	86.2	88.5	52.9	32.3
High school diploma or GED	87.9	92.6	60.8	40.2
Some college/vocational/technical	85.2	89.2	62.5	47.7
Bachelor's degree or higher	95.2	96.7	77.8	40.5
Employment Status of Mother[a]				
Working full-time	83.5	88.7	56.6	40.3
Working part-time	90.9	94.6	67.1	46.1
Looking for work	86.0	88.2	62.4	34.3
Not in labor force	88.0	90.2	55.4	35.6

Source: Fall 2006, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Parent involvement in kindergarten is derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

[a]Includes both biological and adoptive parents.

• 86 percent of children had a parent attend a general school meeting during their kindergarten year, and 88 percent had a parent attend a parent-teacher conference during the year.

• Volunteering at kindergarten is less common, reported by fewer than 40 percent of parents.

• Parents of Hispanic/Latino children and those who primarily speak a language other than English to their children at home are less likely to volunteer at the school than other parents.

• Mothers with at least a high school diploma are more likely to attend events and volunteer at their child's kindergarten than are those without a diploma.

• Mothers who are employed (full- or part-time) are more likely to volunteer at their child's kindergarten than are those who are not working. Among working mothers, those employed full-time are less likely than those employed part-time to attend meetings and events at their child's school.

Table A.26. Parent Satisfaction with Kindergarten: Spring 2008 or Spring 2009

	Percent of Children		
	All Children	3-Year-Olds[a]	4-Year-Olds[a]
Parent report of how well child's school does the following			
Lets parent know (between report cards) how child is doing in school			
Very well	83.9	84.4	83.4
Just OK	14.1	13.8	14.3
Not at all	2.0	1.7	2.4
Helps parent understand what children at child's age are like			
Very well	72.9	73.3	72.2
Just OK	20.5	21.5	19.4
Not at all	6.6	5.1	8.4
Makes parent aware of chances to volunteer at the school			
Very well	77.7	78.9	76.8
Just OK	14.1	13.3	15.2
Not at all	8.2	7.8	8.0
Provides workshops, materials, or advice about how to help child learn at home			
Very well	75.9	79.5	71.9
Just OK	17.6	15.2	20.7
Not at all	6.5	5.3	7.4
Provides information on community services to help child or your family			
Very well	57.4	58.9	55.9
Just OK	26.6	27.0	26.5
Not at all	16.0	14.1	17.6
Understands the needs of families who don't speak English			
Very well	63.3	63.9	63.2
Just OK	23.6	23.4	22.8
Not at all	13.2	12.6	13.9
How satisfied parent is with what Head Start did to help child and family be prepared for school			
Very satisfied	85.9	86.4	85.1
Somewhat satisfied	11.0	10.6	11.5
Somewhat dissatisfied	1.7	2.1	1.3
Very dissatisfied	1.4	0.9	2.1

Source: Spring 2008 and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Age as of September 1, 2006.

• More parents feel that the school does "very well" in areas directly related to school (such as letting them know how their child is doing in school and making them aware of volunteer opportunities at the school) than feel that the school does "very well" in other areas (like providing information about community services).

• 86 percent of parents are very satisfied with what Head Start did to prepare the child and family for school.

Table A.27. Parent Satisfaction with Kindergarten, by Primary Language Spoken to Child at Home: Spring 2008 or Spring 2009

	Percent of Children		
		Primary Language Spoken to Child at Home	
	All Children	English	Non-English
Parent report of how well child's school does the following			
Lets parent know (between report cards) how child is doing in school			
Very well	83.9	82.3	87.8
Just OK	14.1	15.4	10.9
Not at all	2.0	2.3	1.3
Helps parent understand what children at child's age are like			
Very well	72.9	69.9	79.7
Just OK	20.5	22.9	15.3
Not at all	6.6	7.3	5.0
Makes parent aware of chances to volunteer at the school			
Very well	77.7	78.9	75.9
Just OK	14.1	13.6	15.3
Not at all	8.2	7.5	8.8
Provides workshops, materials, or advice about how to help child learn at home			
Very well	75.9	74.2	80.9
Just OK	17.6	19.3	13.8
Not at all	6.5	6.6	5.3
Provides information on community services to help child or your family			
Very well	57.4	55.5	62.5
Just OK	26.6	27.5	25.0
Not at all	16.0	17.0	12.5
Understands the needs of families who don't speak English			
Very well	63.3	58.6	72.3
Just OK	23.6	23.9	21.9
Not at all	13.2	17.5	5.8
How satisfied parent is with what Head Start did to help child and family be prepared for school			
Very satisfied	85.9	84.1	89.9
Somewhat satisfied	11.0	12.1	8.7
Somewhat dissatisfied	1.7	2.1	1.0
Very dissatisfied	1.4	1.8	0.5

Source: Fall 2006, Spring 2008, and Spring 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Parent satisfaction is derived from the Spring 2008 or Spring 2009 FACES Parent Interview for 4-year-old and 3-year-old children, respectively.

• Parents who primarily speak a language other than English to their children at home tend to report greater satisfaction than do other parents with how well the school does in most areas. The sole exception is making parents aware of volunteer opportunities at the school.

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SECTION B

SCHOOLS AND KINDERGARTEN CLASSROOM HEAD START CHILDREN ATTEND

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Table B.1. Kindergarten School Characteristics: 2007-2008 School Year

Kindergarten School Characteristics	Percent of Children
School Type	
Public	99.4
Private	0.6
Public School Type	
Regular	91.1
Charter	3.5
Magnet	5.1
Highest Grade	
Prekindergarten/Kindergarten	3.6
Elementary School (grade 1 through 5)	65.6
Middle or High School (grade 6 through 12)	30.7
Ungraded	0.1
School Size	
Fewer than 250 students	10.1
250 – 499 students	39.2
500 – 749 students	30.3
750 or more students	20.4
Title I Eligibility[a]	
Individual student services	93.0
School-wide program services	83.7
Percentage of Students Eligible for Free-/Reduced-Priced Lunch	
Less than 25 percent	10.0
25 – 49 percent	21.0
50 – 74 percent	36.0
75 percent or greater	33.0
Percent Racial/Ethnic Minority Enrollment	
Less than 25 percent	24.8
25 – 49 percent	13.5
50 – 74 percent	15.8
75 percent or greater	45.8

Source: Common Core of Data 2007-2008, Private School Survey 2007-2008, U.S. Department of Education, Institute for Education Sciences, National Center for Education Statistics.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Schools may be eligible for Title I funds to provide services at different levels. Local education agencies target funds to public schools with the highest percentage of students from low-income families. In this case, Title I services must focus on individual students who are failing, or most at risk of failing, to meet state academic standards. If the school has at least 40 percent of students from low-income families, Title I funds can be used to fund school-wide programs that benefit all students.

• Nearly all Head Start children attend a public school kindergarten (99 percent). A small percent attend charter and magnet schools (4 percent and 5 percent, respectively).

• Most children attend public elementary schools that are eligible for Title I (93 percent), and 84 percent attend schools that are eligible to use their Title I funds for school-wide programs.

• Approximately two-thirds of children attend kindergarten in schools where at least one-half of the student body is eligible for free- or reduced-priced lunch. About one-third attend schools where 75 percent or more of the student body is eligible for free- or reduced-priced lunch.

• Almost one-half of children attend schools with a student body that includes 75 percent minority students.

Table B.2. Kindergarten School Transition Activities: Spring 2008 or Spring 2009

Kindergarten School Transition Activities	Percent of Children
Phone or Send Information About Kindergarten Program to Parents	85.4
Preschoolers Spend Time in Kindergarten Classroom	39.1
Shorter School Days at Beginning of School Year	10.5
Parents/Children Visit Kindergarten Prior to Start of School Year	83.4
Visit Homes of Children at Beginning of School Year	4.4
Orientation for Parents Prior to Start of School Year	80.8
Other Transition Activities	16.3

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

• Children attend schools that provide a range of kindergarten transition activities, as reported by their kindergarten teachers. The most common activities (at approximately 80 percent each) are phoning or sending information to parents, having parents and children visit the kindergarten program, and an orientation for parents prior to the start of the school year. Almost 40 percent of children attend schools that have preschoolers spend time in a kindergarten classroom as a transition activity.

Table B.3. Kindergarten Classroom Characteristics for All Children by Primary Language Spoken to Child at Home and Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children						
		Primary Language Spoken to Child at Home		Race/Ethnicity			
Classroom Characteristics	All Children	English	Non-English	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/ Latino	Other, Non-Hispanic
Kindergarten Program Type							
Full-Day Program	81.6	84.5	74.9	81.9	94.5	73.5	77.5
Half-Day Program	18.4	15.5	25.1	18.1	5.5	26.5	22.5
Class Size							
Fewer than 17 students	18.1	19.5	15.4	17.9	22.9	14.3	22.4
17 – 24 students	67.7	67.6	67.7	73.8	60.5	68.3	68.5
25 or more students	14.2	13.0	16.9	8.3	16.7	17.3	9.0
Mean							
Class Size	20.0	19.8	20.4	19.9	19.6	20.5	19.1
Student:Teacher/Aide Ratio	12.5	12.5	12.4	12.5	12.4	12.7	11.8
Percent Race/Ethnicity of Classmates							
White, Non-Hispanic	38.2	46.1	19.9	78.0	22.2	21.8	46.9
African American, Non-Hispanic	27.9	33.8	14.8	10.3	67.0	13.3	23.6
Hispanic/Latino	28.7	15.9	57.8	7.6	8.9	59.5	12.1
American Indian or Alaska Native	2.0	2.0	2.2	2.5	0.2	0.8	11.5
Asian or Pacific Islander	3.0	1.9	5.5	1.4	1.4	4.4	5.5
Percentage of Students Eligible for Free-/Reduced-Price Lunch	70.9	68.3	76.5	55.8	78.2	76.1	65.2
Percentage of Students with Limited English Proficiency	21.3	9.6	47.6	5.8	6.9	41.5	17.4

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Classroom characteristics are derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

• About 80 percent of Head Start children attend a full day of kindergarten (either a full-day program or a morning class and an afternoon class) as reported by their kindergarten teachers.

• The average class size of children's kindergarten classrooms is 20 children.

• The classroom composition is diverse with children in classrooms that average 28 to 38 percent each of White, African American, and Hispanic/Latino classmates. The mean percentage of classmates who are eligible forfree- or reduced-priced lunch is approximately 70 percent. On average, children are in classrooms where 21 percent of their classmates have limited English proficiency as reported by the kindergarten teacher.

• Children with a primarily non-English home language are less likely to attend a full-day program than children with English as the primary home language (75 percent versus 85 percent). Children with a primarily non-English home language are less likely to be in the smallest classes (less than 17 students; 15 percent versus 20 percent) than children with English as the primary home language.

• The composition of children's kindergarten classrooms differs by primary home language. Children with a primarily non-English home language as compared to English have a higher percentage of classmates who are Hispanic/Latino (58 percent versus 16 percent). In turn, they have a lower percentage of classmates who are White (20 percent versus 46 percent) and African American (15 percent versus 34 percent). The mean percentage of classmates who are eligible to receive free- or reduced-priced lunch is also higher for children with a primarily non-English home language. On average, children with a primarily non-English home language are in classrooms with almost five times more classmates with limited English proficiency.

• The type of kindergarten program children attend differs across racial/ethnic groups. Children who are African American are more likely to attend a full day of kindergarten than children from other racial/ethnic groups. Children who are White are also more likely to attend a full day of kindergarten than children who are Hispanic/Latino. Class size also varies by children's race/ethnicity. On average, the mean class size is higher for children who are Hispanic/Latino than children who are African American (21 versus 20 children). In terms of small classes, children who are Hispanic/Latino are less likely than other racial/ethnic groups to be in classes with fewer than 17 students. On the other end of the spectrum, children who are White are less likely to be in classes with 25 or more students than children who are Hispanic/Latino or African American.

• The composition of children's kindergarten classrooms differs by children's race/ethnicity. For the most part, children attend kindergarten classrooms where more than one-half of classmates are of the same racial/ethnic background. For example, children who are White are in classrooms where on average 78 percent of the class includes students who are White; this pattern is seen for children who are African American (67 percent same race peers) and children who are Hispanic/Latino (60 percent same ethnicity peers). Children who are Hispanic/Latino also have more African American peers in their classrooms than children who are White (13 percent versus 10 percent of classmates).

• Additionally, the mean percentage of classmates who are eligible to receive free- or reduced-priced lunch is lower for children who are White versus other children. On average, children who are Hispanic/Latino are in classrooms with more classmates with limited English proficiency as reported by the kindergarten teacher (42 percent versus 6 to 7 percent).

Table B.4. Kindergarten Classroom Characteristics by Number of Family Risks: Spring 2008 or Spring 2009

Classroom Characteristics	Percent of Children with Different Numbers of Family Risks[a]		
	0 Risks	1 Risk	2 or More Risks
Kindergarten Program Type			
Full-Day Program	91.2	79.5	80.4
Half-Day Program	8.8	20.5	19.6
Class Size			
Fewer than 17 students	15.4	18.1	19.9
17 – 24 students	74.7	62.4	67.6
25 or more students	9.9	19.4	12.5
Mean			
Class Size	19.9	20.4	19.6
Student:Teacher/Aide Ratio	12.9	12.5	12.3
Percent Race/Ethnicity of Classmates			
White, Non-Hispanic	50.2	37.4	32.5
African American, Non-Hispanic	25.4	27.5	29.1
Hispanic/Latino	19.1	27.9	34.6
American Indian or Alaska Native	2.6	2.6	1.6
Asian or Pacific Islander	2.7	3.8	2.2
Percentage of Students Eligible for Free-/Reduced-Price Lunch	64.6	68.7	75.8
Percentage of Students with Limited English Proficiency	13.4	21.3	25.1

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Classroom characteristics are derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

• Children with no family risks are more likely to attend a full day of kindergarten than children with one or more risks. On average, class sizes are larger for children with one family risk than children with two or more family risks. In terms of small versus large classrooms, no significant differences exist for small classes of fewer than 17 students, but children with one family risk are more likely to be in classes of 25 or more students than other children (19 percent versus 10 to 13 percent).

• The composition of children's kindergarten classrooms differs by the child's family risk. Children who have no family risks are in classrooms with higher percentages of classmates who are White than children with one family risk, who in turn have more White peers than children with two or more family risks (50 percent, 37 percent and 33 percent of classmates, respectively). In turn, children with two or more family risks are in classrooms with higher percentages of classmates who are Hispanic/Latino than children with one family risk who in turn are higher than children with no family risks (35 percent, 28 percent and 19 percent of classmates, respectively). The mean percentage of classmates who are eligible to receive free- or reduced-priced lunch is higher for children who have two or more family risks than for children who have one or no family risks. On average, children who have any family risks are in classrooms with a higher percentage of classmates with limited English proficiency, as reported by their kindergarten teacher, than children with no family risks.

Table B.5. Kindergarten Teacher Demographic Characteristics for All Children and by Primary Language Spoken to Child at Home and Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children						
		Primary Language Spoken to Child at Home		Race/Ethnicity			
Teacher Background	All Children	English	Non-English	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/ Latino	Other, Non-Hispanic
Gender							
Female	97.5	97.7	96.8	98.6	98.2	95.8	99.2
Male	2.5	2.3	3.2	1.4	1.8	4.2	0.8
Age							
18 – 29	15.3	15.4	14.2	11.6	19.4	14.3	15.8
30 – 39	27.6	27.7	27.3	32.5	27.0	27.1	18.2
40 – 49	22.9	23.2	22.8	24.0	22.3	23.4	20.3
50 – 59	27.9	29.0	25.4	27.6	25.7	26.6	41.0
60 or Older	6.4	4.7	10.3	4.4	5.6	8.6	4.7
Race/Ethnicity							
White, Non-Hispanic	74.0	79.0	63.3	92.8	70.5	63.1	81.1
African American, Non-Hispanic	8.8	11.3	2.3	2.1	24.8	2.3	5.0
Hispanic/Latino	13.7	7.2	29.0	2.1	3.2	30.4	6.4
American Indian or Alaska Native	1.0	0.6	1.7	1.1	0.0	0.1	6.8
Asian or Pacific Islander	1.1	0.7	2.2	0.2	0.9	2.0	0.3
Multi-Racial/Bi-Racial, Non-Hispanic	1.4	1.3	1.6	1.6	0.6	2.1	0.4

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Teacher background is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

• Most children have a kindergarten teacher who is female, and about one-half of children's kindergarten teachers are between the ages of 30 and 49. About three-quarters of children have a teacher who is White, and about 14 percent have a teacher who is Hispanic/Latino.

• Children's kindergarten teachers' gender and age does not vary by children's home language, except children from homes where a non-English language is primarily spoken to them are more likely to have teachers who are 60 years or older. These children are also more likely to have a teacher who is Hispanic/Latino than children from primarily English-speaking homes (29 percent versus 7 percent, respectively) and in turn less likely to have a teacher who is White or African American.

• Children who are Hispanic/Latino are more likely to have a kindergarten teacher who is male than other children (4 percent, 1 to 2 percent, respectively). Children's kindergarten teachers differ in age across child race/ethnicity. Children who are African American are more likely to have teachers under age 30 than children who are White or Hispanic/Latino (19 percent versus 12 and 14 percent). Also children who are Hispanic/Latino are more likely to have a teacher age 60 or older than children who are White (9 percent versus 4 percent, respectively).

• Children's teachers' race/ethnicity varies by the child's own race/ethnicity. While the majority of children's teachers are White, children who are African American are more likely to have a kindergarten teacher who is African American as compared to other groups (25 percent versus 2 percent). Similarly, children who are Hispanic/Latino are more likely to have a kindergarten teacher who is also Hispanic/Latino as compared to other groups (30 percent versus 2 to 3 percent). Across racial/ethnic groups, children who are White are most likely to have a teacher who is White (93 percent), followed by children who are African American (71 percent), and finally by children who are Hispanic/Latino (63 percent).

Table B.6. Kindergarten Teacher Demographic Characteristics by Number of Family Risks: Spring 2008 or Spring 2009

	Percent of Children with Different Numbers of Family Risks[a]		
Teacher Background	0 Risks	1 Risk	2 or More Risks
Gender			
Female	98.7	95.9	98.0
Male	1.3	4.1	2.0
Age			
18 – 29	18.8	13.8	13.4
30 – 39	30.3	25.4	29.7
40 – 49	20.8	21.8	25.5
50 – 59	24.0	32.3	25.2
60 or Older	6.1	6.7	6.3
Race/Ethnicity			
White, Non-Hispanic	78.4	76.0	69.5
African American, Non-Hispanic	8.1	6.7	10.4
Hispanic/Latino	9.3	12.0	17.9
American Indian or Alaska Native	0.8	1.8	0.4
Asian or Pacific Islander	1.0	1.7	0.9
Multi-Racial/Bi-Racial, Non-Hispanic	2.4	1.8	0.8

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Teacher background is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

• Children's kindergarten teachers are similar in gender and age, except that children who have one family risk are more likely to have a teacher age 50 to 59 years than other children (32 percent versus 24 percent for no family risks and 25 percent for two or more family risks).

• Children's teachers' race/ethnicity differs by children's family risk status. Children with two or more family risks are less likely to have teachers who are White than children with no or one family risk (70 percent versus 78 and 76 percent). Children with one family risk are less likely to have teachers who are African American than children with two or more family risks (7 percent versus 10 percent). Also children with no or one family risk are less likely to have teachers who are Hispanic/Latino than children with two or more family risks (9 and 12 percent, respectively, versus 18 percent).

Table B.7. Kindergarten Teacher Education and Credentials for All Children by Primary Language Spoken to Child at Home and Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children						
		Primary Language Spoken to Child at Home		Race/Ethnicity			
Teacher Education and Credentials	All Children	English	Non-English	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/ Latino	Other, Non-Hispanic
Years Teaching							
Fewer than 3 years	8.9	9.0	9.0	5.8	10.6	9.4	11.0
3 – 9 years	28.9	27.0	32.4	25.3	30.9	31.6	19.5
10 – 19 years	32.4	33.3	30.7	34.2	32.8	32.4	27.7
20 years or more	29.8	30.7	27.9	34.7	25.7	26.6	41.7
Years Teaching Kindergarten							
Fewer than 3 years	20.2	21.2	17.0	19.8	23.0	17.3	22.9
3 – 9 years	46.9	44.4	53.7	45.5	44.2	52.7	37.9
10 – 19 years	22.4	22.0	23.3	22.1	22.5	23.0	19.2
20 years or more	10.4	12.4	6.0	12.6	10.2	7.0	19.9
Highest Level of Education[a]							
No Bachelor's Degree (BA)	0.8	0.5	1.6	0.3	0.4	0.1	6.8
Bachelor’s Degree (BA)	50.4	49.1	53.9	44.6	49.9	55.1	49.3
Graduate or Professional Degree	48.0	49.8	43.5	55.1	49.7	43.7	41.2
Field of Study[a]							
Child Development	2.3	1.4	4.5	0.3	3.0	3.5	1.7
Early Childhood Education	20.0	20.0	20.1	15.1	25.9	18.9	22.5
Elementary Education	59.4	62.4	53.3	69.2	57.0	54.9	60.0
Special Education	5.0	5.7	3.7	7.7	3.7	3.9	7.0
Teaching Certificate Type							
No Certificate	0.3	0.3	0.3	0.0	0.2	0.1	2.2
Temporary	4.6	4.5	4.9	3.1	5.8	3.5	9.7
Alternate	0.7	0.9	0.2	0.2	1.4	0.6	0.4
Regular	82.7	82.7	82.5	85.2	81.6	83.9	74.7
Advanced Professional	11.8	11.6	12.1	11.5	11.0	12.0	12.9

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Teacher education and credentials are derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]Education and field of study may not sum to 100 percent based on "Other" category not presented.

• Just over one-half of children have kindergarten teachers with 10 or more years of experience teaching in general. About one-third of children have teachers with 10 or more years of experience teaching kindergarten.

• Almost one-half of children have kindergarten teachers who have earned a graduate or professional degree. For all children, just over one-half of their teachers have elementary education as their field of study, and one-fifth of children have teachers who focused on early childhood education.

• Teacher years of experience in terms of the least (fewer than 3) and most (20 or more) is similar by the primary language spoken to the child at home for teaching in general. For years of teaching kindergarten, children who are primarily spoken to at home in a non-English language are less likely to have teachers with 20 or more years of experience (6 percent versus 12 percent).

• Teacher education and credentials differ somewhat by the primary language spoken to the child at home. Children with a primarily non-English home language are less likely to have teachers with a graduate degree (44 percent versus 50 percent) and though rare are also more likely to have teachers without a bachelor's degree (2 percent versus 1 percent). These children are more likely to have teachers whose field of study is child development but less likely to have teachers from elementary education fields than children with English as the primary home language. While infrequent, children with a primarily English home language are more likely to have teachers with an alternate teaching certification (1 percent versus 0 percent). Certification types otherwise appear similar by home language.

• Teacher years of experience in terms of the least (fewer than 3) and most (20 or more) years differ by children's race/ethnicity. In terms of years of teaching in general, children who are African American are more likely than children who are White to have teachers with fewer than 3 years of experience (11 percent versus 6 percent) but less likely to have teachers with 20 or more years of experience (26 percent versus 35 percent). Children who are Hispanic/Latino are also less likely than children who are White to have teachers with 20 or more years of experience (27 percent versus 35 percent). For years of teaching kindergarten, children who are African American are more likely than children who are Hispanic/Latino to have teachers with fewer than 3 years (23 percent versus 17 percent). Children who are White are more likely than children who are Hispanic/Latino to have teachers with 20 or more years of experience (13 percent versus 7 percent).

• Teacher education and credentials differ by children's race/ethnicity. Children who are White are more likely to have teachers with a graduate degree than children who are Hispanic/Latino (55 percent versus 44 percent). Children who are Hispanic/Latino are more likely than children who are White to have teachers with a bachelor's degree (55 percent versus 45 percent). Children's teachers' fields of study also vary among racial/ethnic groups. Children who are White are more likely to have teachers who focused on elementary education and special education than children who are African American or Hispanic/Latino (69 percent versus 57 and 55 percent for elementary education and 8 percent versus 4 percent each for special education). These two groups are more likely to have teachers with child development as the main field of study than children who are White (3 and 4 percent versus 0 percent). Children who are African American are more likely to have teachers with a field of study in early childhood education than children who are White or Hispanic/Latino (26 percent versus 15 and 19 percent). In terms of teacher credentials, children who are African American are more likely than children who are White to have teachers with a temporary certification (6 percent versus 3 percent) or alternate certification (1 percent versus 0 percent).

Table B.8. Kindergarten Teacher Education and Credentials by Number of Family Risks: Spring 2008 or Spring 2009

	Percent of Children with Different Numbers of Family Risks[a]		
Teacher Education and Credentials	0 Risks	1 Risk	2 or More Risks
Years Teaching			
Fewer than 3 years	10.0	6.0	10.1
3 – 9 years	30.5	29.6	27.8
10 – 19 years	31.6	31.1	35.5
20 years or more	27.8	33.3	26.6
Years Teaching Kindergarten			
Fewer than 3 years	22.2	16.3	20.9
3 – 9 years	47.5	48.9	47.5
10 – 19 years	18.2	24.5	23.8
20 years or more	12.2	10.3	7.7
Highest Level of Education[b]			
No Bachelor's Degree (BA)	1.0	1.1	0.6
Bachelor’s Degree (BA)	50.0	44.1	55.5
Graduate or Professional Degree	48.5	53.8	43.3
Field of Study[b]			
Child Development	1.5	2.1	2.7
Early Childhood Education	16.0	21.0	20.4
Elementary Education	63.1	57.8	59.6
Special Education	8.2	4.1	4.6
Teaching Certificate Type			
No Certificate	0.2	0.2	0.4
Temporary	4.0	5.0	4.5
Alternate	1.9	0.9	0.1
Regular	83.9	80.7	83.6
Advanced Professional	10.1	13.2	11.4

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Teacher education and credentials are derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

[b]Education and fields of study may not sum to 100 percent based on "Other" category not presented.

• Children's teachers' experience, education, and credentials are generally similar across children's family risk status. Some differences exist among children with risk factors. Children with two or more risk factors compared to children with one risk factor are more likely to have a teacher with fewer than 3 years of teaching experience and less likely to have 20 or more years. Children with one risk factor are more likely to have a teacher with a graduate degree than children with two or more risk factors.

Table B.9. Kindergarten Classroom Language of Instruction for All Children by Primary Language Spoken to Child at Home and Race/Ethnicity: Spring 2008 or Spring 2009

	Percent of Children						
		Primary Language Spoken to Child at Home		Race/Ethnicity			
Language of Instruction	All Children	English	Non-English	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/ Latino	Other, Non-Hispanic
English Only	77.5	87.9	53.0	95.4	89.5	55.7	86.5
Spanish Only	0.4	0.2	1.0	0.3	0.3	0.7	0.0
English and Spanish	18.5	9.1	40.6	2.9	6.8	39.2	6.7
English and Other, Non-Spanish Language	1.4	2.0	0.3	0.7	2.0	1.0	4.0
Other Combinations	2.1	0.8	5.2	0.7	1.4	3.3	2.8

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Language of instruction is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

• Nearly all children attend kindergarten classrooms where English is the language of instruction. Three-quarters of children attend kindergarten classrooms where the language of instruction is English only. An additional 18.5 percent of children are in classrooms where English and Spanish are both used for instruction.

• The language of instruction children experience in kindergarten differs by their home language. Children from homes where a language other than English is primarily spoken to them are more likely to receive instruction in both English and Spanish than children from homes with English as the primary language (41 percent versus 9 percent). Children from homes with English as the primary language are more likely to be in classrooms that use only English for instruction (88 percent versus 53 percent). Children who are primarily spoken to at home in a non-English language are more likely to receive instruction in Spanish only (1 percent versus 0 percent). Children from homes with English as the primary language are more likely than children from primarily non-English homes to receive instruction in English in combination with another non-English, non-Spanish language (2 percent versus 0 percent).

• The language of instruction children receive in kindergarten differs by their race/ethnicity. Children who are Hispanic/Latino are less likely to be in classrooms where instruction is provided in English only compared to other groups (56 percent versus 90 to 95 percent). In turn, these children are more likely to be in classrooms where instruction is in English and Spanish (39 percent versus 3 percent to 7 percent). Additionally, children who are African American are more likely to experience instruction in both English and Spanish than children who are White (7 percent versus 3 percent).

Table B.10. Kindergarten Classroom Language of Instruction by Number of Family Risks: Spring 2008 or Spring 2009

	Percent of Children with Different Numbers of Family Risks[a]		
Language of Instruction	0 Risks	1 Risk	2 or More Risks
English Only	83.7	76.6	74.4
Spanish Only	0.9	0.2	0.4
English and Spanish	13.7	18.2	22.3
English and Other, Non-Spanish Language	0.0	1.1	1.9
Other Combinations	1.7	3.9	1.0

Source: Fall 2006 FACES Parent Interview, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview. Language of instruction is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

• The language of instruction children receive in kindergarten differs by their family risk status. Children who have two or more family risks are more likely than children who have no family risks to be in classrooms where instruction is in both English and Spanish (22 percent versus 14 percent) or English in combination with another language (2 percent versus 0 percent). Children who have no family risks are more likely to receive instruction in English only than children with one or more family risks (84 percent versus 74 to 77 percent).

Table B.11. Time Spent on Different Subjects, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

	Percent of Children[a]				Mean Hours per Week[b]	
Subject	Never	Monthly	Weekly	Daily or Almost Daily	All Children	Children Who Receive at Least Monthly
Reading and Language Arts	0.0	0.1	0.1	99.9	6.5	6.5
Mathematics	0.0	0.1	0.7	99.2	4.2	4.2
Social Studies	0.7	6.2	42.0	51.1	1.2	1.2
Science	0.4	9.0	41.1	49.4	1.2	1.2
Physical Education	8.0	4.2	51.8	35.9	1.5	1.6

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a]Monthly refers to a subject being taught "less than once a week;" weekly was reported as "1-2 times a week," and daily or almost daily includes both responses for frequency of "daily" and "3-4 times a week."

[b]Mean hours is based on two survey items: (1) frequency of activity—"never," "less than once a week," "1-2 times a week," "3-4 times a week," and "daily" and (2) how much time (academic subjects)—"1-30 minutes a day," "31-60 minutes a day," "61-90 minutes a day," and "more than 90 minutes a day"; physical education time: "1-15 minutes per day," "16-30 minutes per day," "31-60 minutes per day," and "more than 60 minutes per day"). Each response was recoded to a numeric value based on the midpoint of a range, exact response, or top response possible: (1) frequency of activity—"never" = 0, "less than once a week" = 0.5, "1-2 times a week" = 1.5, "3-4 times a week" = 3.5, and "daily" = 5; (2) how much time—academic subjects: "1-30 minutes a day" = 15, "31-60 minutes a day" = 45, "61-90 minutes a day" = 75, and "more than 90 minutes a day" = 90; physical education time: "1-15 minutes per day" = 7, "16-30 minutes per day" = 22, "31-60 minutes per day" = 45, and "more than 60 minutes per day" = 60. The mean hours was calculated by multiplying the two values and dividing by 60.

• Almost all children receive instruction in reading and language arts and mathematics daily or almost daily. Children spend approximately 7 hours per week on reading and language arts and 4 hours on mathematics (averaged across children in full-day and part-day kindergarten programs).

• Compared to reading and math, social studies and science are taught less frequently. About one-half of children receive instruction in social studies and science daily or almost daily. Instructional time in these subjects averages about 1 hour per week.

• About one-third of children receive physical education daily or almost daily, more typically weekly. On average, children spend about 2 hours per week in physical education.

Table B.12. Frequency of Daily Recess Time, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

	Percent of Children		
		Kindergarten Program Type	
Frequency of Recess	All Children	Full-Day	Part-Day
No Recess	7.8	6.3	14.2
1 to 15 minutes	30.5	23.0	62.8
16 to 30 minutes	41.1	45.6	21.6
More than 30 minutes	20.7	25.0	1.4

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Program type is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Child Report. Frequency of recess is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

• Most children have recess, as reported by kindergarten teachers. More than half of children participate in recess more than 15 minutes a day. Only about one in five children participate in recess for more than 30 minutes a day.

• Children's frequency of daily recess varies by kindergarten program type. Children in full-day programs are more likely to experience recess than those in part-day programs (6 versus 14 percent, respectively). Also children in full-day kindergarten programs participate in recess longer. One-quarter of children in full-day programs participate for more than 30 minutes a day compared to approximately 1 percent of children in part-day programs.

Table B.13. Frequency of Physical Activity of Children's Classrooms, as Reported by Kindergarten Teachers, by Child Spring Kindergarten Body Mass Index Classification: Spring 2008 or Spring 2009

	Percent of Children			
	Body Mass Index Classification[a]			
	Child is Underweight	Child is Normal Weight	Child is Overweight	Child is Obese
Physical Education[b]				
Never	6.6	9.6	7.2	3.8
Monthly	7.4	3.3	6.2	2.3
Weekly	40.6	53.1	47.4	56.5
Daily or almost daily	45.4	33.9	39.2	37.4
Recess				
No recess	10.9	6.0	8.5	10.5
1 to 15 minutes a day	17.9	28.9	42.6	26.9
16 to 30 minutes a day	36.4	43.4	30.5	46.8
More than 30 minutes a day	34.8	21.8	18.4	15.9
Physical Education	Mean Hours Per Week[c]			
All children	1.4	1.4	1.4	1.6
Children who receive at least monthly	1.5	1.6	1.5	1.7

Source: Spring 2008 or Spring 2009 FACES Direct Child Assessment, Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Body Mass Index is derived from the Spring 2008 or Spring 2009 FACES Direct Child Assessment. Frequency of physical activity is derived from the Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

[a]For the percentage of children by Body Mass Index classification see Table C.19.

[b]Monthly refers to a subject being taught "less than once a week;" weekly was reported as "1-2 times a week," and daily or almost daily includes both responses for frequency of "daily" and "3-4 times a week."

[c]Mean hours is based on two survey items: (1) frequency of activity—"never," "less than once a week," "1-2 times a week," "3-4 times a week," and "daily") and (2) how much time (academic subjects)—"1-30 minutes a day," "31-60 minutes a day," "61-90 minutes a day," and "more than 90 minutes a day"; physical education time: "1-15 minutes per day," "16-30 minutes per day," "31-60 minutes per day," and "more than 60 minutes per day"). Each response was recoded to a numeric value based on the midpoint of a range, exact response, or top response possible: (1) frequency of activity—"never" = 0, "less than once a week" = 0.5, "1-2 times a week" = 1.5, "3-4 times a week" = 3.5, and "daily" = 5; (2) how much time (academic subjects)—"1-30 minutes a day" = 15, "31-60 minutes a day" = 45, "61-90 minutes a day" = 75, and "more than 90 minutes a day" = 90; physical education time: "1-15 minutes per day" = 7, "16-30 minutes per day" = 22, "31-60 minutes per day" = 45, and "more than 60 minutes per day" = 60. The mean hours was calculated by multiplying the two values and dividing by 60.

• Most children participate in physical education at least weekly for an average of 1 to 2 hours a week. Similar numbers participate daily or almost daily by their Body Mass Index (BMI) classification at the end of kindergarten; the average number of hours does not differ by BMI. However, some differences emerge when considering those who never participate or participate weekly. Children who are categorized as a normal weight are more likely to never go to physical education than children who are obese (10 percent versus 4 percent). Children who are obese are more likely to go to physical education weekly than children who are underweight (57 percent versus 41 percent).

• Most children have recess opportunities, as reported by kindergarten teachers, but regardgin opportunity for recess for more than 30 minutes a day, differences exist by BMI. Children who are classified as underweight (35 percent) are more likely to participate in recess more than 30 minutes a day than children who are classified as overweight or obese (18 percent and 16 percent, respectively).

Table B.14. Frequency of Reading and Language Activities in Children's Classrooms, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

	Percent of Children			
Reading and Language Activity	Never	Monthly	Weekly	Daily or almost daily
Work on letter naming	0.0	1.1	2.5	96.3
Practice writing letters	0.1	0.4	4.1	95.3
Discuss new words	0.0	0.1	6.3	93.6
Work on phonics	0.1	0.3	0.5	99.2
Listen to teacher read stories where they see the print	0.0	0.7	4.8	94.5
Listen to teacher read stories where they don’t see the print	14.1	12.6	18.3	55.0
Retell stories	0.3	10.3	29.1	60.3
Learn about conventions of print	0.0	0.9	7.7	91.4
Write own name	0.0	0.2	0.4	99.3
Learn about rhyming words and word families	0.1	3.1	11.7	85.1
Learn about common prepositions	0.4	17.9	27.8	53.9

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

• For all reading and language activities, more than half of children are in classrooms where the teachers report engaging in the activities daily or almost daily.

• The most common reading and language activities include: working on letter naming, practicing writing letters, discussing new words, working on phonics, listening to teacher read stories where children see the print, learning about conventions of print, and writing their own name. At least 90 percent of children's teachers report engaging in these activities daily or almost daily.

• Compared to other activities, smaller percentages of teachers have children listen to teacher read stories where they don’t see the print (55 percent) or learn about common prepositions (54 percent) on a daily basis.

Table B.15. Frequency of Math Activities in Children's Classrooms, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

	Percent of Children			
Math Activity	Never	Monthly	Weekly	Daily or Almost Daily
Count out loud	0.0	0.3	1.4	98.3
Work with geometric manipulatives	0.0	19.8	32.3	47.9
Work with counting manipulatives	0.0	6.9	20.0	73.1
Play math-related games	0.5	12.2	28.4	58.9
Work with rulers or other measuring instruments	3.1	63.6	24.4	8.9
Engage in calendar-related activities	1.6	34.6	11.2	52.5

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

• More than half of children are in kindergarten classrooms where teachers report engaging in various math activities daily or almost daily. "Counting out loud" is the most common math activity. Almost all children are in classrooms where counting out loud is a daily or almost daily activity. The next highest frequency math activities include: working with counting manipulatives (73 percent) and playing math-related games (59 percent).

• Compared to other activities, a small percentage of children "work with rulers or other measuring instruments" on a daily basis. They do this more typically on a monthly basis.

Table B.16. Provision of Interest Centers, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

Interest Center	Percent of Children
Reading Area	99.3
Listening Center	80.8
Writing Center	92.9
Pocket Chart or Flannel Board	91.1
Math Area	96.6
Puzzle and Block Area	95.8
Water or Sand Table	26.9
Computer Area	84.1
Science or Nature Area	43.5
Dramatic Play Area	64.8
Art Area	76.0

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring

• Children attend kindergarten classrooms that have several interest centers. Most children (90 percent or more) have access to a reading area, writing center, pocket chart, math area, and puzzle and block area. Less frequently seen in children's kindergarten classrooms are science or nature areas (44 percent of children) and water or sand tables (27 percent).

Table B.17. Kindergarten Classroom Behavior, as Reported by Kindergarten Teachers: Spring 2008 or Spring 2009

	Percent of Children
Group misbehaves very frequently	0.8
Group misbehaves frequently	10.4
Group misbehaves occasionally	39.8
Group behaves well	38.5
Group behaves exceptionally well	10.5

Source: Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring

• Children attend kindergarten classrooms that are generally well behaved or classrooms where children misbehave occasionally as reported by their teachers. Eleven percent of children attend classrooms where student misbehavior is a frequent or very frequent problem.

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SECTION C

CHILD OUTCOMES

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Table C.1. Summary Statistics for FACES Child Assessment Data for Children Taking the Assessment in English: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
PPVT-4 Standard Score[a]	1360	85.5	90.5	95.0
WJ III: Letter-Word Identification Standard Score	1290	93.0	98.6	107.9
WJ III: Spelling Standard Score	1347	93.8	96.2	108.2
WJ III: Applied Problems Standard Score	1250	88.8	90.7	96.7
WJ III: Word Attack Standard Score	1392	NA	NA	113.8
ECLS–B Math IRT Score	1404	7.6	12.3	19.0
ECLS–B Number/Shape Proficiency Probability Score	1404	0.27	0.69	0.96
Combined ECLS–B/WJ III Applied Problems IRT Score	1404	14.5	24.4	37.2
PPVT-4 Growth Score Value (GSV) Score	1360	99.3	118.8	135.6
WJ III: Letter-Word Identification W Ability Score	1290	305.2	334.5	391.0
WJ III: Spelling W Ability Score	1347	345.6	380.0	428.5
WJ III: Applied Problems W Ability Score	1250	375.5	401.5	430.4
WJ III: Word Attack W Ability Score	1392	NA	NA	439.3

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•When entering and exiting Head Start, children score below national norms on many measures of language, literacy, and math development. In the area of letter-word knowledge, however, they score close to norms by Head Start exit. Notably, at the end of kindergarten, children score above norms in the areas of letter-word knowledge, early writing, and word attack. In contrast, they score about one-third of a standard deviation below norms in receptive vocabulary and applied problems at the end of kindergarten.

•In terms of absolute performance, children make progress across developmental areas between program entry, program exit, and the end of kindergarten.

•On the ECLS–B math items, children also make progress during and following Head Start entry and can correctly answer more items. for example, while only 27 percent of children are able to demonstrate number and shape skills at Head Start entry, by their exit from the program 69 percent are able to. At the end of kindergarten, nearly all are able to do so.

Table C.2. Summary Statistics for FACES Child Assessment Data by Age for Children Taking the Assessment in English: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
3-Year-Olds				
PPVT-4 Standard Score[a]	696	86.9	92.6	96.1
WJ III: Letter-Word Identification Standard Score	640	94.2	101.0	108.8
WJ III: Spelling Standard Score	681	98.4	98.2	108.4
WJ III: Applied Problems Standard Score	616	93.1	92.3	97.7
WJ III: Word Attack Standard Score	724	NA	NA	113.9
ECLS–B Math IRT Score	727	6.1	12.5	19.4
ECLS–B Number/Shape Proficiency Probability Score	727	0.14	0.70	0.97
Combined ECLS–B/WJ III Applied Problems IRT Score	727	11.0	24.8	38.0
PPVT-4 Growth Score Value (GSV) Score	696	92.6	121.0	137.0
WJ III: Letter-Word Identification W Ability Score	640	298.5	339.1	393.5
WJ III: Spelling W Ability Score	681	337.7	383.5	429.2
WJ III: Applied Problems W Ability Score	616	368.8	403.9	432.1
WJ III: Word Attack W Ability Score	724	NA	NA	439.8
4-Year-Olds				
PPVT-4 Standard Score[a]	664	84.1	88.4	93.9
WJ III: Letter-Word Identification Standard Score	650	91.9	96.4	107.1
WJ III: Spelling Standard Score	666	89.5	94.4	108.0
WJ III: Applied Problems Standard Score	634	85.0	89.2	95.8
WJ III: Word Attack Standard Score	668	NA	NA	113.7
ECLS–B Math IRT Score	677	9.1	12.1	18.6
ECLS–B Number/Shape Proficiency Probability Score	677	0.40	0.68	0.96
Combined ECLS–B/WJ III Applied Problems IRT Score	677	17.8	24.1	36.4
PPVT-4 Growth Score Value (GSV) Score	664	105.7	116.7	134.3
WJ III: Letter-Word Identification W Ability Score	650	311.2	330.3	388.8
WJ III: Spelling W Ability Score	666	352.8	376.8	427.9
WJ III: Applied Problems W Ability Score	634	381.4	399.5	428.9
WJ III: Word Attack W Ability Score	668	NA	NA	438.9

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•When entering and exiting Head Start, both children who entered the program as 3-year-olds and those who entered as 4-year-olds score below national norms on many measures of language, literacy, and math development. In the area of letter-word knowledge, those who entered as 3-year-olds score above norms by Head Start exit. Meanwhile, those who entered as 4-year-olds continue to score below norms in this area at Head Start exit. Notably, at the end of kindergarten, both groups of children score above norms in the areas of letter-word knowledge, early writing, and word attack. In contrast, they score about one-third of a standard deviation below norms in receptive vocabulary at the end of kindergarten.

•In terms of absolute performance, both groups of children make progress across developmental areas between program entry, program exit, and the end of kindergarten.

•On the ECLS–B math items, children also make progress during and following Head Start enry and can correctly answer more items. for example, while only 14 percent of children who entered the program at age 3 are able to demonstrate number and shape skills at Head Start entry, by their exit from the program 70 percent are able to. The percentage increases from 40 percent to 68 percent among those who entered as 4-year-olds. At the end of kindergarten, nearly all children, regardless of age at Head Start entry, are able to do so.

Table C.3. Summary Statistics for FACES Child Assessment Data by Gender for Children Taking the Assessment in English: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
Girls				
PPVT-4 Standard Score[a]	658	87.0	91.8	95.3
WJ III: Letter-Word Identification Standard Score	628	94.2	100.9	108.4
WJ III: Spelling Standard Score	652	95.5	99.1	109.3
WJ III: Applied Problems Standard Score	610	89.7	91.6	97.2
WJ III: Word Attack Standard Score	669	NA	NA	114.3
ECLS–B Math IRT Score	673	8.0	12.7	19.2
ECLS–B Number/Shape Proficiency Probability Score	673	0.30	0.71	0.97
Combined ECLS–B/WJ III Applied Problems IRT Score	673	15.3	25.1	37.6
PPVT-4 Growth Score Value (GSV) Score	658	100.7	120.2	135.9
WJ III: Letter-Word Identification W Ability Score	628	306.3	338.7	392.3
WJ III: Spelling W Ability Score	652	348.0	385.2	430.4
WJ III: Applied Problems W Ability Score	610	376.4	402.9	431.3
WJ III: Word Attack W Ability Score	669	NA	NA	440.3
Boys				
PPVT-4 Standard Score[a]	702	84.1	89.3	94.7
WJ III: Letter-Word Identification Standard Score	662	91.8	96.3	107.4
WJ III: Spelling Standard Score	695	92.2	93.5	107.2
WJ III: Applied Problems Standard Score	640	87.9	89.8	96.2
WJ III: Word Attack Standard Score	723	NA	NA	113.4
ECLS–B Math IRT Score	731	7.3	12.0	18.8
ECLS–B Number/Shape Proficiency Probability Score	731	0.25	0.67	0.96
Combined ECLS–B/WJ III Applied Problems IRT Score	731	13.7	23.8	36.9
PPVT-4 Growth Score Value (GSV) Score	702	98.0	117.5	135.3
WJ III: Letter-Word Identification W Ability Score	662	304.1	330.4	389.8
WJ III: Spelling W Ability Score	695	343.3	375.0	426.7
WJ III: Applied Problems W Ability Score	640	374.6	400.2	429.5
WJ III: Word Attack W Ability Score	723	NA	NA	438.5

Source: Fall 2006 FACES Direct Child Assessment and Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•When entering and exiting Head Start, both boys and girls score below national norms on many measures of language, literacy, and math development. In the area of letter-word knowledge, girls score at norms by Head Start exit. Meanwhile, boys continue to score below norms in this area at Head Start exit. Notably, at the end of kindergarten, both boys and girls score above norms in the areas of letter-word knowledge, early writing, and word attack. In contrast, they score about one-third of a standard deviation below norms in receptive vocabulary and applied problems at the end of kindergarten.

•In terms of absolute performance, boys and girls both make progress across developmental areas between program entry, program exit, and the end of kindergarten.

•On the ECLS–B math items, children also make progress during and following Head Start enrollment and can correctly answer more items. for example, while only 30 percent of girls are able to demonstrate number and shape skills at Head Start entry, by their exit from the program 71 percent are able to. The percentage increases from 25 percent to 67 percent among boys. At the end of kindergarten, nearly all boys and girls children are able to do so.

Table C.4. Summary Statistics for FACES Child Assessment Data by Race/Ethnicity for Children Taking the Assessment in English: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
White, Non-Hispanic				
PPVT-4 Standard Score[a]	325	91.8	96.3	100.4
WJ III: Letter-Word Identification Standard Score	311	93.8	96.1	107.5
WJ III: Spelling Standard Score	318	92.7	94.0	107.9
WJ III: Applied Problems Standard Score	314	90.5	93.0	98.6
WJ III: Word Attack Standard Score	330	NA	NA	113.5
ECLS–B Math IRT Score	332	8.3	12.9	19.5
ECLS–B Number/Shape Proficiency Probability Score	332	0.33	0.72	0.97
Combined ECLS–B/WJ III Applied Problems IRT Score	332	15.9	25.5	38.1
PPVT-4 Growth Score Value (GSV) Score	325	106.7	124.9	141.1
WJ III: Letter-Word Identification W Ability Score	311	305.7	329.3	389.8
WJ III: Spelling W Ability Score	318	344.4	375.5	428.1
WJ III: Applied Problems W Ability Score	314	378.5	404.6	433.1
WJ III: Word Attack W Ability Score	330	NA	NA	438.9
African American, Non-Hispanic				
PPVT-4 Standard Score[a]	489	84.7	88.8	92.8
WJ III: Letter-Word Identification Standard Score	454	92.2	101.2	108.2
WJ III: Spelling Standard Score	483	92.4	96.0	108.5
WJ III: Applied Problems Standard Score	431	87.7	89.6	96.2
WJ III: Word Attack Standard Score	505	NA	NA	113.4
ECLS–B Math IRT Score	504	6.9	11.8	18.6
ECLS–B Number/Shape Proficiency Probability Score	504	0.21	0.66	0.95
Combined ECLS–B/WJ III Applied Problems IRT Score	504	12.8	23.4	36.5
PPVT-4 Growth Score Value (GSV) Score	489	96.5	117.1	133.6
WJ III: Letter-Word Identification W Ability Score	454	303.5	339.8	392.5
WJ III: Spelling W Ability Score	483	339.5	380.1	429.4
WJ III: Applied Problems W Ability Score	431	371.2	400.4	429.9
WJ III: Word Attack W Ability Score	505	NA	NA	438.8
Hispanic/Latino				
PPVT-4 Standard Score[a]	414	79.8	85.9	90.9
WJ III: Letter-Word Identification Standard Score	395	91.2	97.9	107.4
WJ III: Spelling Standard Score	408	95.2	98.3	108.5
WJ III: Applied Problems Standard Score	380	87.3	89.0	95.5
WJ III: Word Attack Standard Score	419	NA	NA	114.1

Scales	Number of cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
Hispanic/Latino *(continued)*				
ECLS–B Math IRT Score	427	7.4	12.1	18.9
ECLS–B Number/Shape Proficiency Probability Score	427	0.25	0.68	0.97
Combined ECLS–B/WJ III Applied Problems IRT Score	427	14.1	24.0	37.0
PPVT-4 Growth Score Value (GSV) Score	414	94.3	113.8	131.0
WJ III: Letter-Word Identification W Ability Score	395	303.5	332.7	388.1
WJ III: Spelling W Ability Score	408	350.6	383.5	427.9
WJ III: Applied Problems W Ability Score	380	374.8	399.1	428.0
WJ III: Word Attack W Ability Score	419	NA	NA	438.5
Other, Non-Hispanic				
PPVT-4 Standard Score[a]	130	86.7	92.2	97.8
WJ III: Letter-Word Identification Standard Score	128	97.4	99.5	109.3
WJ III: Spelling Standard Score	136	96.3	96.7	107.3
WJ III: Applied Problems Standard Score	123	90.6	91.0	95.8
WJ III: Word Attack Standard Score	137	NA	NA	114.9
ECLS–B Math IRT Score	139	8.7	12.9	19.1
ECLS–B Number/Shape Proficiency Probability Score	139	0.37	0.72	0.94
Combined ECLS–B/WJ III Applied Problems IRT Score	139	16.8	25.5	37.4
PPVT-4 Growth Score Value (GSV) Score	130	101.9	120.9	139.2
WJ III: Letter-Word Identification W Ability Score	128	312.8	337.3	398.0
WJ III: Spelling W Ability Score	136	352.3	381.3	428.9
WJ III: Applied Problems W Ability Score	123	380.0	402.2	430.4
WJ III: Word Attack W Ability Score	137	NA	NA	444.1

Source: Fall 2006 FACES Direct Child Assessment and Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•When entering and exiting Head Start, regardless of racial/ethnic background, children score below national norms on many measures of language, literacy, and math development. The one exception is the area of letter-word knowledge, where African American and Other race children score at norms by Head Start exit. At the end of kindergarten, all children score above norms in the areas of letter-word knowledge, early writing, and word attack. All but White children score about one-third of a standard deviation below norms in applied problems at the end of kindergarten. White children also score at national norms in the area of receptive vocabulary at that time point, and Other race children score near the mean. Meanwhile, African American and Hispanic/Latino children score about two-thirds of a standard deviation below the mean.

•In terms of absolute performance, regardless of racial/ethnic background, children make progress across developmental areas between program entry, program exit, and the end of kindergarten.

•On the ECLS–B math items, children also make progress during and following Head Start enrollment and can correctly answer more items. for example, while only 33 percent of White children are able to demonstrate number and shape skills at Head Start entry, by their exit from the program 72 percent are able to. The percentage increases from 21 percent to 66 percent among African American children, from 25 percent to 68 percent among Hispanic/Latino children, and from 37 percent to 72 percent among Other race children. At the end of kindergarten, nearly all children are able to do so.

Table C.5. Summary Statistics for FACES Child Assessment Data by Number of Family Risks for Children Taking the Assessment in English: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
0 Risks				
PPVT-4 Standard Score[a]	223	89.8	95.0	99.5
WJ III: Letter-Word Identification Standard Score	220	97.3	100.3	110.6
WJ III: Spelling Standard Score	224	96.1	98.5	109.2
WJ III: Applied Problems Standard Score	210	90.0	94.3	100.3
WJ III: Word Attack Standard Score	234	NA	NA	116.8
ECLS–B Math IRT Score	231	8.1	12.9	19.7
ECLS–B Number/Shape Proficiency Probability Score	231	0.32	0.72	0.96
Combined ECLS–B/WJ III Applied Problems IRT Score	231	15.4	25.6	38.4
PPVT-4 Growth Score Value (GSV) Score	223	103.0	123.0	139.7
WJ III: Letter-Word Identification W Ability Score	220	308.2	336.3	396.4
WJ III: Spelling W Ability Score	224	347.2	382.3	429.2
WJ III: Applied Problems W Ability Score	210	375.2	405.5	435.0
WJ III: Word Attack W Ability Score	234	NA	NA	443.9
1 Risk				
PPVT-4 Standard Score[a]	461	85.3	90.3	95.3
WJ III: Letter-Word Identification Standard Score	438	94.9	100.2	108.0
WJ III: Spelling Standard Score	461	93.3	97.6	109.6
WJ III: Applied Problems Standard Score	430	89.2	90.6	97.2
WJ III: Word Attack Standard Score	478	NA	NA	113.0
ECLS–B Math IRT Score	479	8.0	12.6	19.6
ECLS–B Number/Shape Proficiency Probability Score	479	0.29	0.72	1.0
Combined ECLS–B/WJ III Applied Problems IRT Score	479	15.2	25.1	38.2
PPVT-4 Growth Score Value (GSV) Score	461	99.6	118.9	136.4
WJ III: Letter-Word Identification W Ability Score	438	308.6	338.3	392.5
WJ III: Spelling W Ability Score	461	345.6	383.2	431.5
WJ III: Applied Problems W Ability Score	430	377.0	402.2	431.8
WJ III: Word Attack W Ability Score	478	NA	NA	439.1
2 or More Risks				
PPVT-4 Standard Score[a]	577	83.4	88.1	92.5
WJ III: Letter-Word Identification Standard Score	544	89.1	96.4	106.3
WJ III: Spelling Standard Score	569	93.2	94.4	107.0
WJ III: Applied Problems Standard Score	522	87.6	89.1	94.4
WJ III: Word Attack Standard Score	582	NA	NA	112.7
ECLS–B Math IRT Score	593	7.0	11.7	18.2
ECLS–B Number/Shape Proficiency Probability Score	593	0.23	0.64	1.0
Combined ECLS–B/WJ III Applied Problems IRT Score	593	13.1	23.2	35.6

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
2 or More Risks *(continued)*				
PPVT-4 Growth Score Value (GSV) Score	577	96.7	116.3	132.9
WJ III: Letter-Word Identification W Ability Score	544	300.1	330.1	386.3
WJ III: Spelling W Ability Score	569	344.1	376.7	426.2
WJ III: Applied Problems W Ability Score	522	373.2	398.9	426.7
WJ III: Word Attack W Ability Score	582	NA	NA	436.4

Source: Fall 2006 FACES Direct Child Assessment and Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

! Interpret data with caution. Standard error is large due to small sample size.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•When entering and exiting Head Start, regardless of number of family risks, children score below national norms on many measures of language, literacy, and math development. The one exception is the area of letter-word knowledge, where children with one or no family risks score at norms by Head Start exit. These children also score near norms in early writing by program exit. At the end of kindergarten, all children score above norms in the areas of letter-word knowledge, early writing, and word attack. Children with no family risks also score at or near norms in applied problems and receptive vocabulary at this time point. Children with 1 or more family risks score about one-third of a standard deviation below norms in these areas at kindergarten exit.

•In terms of absolute performance, regardless of number of family risks, children make progress across developmental areas between program entry, program exit, and the end of kindergarten.

•On the ECLS–B math items, children also make progress during and following Head Start enrollment and can correctly answer more items. for example, while only 32 percent of children with no family risks are able to demonstrate number and shape skills at Head Start entry, by their exit from the program 72 percent are able to. The percentage increases from 29 percent to 72 percent among children with one family risk, and from 23 percent to 64 percent among children with two or more family risks. At the end of kindergarten, nearly all children are able to do so.

Table C.6. Summary Statistics for FACES Child Assessment Data for Children Taking the Assessment in English: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit–Kindergarten Change Mean	
PPVT-4 Standard Score[a]	1629	87.8	93.4	5.6	***
WJ III: Letter-Word Identification Standard Score	1630	97.7	107.2	9.5	***
WJ III: Spelling Standard Score	1641	95.9	107.4	11.5	***
WJ III: Applied Problems Standard Score	1611	88.9	95.4	6.5	***
WJ III: Word Attack Standard Score	1621	NA	113.5	NA	
ECLS–B Math IRT Score	1647	12.0	18.8	6.8	***
ECLS–B Number/Shape Proficiency Probability Score	1647	0.66	0.96	0.3	***
Combined ECLS–B/WJ III Applied Problems IRT Score	1647	23.7	36.7	13.0	***
PPVT-4 Growth Score Value (GSV) Score	1629	115.7	133.7	17.9	***
WJ III: Letter-Word Identification W Ability Score	1630	332.4	388.5	56.0	***
WJ III: Spelling W Ability Score	1641	379.1	426.8	47.8	***
WJ III: Applied Problems W Ability Score	1611	398.6	428.2	29.6	***
WJ III: Word Attack W Ability Score	1621	NA	438.4	NA	

Source: Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

*p<.05; **p<.01; ***p<.001.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring Kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. Thus, an increase in a child's standard score towards the mean of 100 indicates that the child is making progress relative to same-age peers or closing the gap with their peers.

The ECLS-B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS-B items and all 44 of the FACES (22 WJ plus 22 ECLS-B) items, respectively. The ECLS-B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year). These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. Changes in these scores across waves indicate that the child is progressing developmentally and their skills are increasing in absolute terms. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•At Head Start exit, children score below norms on measures of language, literacy, and mathematics development, although they score close to norms in letter-word knowledge at this time point (97.7). However, across areas, children make progress toward norms between the end of Head Start and the spring of the kindergarten year. In fact, children gain almost 6 standard score points in English receptive vocabulary, 10 points in letter-word knowledge, 12 points in early writing, and 7 points in applied problems during this period. By the end of kindergarten they score above the national average in letter-word knowledge (107.2), early writing (107.4), and word attack skills (113.5). Although children make progress toward norms in their receptive vocabulary and applied problems, they still score about one-third of a standard deviation below norms in these areas (93.4 and 95.4, respectively) in spring of the kindergarten year. Children score about 1 standard score point higher in Spanish receptive vocabulary by the spring of kindergarten.

•In terms of absolute performance, children make progress across developmental areas between the end of Head Start and end of kindergarten.

•On the ECLS–B math items, children also make progress between Head Start exit and end of kindergarten and can correctly answer more items. for example, while about two-thirds of children are able to demonstrate number and shape skills at Head Start exit, nearly all are able to at the end of kindergarten.

Table C.7. Summary Statistics for FACES Child Assessment Data by Age for Children Taking the Assessment in English: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean	
3-Year-Olds					
PPVT-4 Standard Score[a]	889	89.4	94.0	4.6	***
WJ III: Letter-Word Identification Standard Score	892	99.3	107.4	8.1	***
WJ III: Spelling Standard Score	896	97.5	107.5	10.0	***
WJ III: Applied Problems Standard Score	882	89.6	96.0	6.3	***
WJ III: Word Attack Standard Score	888	NA	113.3	NA	
ECLS–B Math IRT Score	900	12.1	19.1	7.1	***
ECLS–B Number/Shape Proficiency Probability Score	900	0.67	0.96	0.29	***
Combined ECLS–B/WJ III Applied Problems IRT Score	900	23.9	37.4	13.4	***
PPVT-4 Growth Score Value (GSV) Score	889	117.3	134.4	17.1	***
WJ III: Letter-Word Identification W Ability Score	892	335.3	389.0	53.7	***
WJ III: Spelling W Ability Score	896	381.7	427.0	45.4	***
WJ III: Applied Problems W Ability Score	882	399.4	429.0	29.6	***
WJ III: Word Attack W Ability Score	888	NA	438.2	NA	
4-Year-Olds					
PPVT-4 Standard Score[a]	740	86.1	92.7	6.6	***
WJ III: Letter-Word Identification Standard Score	738	95.9	107.0	11.0	***
WJ III: Spelling Standard Score	745	94.2	107.4	13.2	***
WJ III: Applied Problems Standard Score	729	88.1	94.9	6.7	***
WJ III: Word Attack Standard Score	733	NA	113.7	NA	
ECLS–B Math IRT Score	747	11.9	18.4	6.5	***
ECLS–B Number/Shape Proficiency Probability Score	747	0.65	0.95	0.3	***
Combined ECLS–B/WJ III Applied Problems IRT Score	747	23.6	36.1	12.5	***
PPVT-4 Growth Score Value (GSV) Score	740	114.0	132.9	18.9	***
WJ III: Letter-Word Identification W Ability Score	738	329.4	387.9	58.6	***
WJ III: Spelling W Ability Score	745	376.3	426.6	50.4	***
WJ III: Applied Problems W Ability Score	729	397.7	427.3	29.7	***
WJ III: Word Attack W Ability Score	733	NA	438.6	NA	

Source: Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. Thus, an increase in a child's standard score towards the mean of 100 indicates that the child is making progress relative to same-age peers or closing the gap with their peers.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year). These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. Changes in these scores across waves indicate that the child is progressing developmentally and their skills are increasing in absolute terms. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•At Head Start exit, regardless of age at Head Start entry, children score below national norms on measures of language and math development. However, children who entered the program at age 3 score near norms in the areas of letter-word knowledge and early writing at this time point. Across areas, children make progress toward norms between the end of Head Start and the end of kindergarten, with both groups of children scoring above norms in letter-word knowledge, early writing, and word attack at the end of kindergarten. Children who entered the program as 4-year-olds make greater progress towards norms during this time, however. In fact, these children gain almost 7 standard score points in the area of receptive vocabulary (compared to 5 points for those who entered at age 3), 11 points in letter-word knowledge (versus 8), 13 points in early writing (versus 8), and 7 points in applied problems (versus 6) during this period. There are differences in the patterns of children's Spanish receptive vocabulary, with children who entered the program at age 3 showing declines in this area between Head Start exit and the end of kindergaten, and those who entered as 4-year-olds showing no statistically significant changes relative to peers. As noted above, the Spanish skills reported here are for only a subgroup of children from Spanish speaking homes—those who passed the screener and were assessed in English at reported time points.

•In terms of absolute performance, both groups of children make progress across developmental areas between Head Start exit and end of kindergarten.

•On the ECLS–B math items, children also make progress between Head Start exit and end of kindergarten and can correctly answer more items. For example, while about two-thirds of children are able to demonstrate number and shape skills at Head Start exit, nearly all are able to at the end of kindergarten. This is true regardless of children's age at entry to the Head Start program.

Table C.8. Summary Statistics for FACES Child Assessment Data by Gender for Children Taking the Assessment in English: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean
Girls				
PPVT-4 Standard Score[a]	791	88.7	93.2	4.6 ***
WJ III: Letter-Word Identification Standard Score	796	99.7	107.7	8.0 ***
WJ III: Spelling Standard Score	798	98.6	108.4	9.8 ***
WJ III: Applied Problems Standard Score	784	89.4	95.6	6.2 ***
WJ III: Word Attack Standard Score	792	NA	113.6	NA
ECLS–B Math IRT Score	800	12.3	18.9	6.6 ***
ECLS–B Number/Shape Proficiency Probability Score	800	0.68	0.96	0.28 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	800	24.3	37.0	12.7 ***
PPVT-4 Growth Score Value (GSV) Score	791	116.7	133.6	16.9 ***
WJ III: Letter-Word Identification W Ability Score	796	336.2	389.9	53.7 ***
WJ III: Spelling W Ability Score	798	384.2	428.7	44.5 ***
WJ III: Applied Problems W Ability Score	784	399.3	428.6	29.3 ***
WJ III: Word Attack W Ability Score	792	NA	438.6	NA
Boys				
PPVT-4 Standard Score[a]	838	87.0	93.5	6.5 ***
WJ III: Letter-Word Identification Standard Score	834	95.8	106.7	10.9 ***
WJ III: Spelling Standard Score	843	93.3	106.5	13.1 ***
WJ III: Applied Problems Standard Score	827	88.5	95.2	6.8 ***
WJ III: Word Attack Standard Score	829	NA	113.5	NA
ECLS–B Math IRT Score	847	11.7	18.7	7.0 ***
ECLS–B Number/Shape Proficiency Probability Score	847	0.64	0.95	0.31 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	847	23.2	36.5	13.3 ***
PPVT-4 Growth Score Value (GSV) Score	838	114.8	133.8	18.9 ***
WJ III: Letter-Word Identification W Ability Score	834	328.9	387.1	58.3 ***
WJ III: Spelling W Ability Score	843	374.3	425.1	50.8 ***
WJ III: Applied Problems W Ability Score	827	397.9	427.8	29.9 ***
WJ III: Word Attack W Ability Score	829	NA	438.2	NA

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. Thus, an increase in a child's standard score towards the mean of 100 indicates that the child is making progress relative to same-age peers or closing the gap with their peers.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year). These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. Changes in these scores across waves indicate that the child is progressing developmentally and their skills are increasing in absolute terms. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•Both boys and girls score below national norms on measures of language and math development at Head Start exit. Notably, however, girls score at or near norms in the areas of letter-word knowledge (99.7) and early writing (98.6) at this time point. In addition, across areas, girls score closer to same-age peers than do boys in the spring of their prekindergarten year. Across areas, children make progress toward norms between Head Start exit and the end of kindergarten, with both boys and girls scoring above norms in letter-word knowledge (106.7 and 107.7, respectively), early writing (106.5 and 108.4), and word attack (113.5 and 113.6) at the end of kindergarten. Notably, with the gains boys make in early writing during this time (+13.1 standard score points), they close the gap with girls, scoring similarly to them, by the end of kindergarten.

•In terms of absolute performance, both boys and girls make progress across developmental areas between Head Start exit and end of kindergarten.

•On the ECLS–B math items, children also make progress between Head Start exit and end of kindergarten and can correctly answer more items. For example, while 68 percent of girls are able to demonstrate number and shape skills at Head Start exit, 96 percent are able to at the end of kindergarten. This percentage increases from about 64 percent to 95 percent for boys.

Table C.9. Summary Statistics for FACES Child Assessment Data by Race/Ethnicity for Children Taking the Assessment in English: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean
White, Non-Hispanic				
PPVT-4 Standard Score[a]	339	95.8	100.0	4.2 ***
WJ III: Letter-Word Identification Standard Score	342	95.6	107.6	12.0 ***
WJ III: Spelling Standard Score	342	93.5	107.4	13.9 ***
WJ III: Applied Problems Standard Score	339	92.6	98.2	5.6 ***
WJ III: Word Attack Standard Score	340	NA	113.7	NA
ECLS–B Math IRT Score	344	12.8	19.5	6.7 ***
ECLS–B Number/Shape Proficiency Probability Score	344	0.71	0.96	0.25 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	344	25.4	38.0	12.6 ***
PPVT-4 Growth Score Value (GSV) Score	339	124.3	140.7	16.3 ***
WJ III: Letter-Word Identification W Ability Score	342	328.4	389.7	61.4 ***
WJ III: Spelling W Ability Score	342	374.4	427.2	52.7 ***
WJ III: Applied Problems W Ability Score	339	403.9	432.5	28.6 ***
WJ III: Word Attack W Ability Score	340	NA	439.3	NA
African American, Non-Hispanic				
PPVT-4 Standard Score[a]	519	88.4	92.7	4.3 ***
WJ III: Letter-Word Identification Standard Score	519	101.1	108.1	6.9 ***
WJ III: Spelling Standard Score	524	95.8	108.2	12.4 ***
WJ III: Applied Problems Standard Score	519	87.7	94.9	7.1 ***
WJ III: Word Attack Standard Score	519	NA	113.4	NA
ECLS–B Math IRT Score	525	11.7	18.6	6.9 ***
ECLS–B Number/Shape Proficiency Probability Score	525	0.65	0.95	0.30 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	525	23.3	36.4	13.1 ***
PPVT-4 Growth Score Value (GSV) Score	519	116.6	133.4	16.8 ***
WJ III: Letter-Word Identification W Ability Score	519	338.9	390.8	51.9 ***
WJ III: Spelling W Ability Score	524	379.2	428.2	49.0 ***
WJ III: Applied Problems W Ability Score	519	397.0	427.5	30.5 ***
WJ III: Word Attack W Ability Score	519	NA	438.5	NA
Hispanic/Latino				
PPVT-4 Standard Score[a]	624	81.2	88.6	7.4 ***
WJ III: Letter-Word Identification Standard Score	622	96.4	106.2	9.8 ***
WJ III: Spelling Standard Score	625	97.6	107.0	9.4 ***
WJ III: Applied Problems Standard Score	612	86.8	94.0	7.2 ***
WJ III: Word Attack Standard Score	618	NA	113.2	NA

Scales	Number of cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean
ECLS—B Math IRT Score	628	11.4	18.4	7.0 ***
ECLS—B Number/Shape Proficiency Probability Score	628	0.62	0.97	0.35 ***
Combined ECLS—B/WJ3 Applied Problems IRT Score	628	22.6	36.0	13.4 ***
PPVT-4 Growth Score Value (GSV) Score	624	108.3	128.1	19.7 ***
WJ III: Letter-Word Identification W Ability Score	622	329.6	384.5	54.9 ***
WJ III: Spelling W Ability Score	625	381.8	425.3	43.5 ***
WJ III: Applied Problems W Ability Score	612	395.3	425.5	30.2 ***
WJ III: Word Attack W Ability Score	618	NA	436.2	NA
Other, Non-Hispanic				
PPVT-4 Standard Score[a]	145	90.4	96.2	5.8 ***
WJ III: Letter-Word Identification Standard Score	145	98.1	107.6	9.5 ***
WJ III: Spelling Standard Score	148	95.7	106.7	11.0 ***
WJ III: Applied Problems Standard Score	139	90.3	95.2	4.9 ***
WJ III: Word Attack Standard Score	143	NA	114.7	NA
ECLS–B Math IRT Score	148	12.6	18.9	6.3 ***
ECLS–B Number/Shape Proficiency Probability Score	148	0.70	0.93	0.23 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	148	24.9	37.0	12.1 ***
PPVT-4 Growth Score Value (GSV) Score	145	118.8	137.3	18.4 ***
WJ III: Letter-Word Identification W Ability Score	145	334.7	393.7	59.0 ***
WJ III: Spelling W Ability Score	148	379.5	427.9	48.3 ***
WJ III: Applied Problems W Ability Score	139	401.0	429.3	28.4 ***
WJ III: Word Attack W Ability Score	143	NA	444.0	NA

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

! Interpret data with caution. Standard error is large due to small sample size.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. Thus, an increase in a child's standard score towards the mean of 100 indicates that the child is making progress relative to same-age peers or closing the gap with their peers.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS-B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. Changes in these scores across waves indicate that the child is progressing developmentally and their skills are increasing in absolute terms. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•At Head Start exit, many children score below norms on measures of language and math development. However, African American and Other race children score at or near norms in the area of letter-word knowledge (101.1 and 98.1, respectively), while Hispanic/Latino children score near norms in early writing at this time point (97.6). Across areas, all children, regardless of race/ethnicity make progress toward norms between Head Start exit and the end of kindergarten, with all children scoring above norms in letter-word knowledge, early writing, and word attack at the end of kindergarten. However, only White children score at or near norms in receptive vocabulary (100.0) and applied problems (98.2) at this time point. Although Hispanic/Latino children demonstrate large gains in receptive vocabulary between Head Start exit and the spring of the kindergarten year (+7.4 standard score points), they are still performing behind other racial/ethnic groups and national norms in this area at the end of kindergarten (88.6).

•In terms of absolute performance, regardless of race/ethnicity, children make progress across developmental areas between Head Start exit and end of kindergarten.

•On the ECLS–B math items, children also make progress between Head Start exit and end of kindergarten and can correctly answer more items. For example, while at least two-thirds of children are able to demonstrate number and shape skills at Head Start exit, nearly all are able to at the end of kindergarten. This pattern is true regardless of race/ethnicity.

Table C.10. Summary Statistics for FACES Child Assessment Data by Number of Family Risks for Children Taking the Assessment in English: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean
0 Risks				
PPVT-4 Standard Score[a]	253	93.4	98.3	4.9 ***
WJ III: Letter-Word Identification Standard Score	255	99.4	110.5	11.0 ***
WJ III: Spelling Standard Score	257	98.1	108.8	10.8 ***
WJ III: Applied Problems Standard Score	255	92.0	99.0	6.9 ***
WJ III: Word Attack Standard Score	258	NA	116.8	NA
ECLS–B Math IRT Score	258	12.7	19.6	6.9 ***
ECLS–B Number/Shape Proficiency Probability Score	258	0.70	0.96	0.26 ***
Combined ECLS–B/WJIII Applied Problems IRT Score	258	25.1	38.2	13.1 ***
PPVT-4 Growth Score Value (GSV) Score	253	121.1	138.3	17.2 ***
WJ III: Letter-Word Identification W Ability Score	255	334.5	395.5	61.0 ***
WJ III: Spelling W Ability Score	257	381.5	428.5	47.0 ***
WJ III: Applied Problems W Ability Score	255	401.8	432.6	30.8 ***
WJ III: Word Attack W Ability Score	258	NA	443.5	NA
1 Risk				
PPVT-4 Standard Score[a]	562	87.6	93.9	6.3 ***
WJ III: Letter-Word Identification Standard Score	562	98.8	107.5	8.7 ***
WJ III: Spelling Standard Score	563	97.4	109.1	11.7 ***
WJ III: Applied Problems Standard Score	552	89.3	96.7	7.4 ***
WJ III: Word Attack Standard Score	561	NA	113.0	NA
ECLS-B Math IRT Score	566	12.3	19.4	7.1 ***
ECLS-B Number/Shape Proficiency Probability Score	566	0.69	0.96	0.27 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	566	24.3	37.8	13.5 ***
PPVT-4 Growth Score Value (GSV) Score	562	115.8	134.5	18.7 ***
WJ III: Letter-Word Identification W Ability Score	562	335.2	390.2	55.0 ***
WJ III: Spelling W Ability Score	563	382.7	430.4	47.7 ***
WJ III: Applied Problems W Ability Score	552	399.8	430.5	30.7 ***
WJ III: Word Attack W Ability Score	561	NA	438.4	NA
2 or More Risks				
PPVT-4 Standard Score[a]	705	85.0	90.7	5.7 ***
WJ III: Letter-Word Identification Standard Score	703	95.9	105.3	9.4 ***
WJ III: Spelling Standard Score	711	93.9	105.6	11.7 ***
WJ III: Applied Problems Standard Score	695	87.1	92.6	5.5 ***
WJ III: Word Attack Standard Score	694	NA	112.3	NA

Scales	Number of cases	Head Start Exit exit	Spring Kindergarten Mean	Head Start Exit – Kindergarten Change Mean
ECLS–B Math IRT Score	712	11.3	17.8	6.5 ***
ECLS–B Number/Shape Proficiency Probability Score	712	0.61	0.95	0.33 ***
Combined ECLS–B/WJ III Applied Problems IRT Score	712	22.5	35.0	12.6 ***
PPVT-4 Growth Score Value (GSV) Score	705	112.7	130.7	18.0 ***
WJ III: Letter-Word Identification W Ability Score	703	328.8	383.2	54.5 ***
WJ III: Spelling W Ability Score	711	375.2	423.4	48.2 ***
WJ III: Applied Problems W Ability Score	695	395.8	423.9	28.1 ***
WJ III: Word Attack W Ability Score	694	NA	435.2	NA

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring Kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. Thus, an increase in a child's standard score towards the mean of 100 indicates that the child is making progress relative to same-age peers or closing the gap with their peers.

The ECLS–B IRT scores represent estimates of the number of items children would have answered correctly if they had taken all 22 of the ECLS–B items and all 44 of the FACES (22 WJ plus 22 ECLS–B) items, respectively. The ECLS–B number/shape proficiency probability scores indicate the probability that a child would have passed the proficiency level and can be interpreted as the percent of the population who have "mastered" this skill or skill set (e.g., .25 x 100 = 25% of Head Start children are able to demonstrate these skills at the start of the program year.) These scores can take on any value from zero to one.

W scores allow for measurement of change or growth in performance on the same scale over time. Like raw scores, W scores are an indicator of absolute rather than relative performance. Changes in these scores across waves indicate that the child is progressing developmentally and their skills are increasing in absolute terms. The WJ W scale is centered on 500, which approximates the average score of a 10-year-old child. PPVT-4 Growth Score Value (GSV) scores are similar to W scores and can range from 12 to 271.

[a] Across waves, all children were administered the PPVT-4, regardless of home language or performance on the language screener. Scores in this table are only presented for those assessed in English and with a valid score across waves. 372 children did not achieve a basal on the PPVT-4 for at least one wave, and 435 were assessed in Spanish for at least one wave. These children are excluded from estimates in the table.

NA = Not Available

•At Head Start exit, many children score below national norms on measures of language and math development. However, children with no family risks and those with 1 family risk score near norms in the areas of letter-word knowledge and early writing at this time point. Across areas, children make progress toward norms between Head Start exit and the end of kindergarten, with all children scoring above norms in letter-word knowledge, early writing, and word attack at the end of kindergarten. Only children with no family risks score near norms in receptive vocabulary and applied problems at this time point. Notably, only children with 2 or more family risks make increases relative to peers in their Spanish receptive vocabulary.

•In terms of absolute performance, regardless of number of family risks, children make progress across developmental areas between Head Start exit and end of kindergarten.

•On the ECLS–B math items, children also make progress between the Head Start exit and end of kindergarten and can correctly answer more items. For example, while at least 69 percent of children with no or one family risk are able to demonstrate number and shape skills at Head Start exit, nearly all are able to at the end of kindergarten. A slightly lower percentage of children with two or more risks is able to demonstrate these skills at Head Start exit (61 percent).

Table C.11. Head Start Exit and Spring Kindergarten PPVT-4 Standard Score Distribution by Head Start Entry Standard Score Distribution: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Children)			
PPVT-4 Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	29.1	5.2	0.4	0.7
71 to 85	49.7	45.8	17.7	0.7
86 to 100	15.5	38.4	55.0	20.7
100 or Higher	5.1	9.8	26.3	77.4
Spring Kindergarten				
70 or Lower	7.2	0.7	0.3	0.0
71 to 85	52.4	27.4	7.8	2.0
86 to 100	32.6	57.5	49.7	22.3
100 or Higher	7.8	14.1	42.3	75.4
Total[a]	13.9	34.6	34.3	15.6

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children whose scores fell into each of the groups at Head Start entry. Two percent of children did not achieve a basal on the PPVT-4 at Head Start entry and are excluded from this table.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• Many children make progress in receptive vocabulary during Head Start and the year following Head Start, regardless of their skills at program entry. A majority of children who enter the program with receptive vocabulary skills at least two standard deviations below norms make progress during this time. For example, only 29 percent of those who enter with English receptive vocabulary skills of at least two standard deviations below norms have skills of similarly low levels at Head Start exit, and less than 10 percent have skills that remain that low in the spring of kindergarten. About half of those who enter with English receptive vocabulary skills at least two standard deviations below norms have vocabulary scores between one and two standard deviations below norms at Head Start exit and the end of kindergarten. Few children scoring more than one standard deviation below norms at Head Start entry make enough progress to score at or above norms by the spring of kindergarten.

• About 75 percent of children who enter Head Start with receptive vocabulary skills at or above their peers continue to perform at this level at the end of Head Start and in the spring of kindergarten.

Table C.12. Head Start Exit and Spring Kindergarten WJ III Letter-Word Standard Score Distribution by Head Start Entry Standard Score Distribution: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Children)			
WJ III Letter-Word Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	0.0	7.0	2.3	0.3
71 to 85	16.3	27.8	16.1	4.2
86 to 100	37.1	43.9	31.8	15.1
100 or Higher	46.6	21.3	49.9	80.5
Spring Kindergarten				
70 or Lower	0.0	0.8	0.3	0.0
71 to 85	0.9	8.2	4.1	1.5
86 to 100	22.1	25.7	14.6	7.7
100 or Higher	76.9	65.4	81.0	90.8
Total[a]	10.6	25.1	32.7	31.6

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children whose scores fell into each of the groups at Head Start entry.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• Many children scoring below norms at Head Start entry show progress during Head Start and the year following Head Start. At least two-thirds of children scoring below norms at Head Start entry score at or above norms in this area by the end of kindergarten, including those who scored more than two standard deviations below norms at entry. This pattern differs from what we see in the area of receptive vocabulary, where not as many children make such progress.

• Children who enter the Head Start program with letter-word knowledge skills at or above norms maintain their standing relative to peers during Head Start and the year following Head Start. For example, at Head Start exit, 81 percent score at or above norms, and 91 percent also do so in the spring of kindergarten.

Table C.13. Head Start Exit and Spring Kindergarten WJ III Spelling Standard Score Distribution by Head Start Entry Standard Score Distribution: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Children)			
WJ III Spelling Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	6.3	11.6	3.0	3.7
71 to 85	30.4	23.8	12.9	10.0
86 to 100	35.2	37.2	37.0	32.2
100 or Higher	28.1	27.4	47.1	54.1
Spring Kindergarten				
70 or Lower	3.9	1.9	0.5	0.2
71 to 85	1.9	4.6	3.8	2.8
86 to 100	26.8	18.2	18.5	13.4
100 or Higher	67.4	75.4	77.1	83.6
Total[a]	7.5	22.3	34.4	35.9

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children whose scores fell into each of the groups at Head Start entry.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• As we see in the area of letter-word knowlege, many children scoring below norms at Head Start entry show progress through the spring of kindergarten. At least two-thirds of children scoring below norms at Head Start entry score at or above norms in this area by the end of kindergarten, including those who score more than two standard deviations below

• More than 75 percent of children who enter the Head Start program with early writing skills at or above norms perform at this level through the spring of kindergarten. In the spring of kindergarten, 84 percent score at or above norms.

Table C.14. Head Start Exit and Spring Kindergarten WJ III Applied Problems Standard Score Distribution by Head Start Entry Standard Score Distribution: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Children)			
WJ III Applied Problems Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	10.9	6.8	5.1	2.5
71 to 85	34.5	41.4	25.0	11.1
86 to 100	45.6	40.2	52.5	41.8
100 or Higher	9.0	11.6	17.4	44.6
Spring Kindergarten				
70 or Lower	1.0	3.6	0.5	1.3
71 to 85	32.9	25.6	24.3	7.9
86 to 100	33.5	39.1	37.9	30.3
100 or Higher	32.6	31.8	37.3	60.5
Total[a]	15.3	23.9	33.0	27.7

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children whose scores fell into each of the groups at Head Start entry.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• As we see in other areas, many children who enter with fewer applied problems skills show progress through the spring of kindergarten. About one-third of children scoring below norms at Head Start entry score at or above norms in this area by the end of kindergarten, including those who score more than two standard deviations below norms at entry.

• Children who enter the Head Start program with applied problems skills at or above norms generally maintain their standing relative to peers through the spring of kindergarten, with about two-thirds remaining at or above norms at that time point.

Table C.15. Head Start Exit and Spring Kindergarten PPVT-4 Standard Score Distribution by Head Start Entry Standard Score Distribution for Dual Language Learners (DLLs) from Spanish-Language Homes: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Spanish-Speaking DLL Children)			
TVIP Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	30.3	18.1	18.6	12.0
71 to 85	51.6	41.1	22.9	15.6
86 to 100	16.3	37.2	37.6	56.6
100 or Higher	1.7	3.5	20.9	15.8
Spring Kindergarten				
70 or Lower	36.2	43.3	20.7	33.2
71 to 85	45.1	24.4	36.9	17.1
86 to 100	18.7	30.3	36.5	39.7
100 or Higher	0.0	2.1	5.9	10.0
Total[a]	9.9	34.9	38.0	17.3

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who are dual language learners (DLLs) who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children who are dual language learners (DLLs) from Spanish-language homes whose scores fell into each of the groups at Head Start entry. Eighteen percent of these children did not achieve a basal on the PPVT-4 at Head Start entry and are excluded from this table.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• Many Spanish-speaking DLLs who enter with English receptive vocabulary skills below norms show progress through the spring of kindergarten. For example,in the spring of kindergarten, 42 percent of those who score more than two standard deviations below norms at entry score between one and two standard deviations below norms in the spring of kindergarten and another 8 percent score within one standard deviation of norms.

• Spanish-speaking DLLs who enter the Head Start program with English receptive vocabulary skills within one standard deviation of norms generally maintain their standing relative to peers through the spring of kindergarten. Forty percent have comparable skills in the spring of kindergarten, and another 36 percent score at or above norms at this time point.

• Across groups, few Spanish-speaking DLLs have English receptive vocabulary skills at or above norms at Head Start exit or in the spring of kindergarten. It is important to keep in mind that estimates for some groups are based on small numbers of DLL children.

Table C.16. Head Start Exit and Spring Kindergarten TVIP Standard Score Distribution by Head Start Entry Standard Score Distribution for Dual Language Learners (DLLs) from Spanish-Language Homes: Fall 2006 – Spring 2008 or Spring 2009

	Head Start Entry (Percent of Spanish-Speaking DLL Children)			
TVIP Standard Score	70 or Lower	71 to 85	86 to 100	100 or Higher
Head Start Exit				
70 or Lower	30.3	18.1	18.6	12.0
71 to 85	51.6	41.1	22.9	15.6
86 to 100	16.3	37.2	37.6	56.6
100 or Higher	1.7	3.5	20.9	15.8
Spring Kindergarten				
70 or Lower	36.2	43.3	20.7	33.2
71 to 85	45.1	24.4	36.9	17.1
86 to 100	18.7	30.3	36.5	39.7
100 or Higher	0.0	2.1	5.9	10.0
Total[a]	9.9	34.9	38.0	17.3

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who are dual language learners (DLLs) who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

[a] Percentages in this row reflect the percentage of children who are dual language learners (DLLs) from Spanish-language homes whose scores fell into each of the groups at Head Start entry.

Standard scores allow for comparisons of an individual's performance to others of the same age (or grade). These scores have a mean of 100 and a standard deviation of 15. In this table, reported standard scores have been categorized using standard deviation units: scores less than or equal to 70 (at least two standard deviations below norms), 71 to 85 (between one and two standard deviations below norms), 86 to 100 (within one standard deviation of norms), and greater than or equal to 100 (at or above norms).

• Many Spanish-speaking DLLs who enter with Spanish receptive vocabulary skills below norms maintain similar standing relative to peers during this time period or move away from norms. For example, about one-third of those who score more than two standard deviations below norms at entry score at similar levels in the spring of kindergarten. Thirty-seven of those who enter with Spanish receptive vocabulary scores within one standard deviation of norms have between one and two standard deviations below norms in the spring of kindergarten, and another 21 percent have scores less than or equal to two standard deviations below norms.

• Spanish-speaking DLLs who enter the Head Start program with Spanish receptive vocabulary skills at or above norms do not maintain their standing relative to peers through the spring of kindergarten. Sixteen percent have comparable skills at Head Start exit and only 10 percent do in the spring of kindergarten.

• Across groups, few Spanish-speaking DLLs have Spanish receptive vocabulary skills at or above norms at Head Start exit or in the spring of kindergarten. It is important to keep in mind that estimates for some groups are based on small numbers of DLL children.

Table C.17. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
Teacher Report				
Social Skills	1313	16.0	18.4	18.0
Total Behavior Problems	1320	6.7	5.2	6.7
Aggressive Behavior	1319	1.5	1.2	1.4
Hyperactive Behavior	1320	2.8	2.1	2.9
Withdrawn Behavior	1319	1.6	1.3	1.7
PLBS – Total[a]	1320	51.3	53.5	52.6
PLBS – Attitude toward Learning [a]	1320	51.1	52.7	52.9
PLBS – Attitude toward Learning[a]	1320	51.1	53.3	52.4
PLBS – Competence Motivation[a]	1320	51.3	53.7	51.9
Parent Report				
Social Skills/Positive Approaches to Learning	1542	11.9	12.5	12.8
Total Behavior Problems	1540	5.7	5.3	5.3
Assessor Rating				
Leiter Cognitive/Social Raw Score	1771	56.0	59.1	65.5
Leiter Cognitive/Social Standard Score[b]	1771	90.6	90.8	96.1
Leiter Cognitive/Social Standard Score[b]	1771	19.9	21.2	23.8
Organization/Impulse Control	1771	15.7	17.0	19.1
Activity Level	1771	8.4	8.7	9.5
Sociability	1771	12.0	12.3	13.1

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

•Head Start teachers report children as demonstrating more social skills, fewer problem behaviors, and more positive approaches to learning on average at Head Start exit than at Head Start entry. They also report children as demonstrating fewer hyperactive behaviors. However, similar patterns are not evident between Head Start teachers' ratings at children's exit from the program and kindergarten teachers' ratings at the end of kindergarten. In the latter case, kindergarten teachers report higher rates of problem behaviors, including hyperactive and withdrawn behaviors.

•Parents report children as demonstrating more social skills and positive approaches to learning between Head Start entry, Head Start exit, and the end of kindergarten. They report fewer problem behaviors on average between Head Start entry and exit, but there are not reported differences in the prevalence of these behaviors between Head Start exit and the end of kindergarten.

• Based on children's behavior during the direct assessment, between Head Start entry and the end of kindergarten, assessors rate children as demonstrating better social/cognitive skills, including better attention, organization and impulse control, activity levels, and sociability.

Table C.18. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures by Age: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
3-Year-Olds				
Teacher Report				
Social Skills	761	15.2	18.4	18.0
Total Behavior Problems	767	7.5	5.2	6.8
Aggressive Behavior	767	1.7	1.3	1.4
Hyperactive Behavior	767	3.3	2.2	3.0
Withdrawn Behavior	767	1.6	1.2	1.7
PLBS – Total[a]	767	49.6	53.3	52.9
PLBS – Attitude toward Learning[a]	767	49.7	52.5	53.2
PLBS – Competence Motivation[a]	767	49.7	53.2	52.8
PLBS – Attention/Persistence[a]	767	49.5	53.6	51.9
Parent Report				
Social Skills/Positive Approaches to Learning	770	11.8	12.4	12.7
Total Behavior Problems	772	5.6	5.3	5.2
Assessor Rating				
Leiter Cognitive/Social Raw Score	998	51.9	57.8	63.9
Leiter Cognitive/Social Standard Score[b]	998	89.5	89.7	94.5
Attention	998	18.0	20.7	23.0
Organization/Impulse Control	998	14.4	16.6	18.6
Activity Level	998	7.9	8.4	9.4
Sociability	998	11.6	12.0	12.9
4-Year-Olds				
Teacher Report				
Social Skills	537	17.1	18.6	18.0
Total Behavior Problems	538	5.7	5.1	6.7
Aggressive Behavior	537	1.3	1.2	1.4
Hyperactive Behavior	538	2.2	2.0	2.8
Withdrawn Behavior	537	1.6	1.4	1.8
PLBS – Total[a]	538	53.2	53.7	52.3
PLBS – Attitude toward Learning [a]	538	52.6	52.8	52.5
PLBS – Competence Motivation [a]	538	52.8	53.4	52.1
PLBS – Attention/Persistence [a]	538	53.4	54.0	51.8
Parent Report				
Social Skills/Positive Approaches to Learning	772	12.0	12.6	12.9
Total Behavior Problems	768	5.8	5.2	5.5
Assessor Rating				
Leiter Cognitive/ Social Raw Score	764	61.0	60.9	67.7
Leiter Cognitive/ Social Standard Score[b]	764	92.0	92.2	98.2
Attention	764	22.2	21.8	24.9
Organization/Impulse Control	764	17.3	17.5	19.7
Activity Level	764	8.9	9.0	9.7
Sociability	764	12.6	12.5	13.3

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Child Report, and Assessor

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

•Head Start teachers report that regardless of age at entry children demonstrate more social skills and fewer problem behaviors on average at Head Start exit than at Head Start entry. There are not reported differences in the prevalence of 4-year-olds' aggressive or hyperactive behaviors during this time period, however. In addition, while teachers report that children who enter the program as 3-year-olds demonstrate more positive approaches to learning by Head Start exit, they do not report similar patterns for those who enter at age 4. Head Start teachers' ratings at children's exit from the program and kindergarten teachers' ratings at the end of kindergarten are similar for children regardless of age at program entry.

•Parents report that regardless of age at entry, children demonstrate more social skills and positive approaches to learning from Head Start entry to Head Start exit and the end of kindergarten. While they report children as demonstrating fewer problem behaviors by Head Start exit, there are not reported differences in the prevalence these behaviors between Head Start exit and end of kindergarten, regardless of age at entry.

•Based on children's behavior during the direct assessment, between Head Start entry and Head Start exit, assessors rate children, regardless of age at entry, as demonstrating better social/cognitive skills, including better attention, organization and impulse control, activity levels, and sociability.

Table C.19. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures by Gender: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
Girls				
Teacher Report				
Social Skills	626	16.8	19.2	18.9
Total Behavior Problems	628	5.4	4.2	5.2
Aggressive Behavior	627	1.2	0.9	1.0
Hyperactive Behavior	628	2.2	1.7	2.2
Withdrawn Behavior	627	1.3	1.2	1.5
PLBS – Total[a]	628	53.4	54.8	55.0
PLBS – Attitude toward Learning[a]	628	53.0	53.8	54.7
PLBS – Competence Motivation[a]	628	52.7	54.2	54.4
PLBS – Attention/Persistence[a]	628	53.5	55.2	54.4
Parent Report				
Social Skills/Positive Approaches to Learning	748	12.2	12.7	13.1
Total Behavior Problems	749	5.4	4.9	5.0
Assessor Rating				
Leiter Cognitive/Social Raw Score	862	59.8	62.4	67.2
Leiter Cognitive/Social Standard Score[b]	862	93.7	93.2	97.5
Attention	862	21.3	22.6	24.5
Organization/Impulse Control	862	16.9	18.0	19.6
Activity Level	862	9.0	9.2	9.9
Sociability	862	12.7	12.6	13.2
Boys				
Teacher Report				
Social Skills	687	15.3	17.7	17.1
Total Behavior Problems	692	8.0	6.1	8.2
Aggressive Behavior	692	1.8	1.5	1.8
Hyperactive Behavior	692	3.4	2.5	3.6
Withdrawn Behavior	692	1.8	1.4	1.9
PLBS – Total[a]	692	49.3	52.3	50.3
PLBS – Attitude toward Learning[a]	692	49.2	51.6	51.2
PLBS – Competence Motivation [a]	692	49.6	52.5	50.5
PLBS – Attention/Persistence [a]	692	49.2	52.4	49.5
Parent Report				
Social Skills/Positive Approaches to Learning	794	11.6	12.3	12.5
Total Behavior Problems	791	6.0	5.6	5.6
Assessor Rating				
Leiter Cognitive/ Social Raw Score	909	52.2	56.0	63.8
Leiter Cognitive/ Social Standard Score[b]	909	87.5	88.4	94.7
Attention	909	18.6	19.9	23.2
Organization/Impulse Control	909	14.5	16.1	18.6
Activity Level	909	7.8	8.1	9.2
Sociability	909	11.4	11.9	12.9

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than that of other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

•Head Start teachers report that both boys and girls demonstrate more social skills and fewer problem behaviors on average at Head Start exit than at Head Start entry. There are not reported differences in the prevalence of girls' withdrawn behaviors during this time period, however. In addition, there are not similar patterns between Head Start teachers' ratings at children's exit from the program and kindergarten teachers' ratings at the end of kindergarten, regardless of gender. For example, kindergarten teachers report higher rates of problem behaviors for both boys and girls, including hyperactive and withdrawn behaviors. Head Start teachers also report that girls exhibit more positive approaches to learning at Head Start exit than at Head Start entry, but kindergarten teachers do not report the same at the end of kindergarten. Moreover, in the areas of children's attention/persistence and competence motivation, there are not reported differences for girls between Head Start entry and exit or between the end of Head Start and end of kindergarten. Meanwhile, boys demonstrate more positive approaches to learning at Head Start exit than at Head Start entry, but teachers do not report differences in their attitude/persistence and competence motivation levels between Head Start exit and the end of kindergarten.

•Parents report that both boys and girls demonstrate more social skills and positive approaches to learning from Head Start entry to Head Start exit and the end of kindergarten. While they report children as demonstrating fewer problem behaviors by Head Start exit, they do not report differences between Head Start exit and end of kindergarten.

•Based on children's behavior during the direct assessment, between Head Start entry and Head Start exit, assessors rate both boys and girls as demonstrating better social/cognitive skills, including better attention, organization and impulse control, activity levels, and sociability.

Table C.20. FACES Parent, Teacher, and Assessor Child Report Data Measures by Race/Ethnicity: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
White, Non-Hispanic				
Teacher Report				
Social Skills	330	16.2	18.1	17.1
Total Behavior Problems	333	7.1	6.3	8.3
Aggressive Behavior	332	1.5	1.5	1.7
Hyperactive Behavior	333	2.8	2.5	3.5
Withdrawn Behavior	332	1.9	1.6	2.2
PLBS – Total[a]	333	51.6	53.3	50.5
PLBS – Attitude toward Learning[a]	333	51.3	52.6	51.6
PLBS – Competence Motivation[a]	333	51.4	53.3	50.5
PLBS – Attention/Persistence[a]	333	51.6	53.2	49.6
Parent Report				
Social Skills/Positive Approaches to Learning	355	12.0	12.2	12.6
Total Behavior Problems	356	5.5	5.1	5.4
Assessor Rating				
Leiter Cognitive/Social Raw Score	361	57.2	59.0	65.5
Leiter Cognitive/Social Standard Score[b]	361	91.1	91.0	95.8
Attention	361	20.7	21.3	23.8
Organization/Impulse Control	361	16.0	17.1	19.0
Activity Level	361	8.3	8.3	9.3
Sociability	361	12.2	12.4	13.3
African American, Non-Hispanic				
Teacher Report				
Social Skills	381	15.5	18.1	17.5
Total Behavior Problems	382	6.9	5.8	7.7
Aggressive Behavior	382	1.5	1.5	1.8
Hyperactive Behavior	382	3.3	2.5	3.4
Withdrawn Behavior	382	1.3	1.3	1.7
PLBS – Total[a]	382	50.1	51.7	51.5
PLBS – Attitude toward Learning [a]	382	49.7	51.0	51.4
PLBS – Competence Motivation [a]	382	50.8	52.1	51.9
PLBS – Attention/Persistence [a]	382	49.7	51.9	50.4
Parent Report				
Social Skills/Positive Approaches to Learning	471	12.0	12.7	12.8
Total Behavior Problems	470	5.4	5.0	5.2
Assessor Rating				
Leiter Cognitive/ Social Raw Score	544	54.3	57.8	65.7
Leiter Cognitive/ Social Standard Score[b]	544	89.8	89.8	97.1
Attention	544	19.3	20.9	24.0
Organization/Impulse Control	544	15.1	16.6	19.1
Activity Level	544	8.0	8.5	9.6
Sociability	544	11.9	11.8	13.0

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
Hispanic/Latino				
Teacher Report				
Social Skills	466	16.6	19.1	18.9
Total Behavior Problems	468	6.1	3.7	4.9
Aggressive Behavior	468	1.5	0.9	0.9
Hyperactive Behavior	468	2.5	1.6	2.1
Withdrawn Behavior	468	1.4	0.9	1.3
PLBS – Total[a]	468	52.3	55.1	55.1
PLBS – Attitude toward Learning [a]	468	52.3	54.2	55.2
PLBS – Competence Motivation [a]	468	51.7	54.4	54.3
PLBS – Attention/Persistence [a]	468	52.3	55.5	54.6
Parent Report				
Social Skills/Positive Approaches to Learning	582	11.8	12.7	13.0
Total Behavior Problems	583	6.1	5.7	5.4
Assessor Rating				
Leiter Cognitive/ Social Raw Score	702	56.1	59.7	65.5
Leiter Cognitive/ Social Standard Score [b]	702	90.6	90.8	95.7
Attention	702	19.8	21.2	23.7
Organization/Impulse Control	702	15.8	17.2	19.1
Activity Level	702	8.6	8.9	9.7
Sociability	702	11.9	12.4	13.0
Other, Non-Hispanic				
Teacher Report				
Social Skills	124	15.2	18.1	18.0
Total Behavior Problems	125	7.3	6.0	7.3
Aggressive Behavior	125	1.5	1.4	1.3
Hyperactive Behavior	125	2.6	2.1	3.1
Withdrawn Behavior	125	2.4	1.9	1.9
PLBS – Total[a]	125	50.4	52.7	51.7
PLBS – Attitude toward Learning [a]	125	50.0	51.1	51.5
PLBS – Competence Motivation [a]	125	49.4	52.6	51.8
PLBS – Attention/Persistence [a]	125	51.9	53.5	51.2
Parent Report				
Social Skills/Positive Approaches to Learning	131	11.5	11.9	12.5
Total Behavior Problems	128	5.3	5.0	5.0
Assessor Rating				
Leiter Cognitive/ Social Raw Score	152	58.1	61.3	65.6
Leiter Cognitive/ Social Standard Score [b]	152	92.0	93.6	96.0
Attention	152	20.7	22.1	24.0
Organization/Impulse Control	152	16.6	17.7	19.1
Activity Level	152	8.5	9.0	9.5
Sociability	152	12.4	12.4	13.1

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Child Report, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than that of other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

•Head Start teachers report that children, regardless of race/ethnicity, demonstrate more social skills and fewer problem behaviors on average at Head Start exit than at Head Start entry. The one exception is that there are not teacher-reported differences in the prevalence of the problem behaviors of White children, including aggressive and hyperactive behaviors, during this time period. There are not similar patterns between Head Start teachers' ratings at children's exit from the program and kindergarten teachers' ratings at the end of kindergarten, generally regardless of race/ethnicity. For example, kindergarten teachers report higher rates of problem behaviors across children, particularly hyperactive behaviors. Head Start teachers also report that children exhibit more positive approaches to learning at Head Start exit than at Head Start entry, but kindergarten teachers do not report similar levels at the end of kindergarten. In fact, teachers of White children report them as demonstrating fewer approaches to learning, including competence motivation and attention/persistence. Notably, among Other race children, teachers do not report differences in the prevalence of their approaches to learning between Head Start entry and exit.

•Parents report that all children demonstrate more social skills and positive approaches to learning from Head Start entry to the end of kindergarten. Only the parents of Hispanic/Latino children report children as demonstrating fewer problem behaviors on average across this time period.

•Based on children's behavior during the direct assessment, between Head Start entry and the end of kindergarten, assessors rate White, African American, and Hispanic/Latino children as demonstrating better social/cognitive skills, including better attention, organization and impulse control, activity levels, and sociability.

Table C.21. FACES Parent, Teacher, and Assessor Child Report Data Measures by Number of Family Risks: Fall 2006 – Spring 2008 or Spring 2009

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
0 Risks				
Teacher Report				
Social Skills	213	15.6	19.0	18.3
Total Behavior Problems	213	7.0	4.7	6.2
Aggressive Behavior	213	1.5	1.2	1.3
Hyperactive Behavior	213	2.8	1.9	2.6
Withdrawn Behavior	213	1.9	1.2	1.6
PLBS – Total[a]	213	50.5	53.8	53.2
PLBS – Attitude toward Learning[a]	213	50.5	53.3	53.2
PLBS – Competence Motivation[a]	213	49.9	52.9	52.5
PLBS – Attention/Persistence[a]	213	51.1	54.6	52.9
Parent Report				
Social Skills/Positive Approaches to Learning	239	12.1	12.6	12.9
Total Behavior Problems	240	4.9	4.3	4.4
Assessor Rating				
Leiter Cognitive/Social Raw Score	265	56.1	60.4	66.6
Leiter Cognitive/Social Standard Score[b]	265	91.1	91.9	97.2
Attention	265	19.7	21.8	24.1
Organization/Impulse Control	265	15.9	17.5	19.6
Activity Level	265	8.1	8.7	9.7
Sociability	265	12.4	12.4	13.1
1 Risk				
Teacher Report				
Social Skills	462	16.2	18.3	17.9
Total Behavior Problems	465	6.8	5.2	6.9
Aggressive Behavior	464	1.6	1.3	1.5
Hyperactive Behavior	465	2.8	2.1	2.9
Withdrawn Behavior	464	1.6	1.2	1.8
PLBS – Total[a]	465	51.3	54.0	52.9
PLBS – Attitude toward Learning[a]	465	50.9	52.7	52.9
PLBS – Competence Motivation[a]	465	51.4	54.1	52.9
PLBS – Attention/Persistence[a]	465	51.3	53.8	52.0
Parent Report				
Social Skills/Positive Approaches to Learning	543	12.0	12.6	12.8
Total Behavior Problems	541	5.7	5.2	5.4
Assessor Rating				
Leiter Cognitive/Social Raw Score	594	56.1	60.7	65.0
Leiter Cognitive/Social Standard Score[b]	594	91.0	92.3	95.2
Attention	594	20.3	21.9	23.6
Organization/Impulse Control	594	15.8	17.5	19.0
Activity Level	594	8.4	8.8	9.3
Sociability	594	11.7	12.5	13.0

Scales	Number of Cases	Head Start Entry Mean	Head Start Exit Mean	Spring Kindergarten Mean
2 or More Risks				
Teacher Report				
Social Skills	545	16.0	18.4	18.0
Total Behavior Problems	549	6.5	5.1	6.8
Aggressive Behavior	549	1.4	1.2	1.3
Hyperactive Behavior	549	2.8	2.1	2.9
Withdrawn Behavior	549	1.5	1.3	1.7
PLBS – Total[a]	549	51.4	53.2	52.3
PLBS – Attitude toward Learning[a]	549	51.4	52.6	52.9
PLBS – Competence Motivation[a]	549	51.2	52.7	52.0
PLBS – Attention/Persistence[a]	549	51.3	53.5	51.7
Parent Report				
Social Skills/Positive Approaches to Learning	687	11.8	12.4	12.9
Total Behavior Problems	686	6.0	5.6	5.5
Assessor Rating				
Leiter Cognitive/Social Raw Score	786	55.8	58.1	66.0
Leiter Cognitive/Social Standard Score[b]	786	90.3	89.8	96.6
Attention	786	19.6	20.7	24.0
Organization/Impulse Control	786	15.6	16.7	19.0
Activity Level	786	8.4	8.6	9.7
Sociability	786	12.2	12.1	13.2

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Child Report, and Assessor

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Estimates for Head Start entry are derived from the Fall 2006 FACES Direct Child Assessment data collection. Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

•Head Start teachers report that children, regardless of number of family risks, demonstrate more social skills and fewer problem behaviors on average at Head Start exit than at Head Start entry. There are not similar patterns between Head Start teachers' ratings at children's exit from the program and kindergarten teachers' ratings at the end of kindergarten, regardless of number of family risks. For example, kindergarten teachers report higher rates of problem behaviors across children with 1 and 2 or more risks, particularly hyperactive behaviors. Head Start teachers also report that children exhibit more positive approaches to learning at Head Start exit than at entry, but kindergarten teachers do not report similar levels through the end of kindergarten. The one exception is children's attention/persistence with tasks, where teachers of children with 1 and 2 or more risks are rated as having fewer skills in this area by kindergarten teachers. In other words, children from families with no risks have similar levels of teacher-reported approaches to learning through the end of kindergarten.

•Parents report that children demonstrate more social skills and positive approaches to learning, and fewer problem behaviors at Head Start exit than at Head Start entry. However, there are no reported differences in the prevalence of the problem behaviors among children with 2 or more risks on average across this time period.

•Based on children's behavior during the direct assessment, between Head Start entry and the end of kindergarten, assessors rate children with no or 1 family risk as demonstrating better social/cognitive skills, including having better attention, organization and impulse control, activity levels, and sociability.

Table C.22. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean
Teacher Report			
Social Skills	1348	18.5	18.0
Total Behavior Problems	1355	5.2	6.8
Aggressive Behavior	1354	1.2	1.4
Hyperactive Behavior	1355	2.1	2.9
Withdrawn Behavior	1354	1.3	1.7
PLBS – Total[a]	1354	53.5	52.6
PLBS – Attitude toward Learning[a]	1354	52.6	52.9
PLBS – Competence Motivation[a]	1354	53.3	52.4
PLBS – Attention/Persistence[a]	1354	53.7	51.8
Parent Report			
Social Skills/Positive Approaches to Learning	1580	12.5	12.8
Total Behavior Problems	1577	5.3	5.3
Assessor Rating			
Leiter Cognitive/Social Raw Score	1818	59.1	65.4
Leiter Cognitive/Social Standard Score[b]	1818	90.8	96.0
Attention	1818	21.2	23.8
Organization/Impulse Control	1818	17.0	19.0
Activity Level	1818	8.7	9.5
Sociability	1818	12.3	13.1

Source: Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Interview, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

Table C.23. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures by Gender: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean
3-Year-Olds			
Teacher Report			
Social Skills	789	18.5	18.1
Total Behavior Problems	795	5.1	6.7
Aggressive Behavior	795	1.3	1.4
Hyperactive Behavior	795	2.1	2.9
Withdrawn Behavior	795	1.2	1.6
PLBS – Total[a]	794	53.4	53.0
PLBS – Attitude toward Learning[a]	794	52.6	53.3
PLBS – Competence Motivation[a]	794	53.3	52.9
PLBS – Attention/Persistence [a]	794	53.7	52.0
Parent Report			
Social Skills/Positive Approaches to Learning	784	12.4	12.7
Total Behavior Problems	785	5.3	5.2
Assessor Rating			
Leiter Cognitive/ Social Raw Score	1030	57.9	63.7
Leiter Cognitive/ Social Standard Score[b]	1030	89.7	94.4
Attention	1030	20.8	23.0
Organization/Impulse Control	1030	16.7	18.6
Activity Level	1030	8.4	9.4
Sociability	1030	12.0	12.8
4-Year-Olds			
Teacher Report			
Social Skills	548	18.6	17.9
Total Behavior Problems	549	5.1	6.8
Aggressive Behavior	548	1.2	1.4
Hyperactive Behavior	549	2.0	2.9
Withdrawn Behavior	548	1.4	1.8
PLBS – Total[a]	549	53.6	52.1
PLBS – Attitude toward Learning[a]	549	52.7	52.5
PLBS – Competence Motivation[a]	549	53.3	51.8
PLBS – Attention/Persistence[a]	549	53.8	51.7
Parent Report			
Social Skills/Positive Approaches to Learning	792	12.6	12.9
Total Behavior Problems	788	5.2	5.5
Assessor Rating			
Leiter Cognitive/ Social Raw Score	779	60.8	67.7
Leiter Cognitive/ Social Standard Score[b]	779	92.2	98.2
Attention	779	21.8	24.9
Organization/Impulse Control	779	17.5	19.7
Activity Level	779	9.0	9.7
Sociability	779	12.5	13.3

Source: Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Interview, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

Table C.24. Summary Statistics for FACES Parent, Teacher, and Assessor Child Report Data Measures by Gender: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean
Girls			
Teacher Report			
Social Skills	641	19.2	18.9
Total Behavior Problems	643	4.3	5.3
Aggressive Behavior	642	0.9	1.0
Hyperactive Behavior	643	1.7	2.3
Withdrawn Behavior	642	1.2	1.5
PLBS – Total[a]	643	54.6	54.8
PLBS – Attitude toward Learning[a]	643	53.6	54.6
PLBS – Competence Motivation[a]	643	54.1	54.3
PLBS – Attention/Persistence[a]	643	55.1	54.2
Parent Report			
Social Skills/Positive Approaches to Learning	769	12.7	13.1
Total Behavior Problems	769	4.9	5.0
Assessor Rating			
Leiter Cognitive/Social Raw Score	886	62.4	67.2
Leiter Cognitive/Social Standard Score[b]	886	93.2	97.5
Attention	886	22.6	24.5
Organization/Impulse Control	886	18.0	19.6
Activity Level	886	9.2	9.9
Sociability	886	12.6	13.2
Boys			
Teacher Report			
Social Skills	705	17.8	17.2
Total Behavior Problems	710	6.0	8.1
Aggressive Behavior	710	1.5	1.8
Hyperactive Behavior	710	2.5	3.5
Withdrawn Behavior	710	1.3	1.9
PLBS – Total[a]	709	52.4	50.5
PLBS – Attitude toward Learning[a]	709	51.7	51.3
PLBS – Competence Motivation[a]	709	52.6	50.6
PLBS – Attention/Persistence[a]	709	52.5	49.6
Parent Report			
Social Skills/Positive Approaches to Learning	808	12.3	12.5
Total Behavior Problems	805	5.6	5.6
Assessor Rating			
Leiter Cognitive/ Social Raw Score	928	56.0	63.7
Leiter Cognitive/ Social Standard Score[b]	928	88.4	94.6
Attention	928	19.9	23.1
Organization/Impulse Control	928	16.1	18.5
Activity Level	928	8.1	9.2
Sociability	928	11.9	12.9

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher

Interview, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

Table C.25. FACES Parent, Teacher, and Assessor Child Report Data Measures by Race/Ethnicity: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

		Head Start	
		Exit	Spring Kindergarten
Scales	Number of Cases	Mean	Mean
White, Non-Hispanic			
Teacher Report			
Social Skills	334	18.2	17.1
Total Behavior Problems	337	6.3	8.3
Aggressive Behavior	336	1.5	1.7
Hyperactive Behavior	337	2.5	3.5
Withdrawn Behavior	336	1.6	2.2
PLBS – Total[a]	337	53.3	50.5
PLBS – Attitude toward Learning[a]	337	52.5	51.6
PLBS – Competence Motivation[a]	337	53.3	50.6
PLBS – Attention/Persistence[a]	337	53.2	49.6
Parent Report			
Social Skills/Positive Approaches to Learning	362	12.2	12.5
Total Behavior Problems	362	5.1	5.4
Assessor Rating			
Leiter Cognitive/Social Raw Score	370	59.0	65.5
Leiter Cognitive/Social Standard Score[b]	370	90.9	95.9
Attention	370	21.3	23.9
Organization/Impulse Control	370	17.1	19.0
Activity Level	370	8.3	9.3
Sociability	370	12.4	13.3
African American, Non-Hispanic			
Teacher Report			
Social Skills	395	18.2	17.6
Total Behavior Problems	396	5.7	7.6
Aggressive Behavior	396	1.5	1.8
Hyperactive Behavior	396	2.5	3.3
Withdrawn Behavior	396	1.3	1.7
PLBS – Total[a]	396	51.8	51.6
PLBS – Attitude toward Learning[a]	396	51.1	51.6
PLBS – Competence Motivation[a]	396	52.1	52.0
PLBS – Attention/Persistence[a]	396	51.9	50.4
Parent Report			
Social Skills/Positive Approaches to Learning	480	12.7	12.8
Total Behavior Problems	479	5.0	5.2
Assessor Rating			
Leiter Cognitive/Social Raw Score	557	57.8	65.3
Leiter Cognitive/Social Standard Score[b]	557	89.8	96.7
Attention	557	20.9	23.9
Organization/Impulse Control	557	16.6	19.0
Activity Level	557	8.5	9.5
Sociability	557	11.9	12.9

Scales	Number of cases	Head Start Exit Mean	Spring Kindergarten Mean
Hispanic/Latino			
Teacher Report			
Social Skills	479	19.1	18.9
Total Behavior Problems	481	3.7	5.1
Aggressive Behavior	481	0.8	0.9
Hyperactive Behavior	481	1.5	2.1
Withdrawn Behavior	481	0.9	1.4
PLBS – Total[a]	480	55.1	54.8
PLBS – Attitude toward Learning[a]	480	54.1	55.0
PLBS – Competence Motivation[a]	480	54.4	54.0
PLBS – Attention/Persistence[a]	480	55.5	54.4
Parent Report			
Social Skills/Positive Approaches to Learning	589	12.7	13.0
Total Behavior Problems	590	5.7	5.5
Assessor Rating			
Leiter Cognitive/Social Raw Score	720	59.7	65.5
Leiter Cognitive/Social Standard Score[b]	720	90.8	95.7
Attention	720	21.2	23.7
Organization/Impulse Control	720	17.2	19.1
Activity Level	720	8.9	9.7
Sociability	720	12.4	13.0
Other, Non-Hispanic			
Teacher Report			
Social Skills	124	18.1	18.0
Total Behavior Problems	125	6.0	7.2
Aggressive Behavior	125	1.3	1.3
Hyperactive Behavior	125	2.1	3.1
Withdrawn Behavior	125	1.9	1.9
PLBS – Total[a]	125	52.8	51.8
PLBS – Attitude toward Learning[a]	125	51.2	51.6
PLBS – Competence Motivation[a]	125	52.6	51.9
PLBS – Attention/Persistence[a]	125	53.5	51.3
Parent Report			
Social Skills/Positive Approaches to Learning	139	11.9	12.5
Total Behavior Problems	136	5.0	5.1
Assessor Rating			
Leiter Cognitive/Social Raw Score	155	61.4	65.4
Leiter Cognitive/Social Standard Score[b]	155	93.6	95.8
Attention	155	22.2	23.9
Organization/Impulse Control	155	17.7	19.0
Activity Level	155	9.0	9.5
Sociability	155	12.5	13.1

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Interview, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

Table C.26. FACES Parent, Teacher, and Assessor Child Report Data Measures by Number of Family Risks: Spring 2007 – Spring 2008 or Spring 2008 – Spring 2009

Scales	Number of Cases	Head Start Exit Mean	Spring Kindergarten Mean
0 Risks			
Teacher Report			
Social Skills	215	19.0	18.3
Total Behavior Problems	215	4.7	6.2
Aggressive Behavior	215	1.2	1.3
Hyperactive Behavior	215	1.9	2.6
Withdrawn Behavior	215	1.2	1.5
PLBS – Total[a]	215	53.9	53.3
PLBS – Attitude toward Learning[a]	215	53.3	53.2
PLBS – Competence Motivation[a]	215	53.0	52.7
PLBS – Attention/Persistence[a]	215	54.6	53.0
Parent Report			
Social Skills/Positive Approaches to Learning	240	12.6	12.9
Total Behavior Problems	240	4.3	4.4
Assessor Rating			
Leiter Cognitive/Social Raw Score	270	60.5	66.4
Leiter Cognitive/Social Standard Score[b]	270	91.9	97.0
Attention	270	21.8	24.1
Organization/Impulse Control	270	17.5	19.6
Activity Level	270	8.7	9.7
Sociability	270	12.4	13.1
1 Risk			
Teacher Report			
Social Skills	467	18.4	17.9
Total Behavior Problems	470	5.2	6.9
Aggressive Behavior	469	1.3	1.5
Hyperactive Behavior	470	2.1	2.9
Withdrawn Behavior	469	1.2	1.8
PLBS – Total[a]	469	53.9	52.7
PLBS – Attitude toward Learning[a]	469	52.6	52.9
PLBS – Competence Motivation[a]	469	54.1	52.7
PLBS – Attention/Persistence[a]	469	53.8	52.0
Parent Report			
Social Skills/Positive Approaches to Learning	545	12.6	12.8
Total Behavior Problems	543	5.2	5.4
Assessor Rating			
Leiter Cognitive/Social Raw Score	609	60.7	65.0
Leiter Cognitive/Social Standard Score[b]	609	92.3	95.3
Attention	609	21.9	23.7
Organization/Impulse Control	609	17.5	19.0
Activity Level	609	8.8	9.3
Sociability	609	12.4	13.0

Scales	Number of cases	Head Start Exit Mean	Spring Kindergarten Mean
2 or More Risks			
Teacher Report			
Social Skills	562	18.5	18.1
Total Behavior Problems	566	5.1	6.7
Aggressive Behavior	566	1.2	1.3
Hyperactive Behavior	566	2.1	2.9
Withdrawn Behavior	566	1.3	1.7
PLBS – Total[a]	566	53.1	52.4
PLBS – Attitude toward Learning[a]	566	52.6	53.0
PLBS – Competence Motivation[a]	566	52.7	52.1
PLBS – Attention/Persistence[a]	566	53.5	51.8
Parent Report			
Social Skills/Positive Approaches to Learning	687	12.4	12.9
Total Behavior Problems	686	5.6	5.5
Assessor Rating			
Leiter Cognitive/Social Raw Score	803	58.0	65.8
Leiter Cognitive/Social Standard Score[b]	803	89.8	96.4
Attention	803	20.6	24.0
Organization/Impulse Control	803	16.6	19.0
Activity Level	803	8.6	9.7
Sociability	803	12.1	13.2

Source: Fall 2006 FACES Parent Interview and Spring 2007, 2008, and 2009 FACES Parent Interview, Teacher Interview, and Assessor Rating.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Head Start exit scores are derived from the Spring 2007 or Spring 2008 FACES Direct Child Assessment data collection waves for 4-year-old and 3-year-old children, respectively. Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

[a] This score is a T-score set to have a mean of 50 and standard deviation of 10. T-scores illustrate a child's performance relative to the population as a whole. A high T-score for a subgroup indicates that the subgroup's mastery level is greater than other groups in the population. Here, T-scores are set to illustrate children's performance relative to the performance of the population of first-time Head Start children as a whole.

[b] This standard score has a mean of 100 and a standard deviation of 15.

Table C.27. Disability Categories for Children with Disabilities: Spring 2008 or Spring 2009

Disability Category	Teacher Report
Percent of Children	
Percent of Head Start Children with Disabilities	6.1
Percent of Children with Disabilities	
Speech or Language Impairment	67.9
Cognitive Impairment[a]	24.2
Behavioral/Emotional Impairment[b]	31.3
Sensory Impairment[c]	8.9
Physical Impairment [d]	11.3
Child has IEP or ISFP	63.0
Percent of Children with Disabilities Having Multiple Impairments	
Multiple Impairments	33.6

Source: Spring 2008 and 2009 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and 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.

[a] Cognitive Impairment includes the following: mental retardation, autism/pervasive developmental delay, and non-categorical developmental delay.

[b]Behavioral/Emotional Impairment includes behavior problems, hyperactivity, and ADHD.

[c] Sensory Impairment includes deafness, other hearing impairment, blindness, and other visual impairment.

[d] Physical Impairment includes motor impairment.

•At the end of kindergarten, 6 percent of children are reported to have a disability by their teacher. The majority of these children are reported to have either speech or language impairments by their teachers.

•Approximately two-thirds of those with an identified disability have an IEP or IFSP. One-third have more than one impairment or disability.

Table C.28. Disability Categories for Children with Disabilities by Gender: Spring 2008 or Spring 2009

	Teacher Report	
Disability Category	Girls	Boys
Percent of Children		
Percent of Head Start Children with Disabilities	4.1	8.1
Percent of Children with Disabilities		
Speech or Language Impairment	61.7	70.9
Cognitive Impairment[a]	28.2	22.3
Behavioral/Emotional Impairment[b]	23.4	35.1
Sensory Impairment[c]	19.3	3.8
Physical Impairment[d]	4.3	14.7
Child has IEP or ISFP	62.7	63.2
Percent of Children with Disabilities Having Multiple Impairments		
Multiple Impairments	30.8	35.0

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and 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.

[a] Cognitive Impairment includes the following: mental retardation, autism/pervasive developmental delay, and non-categorical developmental delay.

[b]Behavioral/Emotional Impairment includes behavior problems, hyperactivity, and ADHD.

[c] Sensory Impairment includes deafness, other hearing impairment, blindness, and other visual impairment.

[d] Physical Impairment includes motor impairment.

•According to teachers, at the end of kindergarten, a larger percentage of boys than girls have an identified disability. Teachers report larger percentages of boys as having speech or language and behavioral/emotional impairments than girls. Similar percentages of boys and girls with an identified disability has an IEP or IFSP, but a larger percentage of boys are reported to have more than one disability or impairment.

Table C.29. Disability Categories for Children with Disabilities by Race/Ethnicity: Spring 2008 or Spring 2009

	Teacher Report			
Disability Category	White, Non-Hispanic	African American, Non-Hispanic	Hispanic/ Latino	Other, Non-Hispanic
Percent of Children				
Percent of Head Start Children with Disabilities	7.3	7.4	4.2	8.2
Percent of Children with Disabilities				
Speech or Language Impairment	56.1	72.9	71.2	75.5
Cognitive Impairment[a]	17.8	16.1	35.9	35.6
Behavioral/Emotional Impairment [b]	48.5	31.1	22.4	9.9
Sensory Impairment[c]	13.8	13.6	2.0	0.0
Physical Impairment [d]	16.5	6.4	16.9	0.0
Child has IEP or ISFP	41.7	44.8	90.2	100.0
Percent of Children with Disabilities Having Multiple Impairments				
Multiple Impairments	48.4	31.3	25.9	21.0

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and 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.

[a]Cognitive Impairment includes the following: mental retardation, autism/pervasive developmental delay, and non-categorical developmental delay.

[b]Behavioral/Emotional Impairment includes behavior problems, hyperactivity, and ADHD.

[c]Sensory Impairment includes deafness, other hearing impairment, blindness, and other visual impairment.

[d]Physical Impairment includes motor impairment.

•According to teachers, similar percentages of White, African American, and Other race children have an identified disability. Meanwhile, approximately half as many Hispanic/Latino children have an identified disability. Larger percentages of Hispanic/Latino children have a cognitive impairment, while larger percentages of White children have a behavioral/emotional impairment. Similar percentages of White and African American children with an identified disability have an IEP or IFSP, while all or nearly all Other race and Hispanic/Latino children have an IEP or IFSP. Larger percentages of White children are reported to have more than one disability or impairment, followed by African American, Hispanic/Latino, and Other race children.

Table C.30. Disability Categories for Children with Disabilities by Number of Family Risks: Spring 2008 or Spring 2009

	Teacher Report		
Disability Category	0 Risks	1 Risk	2 or More Risks
Percent of Children			
Percent of Head Start Children with Disabilities	7.8	4.5	6.6
Percent of Children with Disabilities			
Speech or Language Impairment	64.1	83.4	63.2
Cognitive Impairment[a]	43.9	16.5	20.9
Behavioral/Emotional Impairment [b]	17.4	17.7	43.2
Sensory Impairment[c]	10.3	9.8	8.3
Physical Impairment [d]	5.6	9.4	17.2
Child has IEP or ISFP	76.2	70.6	55.7
Percent of Children with Disabilities Having Multiple Impairments			
Multiple Impairments	31.4	25.5	41.9

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Teachers were asked whether a professional had indicated that the child had a developmental problem, delay or other special need, and 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.

[a]Cognitive Impairment includes the following: mental retardation, autism/pervasive developmental delay, and non-categorical developmental delay.

[b]Behavioral/Emotional Impairment includes behavior problems, hyperactivity, and ADHD.

[c]Sensory Impairment includes deafness, other hearing impairment, blindness, and other visual impairment.

[d]Physical Impairment includes motor impairment.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

•According to teachers, larger percentages of children with no family risks or 2 or more family risks have an identified disability at the end of kindergarten than children with 1 risk. Larger percentages of children with no family risks have a cognitive impairment, while larger percentages of those with 2 or more risks have a behavior/emotional impairment. Higher percentages of children with an identified disability who have no family risks also have an IEP or IFSP, with the smallest percentage among those with 2 or more risks. Notably, a larger percentage of children with two or more family risks are reported as having more than one disability or impairment.

Table C.31. Summary Statistics for FACES Child Height and Weight Data: Spring 2008 or Spring 2009

Scales	Number of Cases	Mean	SE
Height (in inches)	1827	45.4	0.1
Weight (in pounds)	1813	49.7	0.2
Body Mass Index (BMI)	1774	16.7	0.1
Percent of Children			
Child is Underweight	1767	4.0	0.5
Child is Normal Weight	1767	60.4	1.2
Child is Overweight	1767	18.8	0.9
Child is Obese	1767	16.8	0.9

Source: Spring 2008 and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

A child is considered to be underweight when his/her BMI score is below the 5th percentile for their age and gender; of normal weight when his/her BMI score falls from the 5th percentile to less than the 85th percentile for their age and gender; overweight when his/her BMI score falls at or above the 85th percentile for their age and gender; and obese when his/her BMI score is at or above the 95th percentile for their age and gender.

•At the end of kindergarten children's heights are on average within age-norms provided by the Centers for Disease Control and Prevention (CDC) (i.e., at the 50th percentile). However, their average weight and Body Mass Index (BMI) are above average for their age group (i.e., higher than the 50th percentile).

•Close to 17 percent of children are obese at the end of kindergarten, and another 19 percent are overweight.

Table C.32. Summary Statistics for FACES Child Height and Weight Data by Age: Spring 2008 or Spring 2009

	3-Year-Olds			4-Year-Olds		
Scales	Number of Cases	Mean	SE	Number of Cases	Mean	SE
Height (in inches)	1039	45.5	0.1	778	45.3	0.1
Weight (in pounds)	1039	50.1	0.4	764	49.1	0.3
Body Mass Index (BMI)	1014	16.7	0.1	750	16.7	0.1
Percent of Children						
Child is Underweight	1013	4.6	0.7	744	3.2	0.6
Child is Normal Weight	1013	60.2	1.5	744	60.6	1.8
Child is Overweight	1013	18.9	1.2	744	18.8	1.4
Child is Obese	1013	16.2	1.2	744	17.4	1.4

Source: Spring 2008 and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

A child is considered to be underweight when his/her BMI score is below the 5th percentile for their age and gender; of normal weight when his/her BMI score falls from the 5th percentile to less than the 85th percentile for their age and gender; overweight when his/her BMI score falls at or above the 85th percentile for their age and gender; and obese when his/her BMI score is at or above the 95th percentile for their age and gender.

Table C.33. Summary Statistics for FACES Child Height and Weight Data by Gender: Spring 2008 or Spring 2009

	Girls			Boys		
Scales	Number of Cases	Mean	SE	Number of Cases	Mean	SE
Height (in inches)	891	45.2	0.1	932	45.6	0.1
Weight (in pounds)	891	49.0	0.4	918	50.3	0.3
Body Mass Index (BMI)	868	16.6	0.1	902	16.7	0.1
Percent of Children						
Child is Underweight	865	4.7	0.7	900	3.2	0.6
Child is Normal Weight	865	60.6	1.7	900	60.1	1.6
Child is Overweight	865	18.5	1.3	900	19.1	1.3
Child is Obese	865	16.1	1.3	900	17.6	1.3

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

A child is considered to be underweight when his/her BMI score is below the 5th percentile for their age and gender; of normal weight when his/her BMI score falls from the 5th percentile to less than the 85th percentile for their age and gender; overweight when his/her BMI score falls at or above the 85th percentile for their age and gender; and obese when his/her BMI score is at or above the 95th percentile for their age and gender.

•There are no significant differences in height or BMI between boys and girls at the end of kindergarten. However, boys weigh slightly more than girls. Boys are slightly more likely than girls to be obese.

Table C.34. Summary Statistics for FACES Child Height and Weight Data by Race/Ethnicity: Spring 2008 or Spring 2009

	White, Non-Hispanic			African American, Non-Hispanic			Hispanic/Latino			Other, Non-Hispanic		
Scales	Number of Cases	Mean	SE	Number of Cases	Mean	SE	Number of Cases	Mean	SE	Number of Cases	Mean	SE
Height (in inches)	377	44.9	0.1	554	46.1	0.1	720	45.2	0.1	159	45.6	0.2
Weight (in pounds)	373	48.0	0.5	551	51.2	0.5	720	50.1	0.4	152	47.9	0.8
Body Mass Index (BMI)	364	16.4	0.1	542	16.7	0.1	700	17.0	0.1	151	16.2	0.2
Percent of Children												
Child is Underweight	364	3.2	0.9	540	4.4	0.9	698	3.9	0.7	150	5.3	1.8
Child is Normal Weight	364	69.9	2.4	540	61.2	2.1	698	51.8	1.9	150	69.4	3.8
Child is Overweight	364	16.1	1.9	540	15.9	1.6	698	23.4	1.6	150	15.6	3.0
Child is Obese	364	10.8	1.6	540	18.5	1.7	698	20.9	1.5	150	9.6	2.4

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

A child is considered to be underweight when his/her BMI score is below the 5th percentile for their age and gender; of normal weight when his/her BMI score falls from the 5th percentile to less than the 85th percentile for their age and gender; overweight when his/her BMI score falls at or above the 85th percentile for their age and gender; and obese when his/her BMI score is at or above the 95th percentile for their age and gender.

•There are no differences in height by race/ethnicity at the end of kindergarten. However, African American and Hispanic/Latino children weigh more than children from other racial/ethnic backgrounds, and their BMIs are higher. Larger percentages of African American and Hispanic/Latino children are obese.

Table C.35. Summary Statistics for FACES Child Height and Weight Data by Number of Family Risks: Spring 2008 or Spring 2009

	0 Risks			1 Risk			2 or More Risks		
Scales	Number of Cases	Mean	SE	Number of Cases	Mean	SE	Number of Cases	Mean	SE
Height (in inches)	275	45.3	0.1	609	45.6	0.1	806	45.3	0.1
Weight (in pounds)	272	48.0	0.6	604	50.8	0.4	801	49.5	0.4
Body Mass Index (BMI)	267	16.3	0.1	589	16.9	0.1	783	16.7	0.1
Percent of Children									
Child is Underweight	266	4.6	1.3	588	4.0	0.8	780	4.1	0.7
Child is Normal Weight	266	66.2	2.9	588	57.3	2.0	780	58.4	1.8
Child is Overweight	266	18.8	2.4	588	19.5	1.6	780	19.8	1.4
Child is Obese	266	10.3	1.9	588	19.2	1.6	780	17.7	1.4

Source: Fall 2006 FACES Parent Interview and Spring 2008 and 2009 FACES Direct Child Assessment.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

A child is considered to be underweight when his/her BMI score is below the 5th percentile for their age and gender; of normal weight when his/her BMI score falls from the 5th percentile to less than the 85th percentile for their age and gender; overweight when his/her BMI score falls at or above the 85th percentile for their age and gender; and obese when his/her BMI score is at or above the 95th percentile for their age and gender.

•There are no differences in height by number of family risks at the end of kindergarten. However, children with 1 or more risks weigh more than children with no family risks, and their BMIs are also higher. A larger percentage of children with one risk and two or more risks are obese, as compared to those with no family risks.

Table C.36. Child Health Status as Reported by Parents: Spring 2008 or Spring 2009

	Percentages		
Scales	Excellent/Very Good	Good	Fair/Poor
All Children	81.1	15.1	3.8
Age[a]			
3-year-olds	81.8	13.6	4.7
4-year-olds	80.2	17.1	2.7
Gender			
Female	83.2	13.6	3.2
Male	79.0	16.6	4.4
Race/Ethnicity			
White, Non-Hispanic	84.9	10.3	4.8
African American, Non-Hispanic	82.7	13.0	4.3
Hispanic/Latino	76.3	20.2	3.5
Other, Non-Hispanic	85.3	13.6	1.1
Family Risks			
0	84.8	13.7	1.5
1	83.9	13.3	2.8
2 or More	76.6	17.9	5.5

Source: Fall 2006, Spring 2008, and 2009 FACES Parent Interview.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

Child and family characteristics are derived from the Fall 2006 FACES Parent Interview.

Spring kindergarten data are from the spring 2008 or spring 2009 wave for 4-year-old and 3-year-old children, respectively.

Number of family risks is based on three family characteristics in the Fall 2006 FACES Parent Interview: whether the child resides in a single parent household, whether the household income is below the poverty threshold, and whether the mother has less than a high school diploma.

[a] Age as of September 1, 2006.

•Approximately three-quarters of children are rated as having “excellent” or “very good” health by their parents in the spring of kindergarten. As in Head Start, only a small percentage of children are reported as having “fair” or “poor” general health at the end of kindergarten. Parents report differences in general health status by race/ethnicity and family risk. Fewer parents of Hispanic/Latino children report their child is in excellent or very good health, than do parents of White, African American, and Other race children. Similarly, fewer parents of children with two or more family risks report their child to be in excellent or very good health than do parents of children with no risks or one risk.

EXPLORING ASSOCIATIONS OF CHILD/FAMILY, HEAD START, AND KINDERGARTEN CHARACTERISTICS WITH CHILDREN'S OUTCOMES: ANALYTIC APPROACH

In this summary, we describe the analytic approach used in the two sets of multivariate analyses described in sections D and E. The first set of analyses (as described in section D) presents associations between children's school readiness skills at the end of Head Start and their developmental outcomes at the end of kindergarten. We examine the associations between the same skills (for example, PPVT-4 vocabulary) at the end of Head Start and kindergarten. We also examine relationship of skills in one area (for example, early mathematics) with skills in other areas (behavior problems). The second set (as described in section E) depicts children's cognitive and social-emotional trajectories from Head Start entry through the end of kindergarten. These analyses also describe the relationship between these trajectories and child, family, and Head Start classroom (and program) characteristics. Finally, we describe the relationship between the diversity in children's skills as they enter the Head Start program and their growth trajectories. Tables depicting the results of both sets of analyses follow.

ASSOCIATIONS BETWEEN CHILDREN'S SCHOOL READINESS SKILLS AT THE END OF HEAD START AND KINDERGARTEN DEVELOPMENTAL OUTCOMES

We used ordinary least squares (OLS) regressions to examine the associations between children's school readiness skills at the end of Head Start and their developmental outcomes at the end of kindergarten, controlling for child/family, Head Start, and kindergarten characteristics. As children move from Head Start to kindergarten, they are no longer clustered within classrooms or schools; thus, individual children's outcomes are assumed independent of other children in the sample. Similar to the descriptive tables in prior sections, the analyses are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

We estimated models of children's developmental status at the end of kindergarten. Children's status at the end of Head Start was included as predictor variables representing school readiness skills. Kindergarten outcomes included language and literacy (PPVT-4, Woodcock-Johnson III [WJ III] Letter-Word Identification, WJ III Word Attack), math skills (WJ III Applied Problems, ECLS mathematics), and social-emotional development (teacher ratings of children's social skills and behavior problems). The language, literacy, and mathematics outcomes were measured using equal-interval W-scores or IRT scores to look at absolute progress rather than relative to peers and to facilitate interpretation of variation across scores. The ECLS Mathematics scores are IRT scores on a metric of number of items in the assessment battery. To compare results across the different measures, regression results are presented as effect sizes (ES)—the change in the outcome in standard deviation units associated with an increase of one standard deviation in the school readiness skill. To aid interpretability of estimates in effect size terms, all categorical variables were dummy coded, and all continuous variables were z-scored.

The school readiness skills measured at the end of Head Start included language and literacy, math, and social-emotional

development. School readiness measures parallel the kindergarten outcomes (with the exception of Word Attack, which was assessed for the first time in the spring of kindergarten). An additional social-emotional rating to tap school readiness included children's approaches to learning (Preschool Learning Behavior Scale [PLBS] competence/motivation). The analyses presented here include two measures of mathematics as outcomes: WJ III Applied Problems and ECLS mathematics. The correlations between these two measures at the end of Head Start was quite high (r = 0.89). Thus, we opted to use only one measure of math skills at the end of Head Start as a predictor in each model to avoid collinearity problems. For all outcomes except Applied Problems, we included ECLS mathematics as the school readiness predictor because it measures a broader set of skills (early mathematics, geometry, patterns, measurement) than WJ III Applied Problems. In the model for Applied Problems in kindergarten, we used the same measure from the end of Head Start as the school readiness predictor to measure the same skills over time. In terms of approaches to learning, the PLBS includes several subscales; the PLBS learning behavior measure of children's attention and persistence was not included as a school readiness predictor given high correlation with behavior problems at the same time point (r = -0.87). Since we included problem behaviors as an outcome, we focused on the level of behavior problems at the end of Head Start as a school readiness skill.

For each outcome, the analysis included all school readiness skills in order to examine the association of a skill using the same measure over time (for example, PPVT-4 vocabulary) as well to examine cross-domain relationships with different skills. To examine the association of school readiness skills and kindergarten developmental outcomes net of other factors, we included several child/family, Head Start, and kindergarten characteristics as background controls, such as child gender, maternal education, Head Start program type, and kindergarten class size. Thus, we estimated four models for each of the outcomes of interest. In Model 1, we included the school readiness skills of children at the end of Head Start. In Model 2, we added child and family characteristics. In Model 3, we added Head Start characteristics. In Model 4, we added kindergarten characteristics.

The child and family characteristics included child age at the time of the spring kindergarten assessment (as well as the time interval between assessments), gender, race/ethnicity, primary household language, and maternal education at Head Start entry, and poverty status, maternal depressive symptoms, joint book-reading, and number of books in the home at the end of Head Start. We selected time points for background characteristics based on how likely they are to shift over time (that is, household income and maternal depression may be more likely to change across one or two years than characteristics such as maternal education or household language).

The Head Start characteristics included Head Start exposure (that is, one year for the 4-year-old cohort versus two years for the 3-year-old cohort) and the mean and variation in peer abilities and peer social skills at the end of Head Start. The peer measures reflect aggregate scores for all children in the Head Start classroom. Peer abilities reflect the same measure as the outcome investigated, except for WJ III Word Attack, social skills, and problem behaviors. For WJ III Word Attack, peer ability is measured by the mean and

variation in WJ III Letter-Word Identification scores. For social skills and problem behavior outcomes, peer ability is measured by the mean and variation in PPVT-4 scores. We also include a series of dichotomous variables to describe the child's Head Start classroom experiences. Head Start experience indicators included whether the child's Head Start classroom had Early Childhood Environment Rating Scale-Revised (ECERS-R) Teaching and Interactions and Provisions for Learning scores of at least "good quality" (5 or higher), the child's Head Start classroom had Classroom Assessment Scoring System (CLASS) Instructional Support scores of "middle" quality (3 or higher), the child always had a teacher with a bachelor's degree (for example, fall 2006, spring 2007, and spring 2008), and the child always attended a full-day Head Start classroom. An index collapsing these indicators was not found to be significant.

The kindergarten characteristics included teacher education (graduate degree versus not), program type (full-day versus half-day), class size, percentage of kindergarten class with limited English proficiency, percentage of kindergarten class eligible to receive free- or reduced-price lunch, and the teacher rating of kindergarten classroom behavior.

Tables D.1 through D.7 present the multivariate analyses for each outcome and model step.

Associations of Child/Family and Head Start Characteristics with Children's Development

We used two-level hierarchical linear models (HLM) to examine the relationships of child/family and Head Start characteristics with children's development at the end of Head Start and their developmental progress from Head Start entry to the end of kindergarten. We also used two-level models to examine the relationship of children's relative abilities at program entry (that is, lower, average, or higher ability) to their outcomes and developmental progress during this time period. In our models, developmental outcomes are nested within children, recognizing that individual children's outcomes over time are not independent of each other. The analyses of children's cognitive development focus on the child assessment measures conducted in English. The analyses are weighted at the child levels in the HLM models. Similar to the descriptive findings, the analyses are weighted to represent all children who entered Head Start for the first time in fall 2006, completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009. The exact sample size varies by outcome and variables included in the model.

Outcomes in the models included language and literacy (PPVT-4, Woodcock-Johnson [WJ] Letter-Word Identification), mathematics (WJ Applied Problems, ECLS mathematics), and social-emotional development (teacher ratings of children's social skills and behavior problems). Analyses using the PPVT-4 include all children with a valid score, because all children were administered the PPVT-4 regardless of home language or language of assessment. However, analyses for the WJ III subtests and the ECLS only include children assessed in English.

As in the regression analyses, the language, literacy, and mathematics outcomes were measured using equal-interval W scores or IRT scores, and all outcomes were z-scored. The z-scored W scores are a marker of absolute, rather than relative, progress. The ECLS mathematics scores are IRT-scale scores on a metric of number of items in the assessment battery. The models

examining children's social-emotional outcomes used z-scored summative scores. In addition, to aid interpretability of estimates in effect size terms, all categorical variables were dummy coded, and all continuous variables were centered at the sample mean. The estimated models included time-invariant variables, having identical values across waves for each child. For example, child/family variables were derived at Head Start entry and indicators representing the child's Head Start experience were used along with peer characteristics at Head Start entry. Variables were entered in the estimated models to predict the intercept parameter—which in these models was set to the end of Head Start, or the spring of the prekindergarten year. Thus, coefficients in the models should be interpreted as the relationship of a given variable, controlling for other variables in the model, to children's skills and development at the end of their Head Start experience. Variables were also entered to predict the slope parameter, with coefficients interpreted as children's growth per month from Head Start entry to the end of kindergarten.

The child/family variables included the child's exposure to Head Start (one versus two years), gender, race/ethnicity, primary language spoken to the child at home, poverty ratio, joint book reading at least three times weekly, number of books in the home, maternal education, and parent depressive symptoms. All child/family variables were derived from the fall 2006 data wave, when the children were first entering the Head Start program. The Head Start classroom/program variables included mean peer abilities at Head Start entry, variation in peer abilities at Head Start entry, and indicators representing the child's Head Start experience. The latter indicators included whether (1),(2) the child's Head Start classroom had Early Childhood Environment Rating Scale-Revised (ECERS-R) Teaching and Interactions, and Provisions for Learning scores of at least "good" quality (5 or higher), (3) the child's Head Start classroom had Classroom Assessment Scoring System (CLASS) Instructional Support scores of at least "middle" quality (3 or higher), (4) the child always had a Head Start teacher with at least a bachelor's degree, and (5) the child always attended a full-day Head Start class.

Peer outcomes (ability, social skills) are represented by variables that reflect aggregate outcomes for all children in the classroom. For all cognitive outcomes, models included the mean peer ability and variation in peer ability on that particular outcome. For social-emotional outcomes, models included mean and variation in peer abilities on the PPVT-4 and in children's social skills. We include PPVT-4 scores in these latter models, because both social skills and language ability of peers may influence classroom dynamics in ways that can affect a child's behavior. Initially, kindergarten covariates were included in the models (that is, teacher education, program type, class size, percentage of limited English proficient (LEP, or dual language learners)) and free or reduced-price lunch classmates, and teacher-reported classroom behavior). However, these covariates were dropped from the analyses, because they were unrelated to children's trajectories and to allow for more parsimonious models.

To compare results across the different measures, results are presented as effect sizes (ES). These are interpreted as the change in the outcome or amount of annual growth associated with an increase of one standard deviation in the child/family or classroom/program characteristic.

Children's Cognitive and Social-Emotional Outcomes

First, we estimated models to assess the relationship of child/family and Head Start characteristics to children's receptive vocabulary, letter-word knowledge, and applied problems skills and development (see Tables E.1 through E.6). As in the descriptive reporting, only children with valid assessment scores are included in the analyses (for example, children who did not establish a basal on the PPVT-4 were excluded from the appropriate models). In addition, only children with completed teacher ratings across time points are included in the analyses.

We estimated two models for each child outcome. In Model 1 we included child/family characteristics. In Model 2 we added Head Start classroom/program characteristics. In both models we included children's developmental outcomes in level 1. The level 2 model included child/family and/or Head Start characteristics. Here, we report the findings from Model 2, which includes both child/family and Head Start characteristics.

Children's Entering Abilities

Finally, models assessing the relationship of child/family and Head Start characteristics to children's receptive vocabulary, letter-word knowledge, and applied problems skills and development were estimated, adding in whether children's entering abilities were of lower, medium, or higher levels (as compared to peers; see Tables E.7 through E.12). For each outcome, ability groups were defined in equal thirds, with the lower ability group represented by those in the bottom third in that particular area, those in the middle ability group represented by the middle third, and those in the higher ability group represented in the top third. Models were estimated using the same approaches as outlined above.

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SECTION D

ASSOCIATIONS BETWEEN CHILDREN'S SCHOOL READINESS SKILLS AT THE END OF HEAD START

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Table D.1. Association of Children's School Readiness Skills with Spring Kindergarten Vocabulary (PPVT-4), Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	0.66 ***	0.57 ***	0.57 ***	0.55 ***
WJ III Letter-Word Identification	-0.07 **	-0.05 *	-0.05	-0.05
ECLS-B Mathematics	0.18 ***	0.17 ***	0.14 ***	0.15 ***
Social skills	0.07 **	0.08 **	0.08	0.07
Problem behaviors	0.05	0.01	0.00	-0.03
PLBS competence/motivation	0.00	-0.01	-0.05	-0.07
Child/Family Characteristics				
Age (months)		0.03	0.04	0.01
Gender (boy=1)		0.08 *	0.08	0.05
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		-0.16 **	-0.08	-0.09
Hispanic/Latino		-0.22 ***	-0.08	-0.03
Other, Non-Hispanic		-0.06	0.13	0.04
Primary language spoken to child at home at Head Start entry (non-English=1)		-0.01	-0.08	0.00
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.07	0.12 *	0.08
At least voc/tech diploma		0.15 **	0.21 ***	0.24 ***
Parent depressive symptoms at Head Start exit		0.02	0.00	0.02
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		0.09	0.10	0.04
101 – 130% threshold		0.06	0.05	0.01
Above 130% threshold		0.09	0.10	0.10
Joint book reading 3+ times per week at Head Start exit		-0.05	-0.03	0.02
Number of books in home at Head Start exit		0.03	0.04	0.03
Assessment time interval (months)		0.07 *	0.10	0.10
Head Start Characteristics				
Peer abilities (PPVT-4) at Head Start exit			0.03	0.00
Variation of peer abilities at Head Start exit			0.01	0.02
Peer social skills at Head Start exit			-0.03	-0.04
Variation of peer social skills at Head Start exit			0.00	0.00
"Good" ECERS-R Teaching and Interactions			0.14	0.15
"Good" ECERS-R Provisions for Learning			-0.08	-0.09
"Middle" CLASS Instructional Support			0.14	0.16
Head Start teacher have Bachelor's degree or higher			0.07	0.04
Head Start full-day program			0.01	-0.02
Exposure to Head Start (one year=1)			-0.01	-0.04

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				-0.02
Program type (full-day=1)				0.02
Class size				-0.05
Percentage of kindergarten class with limited English proficiency				-0.11 **
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				-0.03
Kindergarten classroom behavior				
Misbehaves often				-0.04
Misbehaves occasionally				0.07
Behaves well (referent)				
n=	1123	1056	726	643

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; ECLS = Early Childhood Longitudinal Study; PLBS = Preschool Learning Behaviors Scale; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<0.05; **p<0.01; ***p<0.001.

Table D.2. Association of Children's School Readiness Skills with Spring Kindergarten WJ III Letter-Word Identification Skills, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	-0.01	-0.02	0.07	0.07
WJ III Letter-Word Identification	0.31 ***	0.32 ***	0.31 ***	0.37 ***
ECLS-B Mathematics	0.32 ***	0.33 ***	0.31 ***	0.28 ***
Social skills	0.08 *	0.10 **	-0.01	0.01
Problem behaviors	0.07	0.06	-0.02	-0.07
PLBS competence/motivation	0.08 *	0.05	0.00	-0.05
Child/Family Characteristics				
Age (months)		0.04	0.05	0.02
Gender (boy=1)		0.00	-0.03	0.01
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		0.00	0.04	0.02
Hispanic/Latino		-0.10	0.04	0.10
Other, Non-Hispanic		0.03	0.17	0.01
Primary language spoken to child at home at Head Start entry (non-English=1)		0.12	0.16	0.23 *
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.05	0.12	0.10
At least voc/tech diploma		0.21 ***	0.33 ***	0.29 ***
Parent depressive symptoms at Head Start exit		0.00	-0.07 *	-0.04
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		-0.03	-0.03	-0.08
101 – 130% threshold		0.10	0.02	-0.02
Above 130% threshold		0.14	0.11	0.07
Joint book reading 3+ times per week at Head Start exit		0.08	0.06	0.06
Number of books in home at Head Start exit		-0.07 **	-0.06 *	-0.06
Assessment time interval (months)		0.16 ***	0.37 ***	0.36 ***
Head Start Characteristics				
Peer abilities (WJ III Letter-Word Identification skills) at Head Start exit			0.03	-0.01
Variation of peer abilities at Head Start exit			0.10 ***	0.10 **
Peer social skills at Head Start exit			0.02	-0.01
Variation of peer social skills at Head Start exit			0.02	0.00
"Good" ECERS-R Teaching and Interactions			0.15	0.00
"Good" ECERS-R Provisions for Learning			-0.15	-0.07
"Middle" CLASS Instructional Support			-0.08	0.14
Head Start teacher have Bachelor's degree or higher			-0.12	-0.11
Head Start full-day program			-0.16 *	-0.20 **
Exposure to Head Start (one year=1)			0.16 *	0.14

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				0.00
Program type (full-day=1)				0.41 ***
Class size				-0.04
Percentage of kindergarten class with limited English proficiency				-0.03
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				-0.07 *
Kindergarten classroom behavior				
Misbehaves often				-0.17
Misbehaves occasionally				-0.12
Behaves well (referent)				
n=	1123	1056	673	596

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; ECLS = Early Childhood Longitudinal Study; PLBS = Preschool Learning Behaviors Scale; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<0.05; **p<0.01; ***p<0.001.

Table D.3. Association of Children's School Readiness Skills with Spring Kindergarten WJ III Word Attack Skills, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	-0.01	0.00	0.11 *	0.11
WJ III Letter-Word Identification	0.16 ***	0.18 ***	0.22 ***	0.24 ***
ECLS-B Mathematics	0.36 ***	0.35 ***	0.34 ***	0.30 ***
Social skills	0.01	0.02	-0.12 *	-0.16 *
Problem behaviors	-0.05	-0.06	-0.15 **	-0.23 ***
PLBS competence/motivation	0.04	0.02	-0.02	-0.08
Child/Family Characteristics				
Age (months)		0.02	0.05	0.04
Gender (boy=1)		0.06	0.07	0.08
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		0.04	0.09	0.00
Hispanic/Latino		0.05	0.18	0.20
Other, Non-Hispanic		0.19	0.31 *	0.11
Primary language spoken to child at home at Head Start entry (non-English=1)		0.04	0.10	0.24 *
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.01	0.03	0.05
At least voc/tech diploma		0.11	0.13	0.11
Parent depressive symptoms at Head Start exit		0.01	-0.03	-0.01
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		-0.07	-0.05	-0.09
101 – 130% threshold		-0.01	-0.03	-0.11
Above 130% threshold		-0.04	-0.02	-0.08
Joint book reading 3+ times per week at Head Start exit		0.01	-0.03	-0.01
Number of books in home at Head Start exit		-0.06 *	-0.07	-0.06
Assessment time interval (months)		0.16 ***	0.26 ***	0.20 **
Head Start Characteristics				
Peer abilities (WJ III Letter-Word Identification) at Head Start exit			0.00	0.05
Variation of peer abilities at Head Start exit			0.03	0.06
Peer social skills at Head Start exit			0.02	0.03
Variation of peer social skills at Head Start exit			-0.03	-0.03
"Good" ECERS-R Teaching and Interactions			0.08	-0.01
"Good" ECERS-R Provisions for Learning			-0.18	-0.17
"Middle" CLASS Instructional Support			0.13	0.23
Head Start teacher have Bachelor's degree or higher			-0.05	-0.04
Head Start full-day program			-0.15	-0.16 *
Exposure to Head Start (one year=1)			0.05	0.01

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				0.08
Program type (full-day=1)				0.32 **
Class size				0.01
Percentage of kindergarten class with limited English proficiency				-0.13 *
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				0.03
Kindergarten classroom behavior				
Misbehaves often				-0.28 *
Misbehaves occasionally				-0.12
Behaves well (referent)				
n=	1108	1043	663	588

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

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*p<0.05; **p<0.01; ***p<0.001.

Table D.4. Association of Children's School Readiness Skills with Spring Kindergarten WJ III Applied Problems, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	0.16 ***	0.13 **	0.11 *	0.09
WJ III Letter-Word Identification	0.06 *	0.08 **	0.06	0.11 **
WJ III Applied Problems	0.35 ***	0.34 ***	0.35 ***	0.34 ***
Social skills	0.06	0.08 *	0.04	0.00
Problem behaviors	0.02	0.00	-0.04	-0.08
PLBS competence/motivation	0.04	0.00	0.00	0.00
Child/Family Characteristics				
Age (months)		0.07 **	0.07 *	0.05
Gender (boy=1)		0.07	0.14 *	0.14 *
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		-0.09	-0.02	-0.05
Hispanic/Latino		-0.16	-0.05	0.00
Other, Non-Hispanic		-0.15	0.02	-0.05
Primary language spoken to child at home at Head Start entry (non-English=1)		0.20 **	0.22 *	0.33 **
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.07	0.15	0.13
At least voc/tech diploma		0.20 **	0.31 ***	0.26 **
Parent depressive symptoms at Head Start exit		0.02	0.00	0.00
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		0.12	0.14	0.13
101 – 130% threshold		-0.06	0.03	0.03
Above 130% threshold		0.01	0.06	0.12
Joint book reading 3+ times per week at Head Start exit		-0.01	0.03	0.05
Number of books in home at Head Start exit		0.04	0.07 *	0.08 *
Assessment time interval (months)		0.06	0.15 *	0.11
Head Start Characteristics				
Peer abilities (WJ III Applied Problems) at Head Start exit			0.01	0.01
Variation of peer abilities at Head Start exit			0.07 *	0.09 *
Peer social skills at Head Start exit			0.02	0.02
Variation of peer social skills at Head Start exit			0.07 *	0.08
"Good" ECERS-R Teaching and Interactions			0.11	0.05
"Good" ECERS-R Provisions for Learning			-0.07	-0.10
"Middle" CLASS Instructional Support			0.06	0.18
Head Start teacher have Bachelor's degree or higher			-0.07	-0.07
Head Start full-day program			0.14	0.09
Exposure to Head Start (one year = 1)			0.09	0.06

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				0.03
Program type (full-day=1)				0.33 **
Class size				0.00
Percentage of kindergarten class with limited English proficiency				-0.08
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				-0.04
Kindergarten classroom behavior				
Misbehaves often				-0.07
Misbehaves occasionally				-0.04
Behaves well (referent)				
n=	1104	1039	655	578

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; ECLS = Early Childhood Longitudinal Study; PLBS = Preschool Learning Behaviors Scale; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<0.05; **p<0.01; ***p<0.001.

Table D.5. Association of Children's School Readiness Skills with Spring Kindergarten ECLS Mathematics, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	0.10 **	0.10 **	0.09 *	0.07
WJ III Letter-Word Identification	0.06 *	0.07 **	0.08 *	0.11 **
ECLS-B Mathematics	0.55 ***	0.53 ***	0.54 ***	0.55 ***
Social skills	0.07 *	0.09 **	0.07	0.05
Problem behaviors	0.02	0.02	0.00	-0.06
PLBS competence/motivation	0.05	0.03	0.01	-0.01
Child/Family Characteristics				
Age (months)		0.06 **	0.06 *	0.05
Gender (boy=1)		0.09 *	0.16 **	0.18 **
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		-0.01	0.05	0.06
Hispanic/Latino		-0.07	0.04	0.11
Other, Non-Hispanic		-0.13	0.01	0.00
Primary language spoken to child at home at Head Start entry (non-English=1)		0.28 ***	0.24 **	0.34 ***
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.12 *	0.13 *	0.11
At least voc/tech diploma		0.24 ***	0.29 ***	0.22 **
Parent depressive symptoms at Head Start exit		0.01	-0.02	-0.02
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		0.11	0.08	0.06
101 – 130% threshold		-0.05	-0.14	-0.16
Above 130% threshold		0.06	0.04	0.10
Joint book reading 3+ times per week at Head Start exit		0.04	0.08	0.11
Number of books in home at Head Start exit		0.01	0.03	0.03
Assessment time interval (months)		0.14 ***	0.20 ***	0.15 *
Head Start Characteristics				
Peer abilities (ECLS-B Mathematics) at Head Start exit			-0.03	-0.03
Variation of peer abilities at Head Start exit			-0.07 *	-0.06
Peer social skills at Head Start exit			-0.01	-0.02
Variation of peer social skills at Head Start exit			0.07 *	0.07 *
"Good" ECERS-R Teaching and Interactions			0.12	0.06
"Good" ECERS-R Provisions for Learning			-0.06	-0.12
"Middle" CLASS Instructional Support			0.09	0.24
Head Start teacher have Bachelor's degree or higher			-0.06	-0.07
Head Start full-day program			-0.04	-0.09
Exposure to Head Start (one year = 1)			-0.07	-0.09

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				-0.02
Program type (full-day=1)				0.28 **
Class size				-0.01
Percentage of kindergarten class with limited English proficiency				-0.10 *
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				-0.06
Kindergarten classroom behavior				
Misbehaves often				-0.14
Misbehaves occasionally				-0.02
Behaves well (referent)				
n=	1125	1058	697	619

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; ECLS = Early Childhood Longitudinal Study; PLBS = Preschool Learning Behaviors Scale; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<0.05; **p<0.01; ***p<0.001.

Table D.6. Association of Children's School Readiness Skills with Spring Social Skills, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	-0.09 *	0.00	0.04	0.04
WJ III Letter-Word Identification	0.07 *	0.05	0.06	0.08
ECLS-B Mathematics	0.19 ***	0.17 ***	0.14 *	0.09
Social skills	0.05	0.04	0.06	0.12
Problem behaviors	-0.29 ***	-0.25 ***	-0.28 ***	-0.31 ***
PLBS competence/motivation	-0.03	-0.01	-0.01	-0.03
Child/Family Characteristics				
Age (months)		0.06 *	0.03	0.00
Gender (boy=1)		-0.25 ***	-0.19 **	-0.16 *
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		0.26 **	0.20	0.22
Hispanic/Latino		0.33 ***	0.35 **	0.37 **
Other, Non-Hispanic		0.26 *	0.31 *	0.31 *
Primary language spoken to child at home at Head Start entry (non-English=1)		0.15	0.15	0.18
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.01	-0.04	-0.07
At least voc/tech diploma		-0.07	-0.11	-0.13
Parent depressive symptoms at Head Start exit		0.03	0.04	0.03
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		0.00	0.02	-0.02
101 – 130% threshold		0.04	0.01	-0.04
Above 130% threshold		-0.04	0.00	-0.01
Joint book reading 3+ times per week at Head Start exit		0.09	0.18 *	0.17
Number of books in home at Head Start exit		0.02	0.02	0.05
Assessment time interval (months)		0.02	-0.07	-0.09
Head Start Characteristics				
Peer abilities (PPVT-4) at Head Start exit			-0.01	0.04
Variation of peer abilities at Head Start exit			0.01	0.03
Peer social skills at Head Start exit			-0.11	-0.15 *
Variation of peer social skills at Head Start exit			0.01	0.03
"Good" ECERS-R Teaching and Interactions			0.06	-0.03
"Good" ECERS-R Provisions for Learning			0.02	0.08
"Middle" CLASS Instructional Support			-0.27	-0.18
Head Start teacher have Bachelor's degree or higher			-0.19 **	-0.23 **
Head Start full-day program			0.34 ***	0.37 ***
Exposure to Head Start (one year=1)			0.06	0.12

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				-0.10
Program type (full-day=1)				0.16
Class size				0.03
Percentage of kindergarten class with limited English proficiency				-0.04
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				0.11 **
Kindergarten classroom behavior				
Misbehaves often				-0.22
Misbehaves occasionally				-0.21 **
Behaves well (referent)				
n=	1119	1052	723	641

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

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*p<0.05; **p<0.01; ***p<0.001.

Table D.7. Association of Children's School Readiness Skills with Spring Problem Behaviors, Controlling Child, Family, Head Start, and Kindergarten Characteristics: Spring 2008 or Spring 2009

	Model 1	Model 2	Model 3	Model 4
School Readiness Skills				
PPVT-4	0.15 ***	0.06	-0.01	-0.06
WJ III Letter-Word Identification	-0.09 **	-0.08 *	-0.08	-0.09 *
ECLS-B Mathematics	-0.25 ***	-0.23 ***	-0.21 ***	-0.13 *
Social skills	-0.01	-0.01	0.00	-0.07
Problem behaviors	0.43 ***	0.39 ***	0.42 ***	0.41 ***
PLBS competence/motivation	0.08 *	0.09 *	0.08	0.09
Child/Family Characteristics				
Age (months)		-0.06 *	-0.03	0.00
Gender (boy=1)		0.29 ***	0.25 ***	0.21 **
Child's race/ethnicity				
White, Non-Hispanic (referent)				
African American, Non-Hispanic		-0.15	-0.10	-0.11
Hispanic/Latino		-0.30 ***	-0.31 **	-0.31 *
Other, Non-Hispanic		-0.11	-0.11	-0.06
Primary language spoken to child at home at Head Start entry (non-English=1)		-0.21 **	-0.19	-0.14
Maternal education at Head Start entry				
Less than high school (referent)				
High school/GED		0.02	0.05	-0.05
At least voc/tech diploma		0.05	0.07	-0.01
Parent depressive symptoms at Head Start exit		-0.04	-0.05	-0.03
Poverty ratio at Head Start exit				
Less than 50% threshold (referent)				
50 – 100% threshold		-0.08	-0.02	0.08
101 – 130% threshold		-0.10	0.01	0.14
Above 130% threshold		0.01	0.03	0.16
Joint book reading 3+ times per week at Head Start exit		0.06	0.02	0.10
Number of books in home at Head Start exit		-0.04	-0.05	-0.08 *
Assessment time interval (months)		-0.07	0.02	0.05
Head Start Characteristics				
Peer abilities (PPVT-4) at Head Start exit			0.04	-0.01
Variation of peer abilities at Head Start exit			0.01	0.00
Peer social skills at Head Start exit			0.06	0.09
Variation of peer social skills at Head Start exit			0.02	-0.01
"Good" ECERS-R Teaching and Interactions			-0.04	0.03
"Good" ECERS-R Provisions for Learning			-0.05	-0.06
"Middle" CLASS Instructional Support			0.04	-0.01
Head Start teacher have Bachelor's degree or higher			0.21 **	0.22 **
Head Start full-day program			-0.33 ***	-0.36 ***
Exposure to Head Start (one year=1)			-0.11	-0.18 *

	Model 1	Model 2	Model 3	Model 4
Kindergarten Characteristics				
Teacher education (graduate degree=1)				0.07
Program type (full-day=1)				0.00
Class size				-0.03
Percentage of kindergarten class with limited English proficiency				-0.01
Percentage of kindergarten class eligible to receive free- or reduced-price lunch				-0.13 ***
Kindergarten classroom behavior				
Misbehaves often				0.32 **
Misbehaves occasionally				0.27 ***
Behaves well (referent)				
n=	1125	1058	726	643

Source: Spring 2007, Spring 2008, or Spring 2009 FACES Direct Child Assessment; Fall 2006 and Spring 2007 or Spring 2008 FACES Parent Interview; Fall 2006 and Spring 2007 or Spring 2008 FACES Head Start Teacher Interview; Spring 2007 or Spring 2008 FACES Head Start Teacher Child Report; Spring 2007 FACES Classroom Observation; Spring 2008 or Spring 2009 FACES Kindergarten Teacher Questionnaire and Teacher Child Report.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

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*p<0.05; **p<0.01; ***p<0.001.

SECTION E

KINDERGARTEN DEVELOPMENTAL OUTCOMES AND THEIR GROWTH TRAJECTORIES FROM HEAD START ENTRY THROUGH KINDERGARTEN

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Table E.1. Association of Child/Family and Head Start Characteristics with PPVT-4 Scores

	Model 1	Model 2
Intercept	0.38***	0.37***
Child/Family		
Exposure to Head Start (1 year)	-0.02	-0.20***
Gender (boy)	-0.06	-0.07
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.35***	-0.16*
Hispanic/Latino	-0.22*	-0.04
Other, Non-Hispanic	-0.06	-0.02
Primary language spoken to child (non-English)	-0.55***	-0.50***
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.05	0.06
101-130% of poverty	0.16	0.15
Above 130% of poverty	0.14	0.16*
Joint book reading 3+ times per week at Head Start entry	0.09	0.06
# of books in home at Head Start entry	0.002*	0.002**
Maternal education		
Less than high school (referent)		
High school/GED	0.08	0.04
At least voc/tech diploma	0.22***	0.13
Parent depressive symptoms at Head Start entry	-0.00	-0.00
Head Start class/program		
Peer abilities at Head Start entry		0.47***
Variation of peer abilities at Head Start entry		0.40***
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.08
“Good” ECERS-R Provisions for Learning		-0.12
“Middle” CLASS Instructional Support		0.09
Head Start teacher has at least BA		0.05
Head Start full-day program		-0.02
Slope	-0.00	-0.00
Child/Family		
Exposure to Head Start (1 year)	-0.03***	-0.03***
Gender (boy)	0.01	0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.01	-0.00
Hispanic/Latino	-0.01	-0.01
Other, Non-Hispanic	0.01	0.01
Primary language spoken to child (non-English)	0.01	0.01
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.01**	0.01**
101-130% of poverty	0.01	0.01
Above 130% of poverty	0.01**	0.01***
Joint book reading 3+ times per week at Head Start entry	0.00	0.00
Books in home at Head Start entry	0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	-0.00	-0.00
At least voc/tech diploma	0.00	0.00
Parent depressive symptoms at Head Start entry	-0.00	-0.00

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		-0.00
Variation of peer abilities at Head Start entry		0.01
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.00
"Good" ECERS-R Provisions for Learning		0.00
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.00
Head Start full-day program		-0.01*

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 684 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition.

*p<.05; **p<.01; ***p<.001.

Table E.2. Association of Child/Family and Head Start Characteristics with WJ III Letter-Word (LW) Scores

	Model 1	Model 2
Intercept	-0.06	0.12
Child/Family		
Exposure to Head Start (1 year)	-0.08***	-0.28***
Gender (boy)	-0.23*	-0.21*
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.30*	0.28*
Hispanic/Latino	0.24	0.24
Other, Non-Hispanic	0.47*	0.38*
Primary language spoken to child (non-English)	0.03	0.01
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.02	-0.06
101-130% of poverty	0.06	0.01
Above 130% of poverty	0.00	-0.09
Joint book reading 3+ times per week at Head Start entry	-0.03	-0.00
# of books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.21	0.15
At least voc/tech diploma	0.25*	0.19
Parent depressive symptoms at Head Start entry	-0.00	0.00
Head Start class/program		
Peer abilities at Head Start entry		0.57***
Variation of peer abilities at Head Start entry		0.06
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.09
“Good” ECERS-R Provisions for Learning		-0.23
“Middle” CLASS Instructional Support		0.25
Head Start teacher has at least BA		-0.04
Head Start full-day program		0.03
Slope	0.00	0.00
Child/Family		
Exposure to Head Start (1 year)	-0.03***	-0.02***
Gender (boy)	0.00	0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.00	-0.00
Hispanic/Latino	0.01	0.01
Other, Non-Hispanic	0.01	0.01
Primary language spoken to child (non-English)	-0.00	-0.01
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.01	0.01
101-130% of poverty	0.01	0.01
Above 130% of poverty	-0.00	0.00
Joint book reading 3+ times per week at Head Start entry	0.01	0.01
Books in home at Head Start entry	-0.00*	-0.00*
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.00
At least voc/tech diploma	0.01	0.01
Parent depressive symptoms at Head Start entry	-0.00	-0.001*

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		-0.01**
Variation of peer abilities at Head Start entry		-0.00
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.00
"Good" ECERS-R Provisions for Learning		-0.01
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.00
Head Start full-day program		-0.01

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 478 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<.05; **p<.01; ***p<.001.

Table E.3. Association of Child/Family and Head Start Characteristics with WJ III Applied Problems (AP) Scores

	Model 1	Model 2
Intercept	0.14	0.02
Child/Family		
Exposure to Head Start (1 year)	-0.10	-0.16*
Gender (boy)	-0.17	-0.19*
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.16	0.00
Hispanic/Latino	-0.01	0.08
Other, Non-Hispanic	0.04	0.06
Primary language spoken to child (non-English)	-0.12	-0.13
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.08	0.08
101-130% of poverty	-0.06	-0.01
Above 130% of poverty	-0.03	0.02
Joint book reading 3+ times per week at Head Start entry	-0.01	0.08
# of books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.27**	0.21*
At least voc/tech diploma	0.36***	0.31***
Parent depressive symptoms at Head Start entry	-0.01	-0.00
Head Start class/program		
Peer abilities at Head Start entry		0.48***
Variation of peer abilities at Head Start entry		0.06
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.22*
“Good” ECERS-R Provisions for Learning		-0.27
“Middle” CLASS Instructional Support		-0.12
Head Start teacher has at least BA		0.06
Head Start full-day program		0.07
Slope	0.00	0.00
Child/Family		
Exposure to Head Start (1 year)	-0.02**	-0.01**
Gender (boy)	0.00	0.01
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.01	-0.00
Hispanic/Latino	-0.00	-0.00
Other, Non-Hispanic	-0.01	-0.01
Primary language spoken to child (non-English)	0.00	-0.00
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	-0.01	-0.01
101-130% of poverty	0.00	0.00
Above 130% of poverty	-0.00	0.00
Joint book reading 3+ times per week at Head Start entry	0.01	0.01
Books in home at Head Start entry	0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.01
At least voc/tech diploma	0.01	0.01*
Parent depressive symptoms at Head Start entry	0.00	0.00

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		-0.03***
Variation of peer abilities at Head Start entry		-0.00
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.01
"Good" ECERS-R Provisions for Learning		-0.02
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.01
Head Start full-day program		-0.01

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 426 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<.05; **p<.01; ***p<.001.

Table E.4. Association of Child/Family and Head Start Characteristics with ECLS-B Mathematics Scores

	Model 1	Model 2
Intercept	0.04	0.13
Child/Family		
Exposure to Head Start (1 year)	0.10	-0.25***
Gender (boy)	-0.19*	-0.15*
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.13	0.05
Hispanic/Latino	0.04	0.10
Other, Non-Hispanic	0.23	0.24
Primary language spoken to child (non-English)	-0.13	-0.09
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.09	0.08
101-130% of poverty	-0.02	0.01
Above 130% of poverty	0.02	0.08
Joint book reading 3+ times per week at Head Start entry	0.05	0.04
# of books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.17	0.12
At least voc/tech diploma	0.28*	0.16
Parent depressive symptoms at Head Start entry	-0.01	-0.01
Head Start class/program		
Peer abilities at Head Start entry		0.64***
Variation of peer abilities at Head Start entry		-0.00
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.22
“Good” ECERS-R Provisions for Learning		-0.26
“Middle” CLASS Instructional Support		-0.16
Head Start teacher has at least BA		0.02
Head Start full-day program		0.04
Slope	0.00	0.00
Child/Family		
Exposure to Head Start (1 year)	-0.05***	-0.04***
Gender (boy)	0.01**	0.01***
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.00	0.00
Hispanic/Latino	0.00	0.01
Other, Non-Hispanic	-0.01	-0.01
Primary language spoken to child (non-English)	0.02*	0.01
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.00	0.00
101-130% of poverty	-0.01	-0.01
Above 130% of poverty	0.00	0.00
Joint book reading 3+ times per week at Head Start entry	0.01	0.01
Books in home at Head Start entry	-0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.00
At least voc/tech diploma	0.01*	0.01**
Parent depressive symptoms at Head Start entry	-0.00	-0.00

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		-0.01***
Variation of peer abilities at Head Start entry		-0.00
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.01
"Good" ECERS-R Provisions for Learning		0.00
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.00
Head Start full-day program		-0.01*

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 572 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; ECLS = Early Childhood Longitudinal Study.

*p<.05; **p<.01; ***p<.001.

Table E.5. Association of Child/Family and Head Start Characteristics with Social Skills Scores

	Model 1	Model 2
Intercept	-0.05	-0.00
Child/Family		
Exposure to Head Start (1 year)	0.09	-0.07
Gender (boy)	-0.35***	-0.36***
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.02	0.13
Hispanic/Latino	0.24*	0.36***
Other, Non-Hispanic	0.13	0.29**
Primary language spoken to child (non-English)	-0.04	-0.10
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.02	0.02
101-130% of poverty	-0.05	-0.06
Above 130% of poverty	-0.07	-0.05
Joint book reading 3+ times per week	0.13	0.14*
Books in home at Head Start entry	-0.00	-0.00
Maternal education at Head Start entry		
Less than high school (referent)		
High school/GED	0.02	-0.01
At least voc/tech diploma	0.10	-0.05
Parent depressive symptoms at Head Start entry	-0.01**	-0.01*
Head Start class/"program"		
Peer abilities at Head Start entry		0.14*
Variation of peer abilities at Head Start entry		0.22**
Peer social skills at entry		0.51***
Variation in social skills at entry		0.13
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.13
"Good" ECERS-R Provisions for Learning		-0.13
"Middle" CLASS Instructional Support		-0.11
Head Start teacher has at least BA		-0.11*
Head Start full-day program		0.07
Slope	-0.03**	-0.03**
Child/Family		
Exposure to Head Start (1 year)	-0.02***	-0.01*
Gender (boy)	-0.00	-0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.02***	0.02**
Hispanic/Latino	0.02***	0.02**
Other, Non-Hispanic	0.03*	0.02
Primary language spoken to child (non-English)	0.00	0.00
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.01	0.01*
101-130% of poverty	0.02	0.02*
Above 130% of poverty	0.01	0.01*
Joint book reading 3+ times per week at Head Start entry	0.02**	0.00
Books in home at Head Start entry	0.00*	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.00
At least voc/tech diploma	-0.02**	-0.01
Parent depressive symptoms at Head Start entry	0.00	-0.00

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		0.01
Variation of peer abilities at Head Start entry		-0.00
Peer social skills at entry		-0.03***
Variation in social skills at entry		0.00
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.01
"Good" ECERS-R Provisions for Learning		-0.01
"Middle" CLASS Instructional Support		-0.01
Head Start teacher has at least BA		-0.01
Head Start full-day program		0.00

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Head Start Teacher Child Report; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 678 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised.

*p<.05; **p<.01; ***p<.001.

Table E.6. Association of Child/Family and Head Start Characteristics with Problem Behaviors Scores

	Model 1	Model 2
Intercept	0.13	0.10
Child/Family		
Exposure to Head Start (1 year)	-0.08	0.02
Gender (boy)	0.44***	0.46***
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.06	-0.15
Hispanic/Latino	-0.42***	-0.51***
Other, Non-Hispanic	-0.14	-0.25
Primary language spoken to child (non-English)	0.05	0.10
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.06	-0.07
101-130% of poverty	-0.04	-0.03
Above 130% of poverty	0.14	0.11
Joint book reading 3+ times per week at Head Start entry	-0.13	-0.12
Books in home at Head Start entry	0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	-0.05	-0.06
At least voc/tech diploma	-0.18	-0.09
Parent depressive symptoms at Head Start entry	0.02*	0.02*
Head Start class/"program"		
Peer abilities at Head Start entry		-0.07
Variation of peer abilities at Head Start entry		-0.17*
Peer social skills at entry		-0.36***
Variation in social skills at entry		0.03
Head Start experience		
"Good" ECERS-R Teaching and Interactions		-0.14
"Good" ECERS-R Provisions for Learning		-0.13
"Middle" CLASS Instructional Support		0.04
Head Start teacher has at least BA		0.11
Head Start full-day program		-0.01
Slope	0.02*	0.02*
Child/Family		
Exposure to Head Start (1 year)	0.02***	0.01*
Gender (boy)	-0.00	-0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.01	-0.01
Hispanic/Latino	-0.02***	-0.02**
Other, Non-Hispanic	-0.01	-0.01
Primary language spoken to child (non-English)	-0.00	-0.00
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	-0.01	-0.01
101-130% of poverty	-0.01	-0.01
Above 130% of poverty	-0.01	-0.01
Joint book reading 3+ times per week at Head Start entry	0.00	0.00
Books in home at Head Start entry	-0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	-0.00	-0.00
At least voc/tech diploma	0.01	0.01
Parent depressive symptoms at Head Start entry	0.00	0.00

	Model 1	Model 2
Head Start class/"program"		
Peer abilities at Head Start entry		-0.00
Variation of peer abilities at Head Start entry		0.00
Peer social skills at entry		0.01***
Variation in social skills at entry		-0.02**
Head Start experience		
"Good" ECERS-R Teaching and Interactions		-0.01
"Good" ECERS-R Provisions for Learning		0.01
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.01
Head Start full-day program		-0.00

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Head Start Teacher Child Report; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 678 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised.

*p<.05; **p<.01; ***p<.001.

Table E.7 Association of Entering Skills, Child/Family and Head Start Characteristics with PPVT-4 Scores

	Model 1	Model 2
Intercept	0.82***	0.83***
Child/Family		
Exposure to Head Start (1 year)	0.02	-0.09
Gender (boy)	0.05	0.03
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.25***	-0.14*
Hispanic/Latino	-0.15*	-0.07
Other, Non-Hispanic	-0.06	-0.03
Primary language spoken to child (non-English)	-0.25***	-0.26***
Low/Middle/High ability at Head Start entry		
Low ability	-1.08***	-1.00***
Middle ability	-0.56***	-0.53***
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.06	0.07
101-130% of poverty	0.12	0.12
Above 130% of poverty	0.13	0.14*
Joint book reading 3+ times per week at Head Start entry	0.06	0.04
# of books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.04	0.02
At least voc/tech diploma	0.08	0.05
Parent depressive symptoms at Head Start entry	-0.00	-0.00
Head Start class/program		
Peer abilities at Head Start entry		0.24***
Variation of peer abilities at Head Start entry		0.22**
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.03
“Good” ECERS-R Provisions for Learning		-0.08
“Middle” CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.04
Head Start full-day program		-0.09*
Slope	-0.01	-0.01*
Child/Family		
Exposure to Head Start (1 year)	-0.03***	-0.03***
Gender (boy)	0.00	0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.01**	-0.01
Hispanic/Latino	-0.01*	-0.01
Other, Non-Hispanic	0.00	0.01
Primary language spoken to child (non-English)	0.00	-0.00
Low/Middle/High ability at Head Start entry		
Low ability	0.02***	0.03***
Middle ability	0.01***	0.01***
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.01**	0.01**
101-130% of poverty	0.01	0.01
Above 130% of poverty	0.01**	0.01***

	Model 1	Model 2
Joint book reading 3+ times per week at Head Start entry	0.00	0.00
Books in home at Head Start entry	0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.00
At least voc/tech diploma	0.01*	0.01*
Parent depressive symptoms at Head Start entry	-0.00	0.00
Head Start class/"program"		
Peer abilities at Head Start entry		0.00
Variation of peer abilities at Head Start entry		0.01*
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.00
"Good" ECERS-R Provisions for Learning		0.00
"Middle" CLASS Instructional Support		0.01
Head Start teacher has at least BA		0.00
Head Start full-day program		-0.00

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 684 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; PPVT-4 = Peabody Picture Vocabulary Test, Fourth Edition.

*p<.05; **p<.01; ***p<.001.

Table E.8 Association of Entering Skills, Child/Family and Head Start Characteristics with WJ III Letter-Word (LW) Scores

	Model 1	Model 2
Intercept	0.65***	0.69***
Child/Family		
Exposure to Head Start (1 year)	-0.00	-0.07
Gender (boy)	-0.08	-0.09
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	0.19*	0.19*
Hispanic/Latino	0.15	0.15
Other, Non-Hispanic	0.29*	0.30*
Primary language spoken to child (non-English)	0.00	-0.02
Low/Middle/High ability at Head Start entry		
Low ability	-1.34***	-1.22***
Middle ability	-0.91***	-0.87***
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	0.13	0.09
101-130% of poverty	0.07	0.05
Above 130% of poverty	-0.02	-0.04
Joint book reading 3+ times per week at Head Start entry	0.07	0.05
# of books in home at Head Start entry	-0.00	-0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.12	0.10
At least voc/tech diploma	0.13	0.12
Parent depressive symptoms at Head Start entry	-0.00	-0.00
Head Start class/program		
Peer abilities at Head Start entry		0.15
Variation of peer abilities at Head Start entry		0.10
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.11
“Good” ECERS-R Provisions for Learning		-0.36*
“Middle” CLASS Instructional Support		0.11
Head Start teacher has at least BA		0.01
Head Start full-day program		-0.03
Slope	-0.01	-0.01
Child/Family		
Exposure to Head Start (1 year)	-0.03***	-0.03***
Gender (boy)	-0.00	0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.00	-0.00
Hispanic/Latino	0.01	0.01
Other, Non-Hispanic	0.00	0.00
Primary language spoken to child (non-English)	-0.00	-0.01
Low/Middle/High ability at Head Start entry		
Low ability	0.03***	0.04***
Middle ability	0.02***	0.02***
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	-0.00	-0.00
101-130% of poverty	0.01	0.01
Above 130% of poverty	-0.00	-0.01

	Model 1	Model 2
Joint book reading 3+ times per week at Head Start entry	0.00	0.01
Books in home at Head Start entry	-0.00	-0.00*
Maternal education		
Less than high school (referent)		
High school/GED	0.00	0.00
At least voc/tech diploma	0.01*	0.01**
Parent depressive symptoms at Head Start entry	-0.00	-0.00
Head Start class/"program"		
Peer abilities at Head Start entry		0.00
Variation of peer abilities at Head Start entry		-0.01
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.00
"Good" ECERS-R Provisions for Learning		-0.00
"Middle" CLASS Instructional Support		0.02
Head Start teacher has at least BA		-0.00
Head Start full-day program		-0.01

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 478 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<.05; **p<.01; ***p<.001.

Table E.9 Association of Entering Skills, Child/Family and Head Start Characteristics with WJ III Applied Problems (AP) Scores

	Model 1	Model 2
Intercept	0.63***	0.52***
Child/Family		
Exposure to Head Start (1 year)	0.16*	0.12
Gender (boy)	-0.12	-0.13*
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.01	0.04
Hispanic/Latino	0.02	0.07
Other, Non-Hispanic	0.01	0.06
Primary language spoken to child (non-English)	-0.17	-0.21*
Low/Middle/High ability at Head Start entry		
Low ability	-1.13***	-1.07***
Middle ability	-0.58***	-0.54***
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	-0.07	-0.05
101-130% of poverty	-0.05	-0.02
Above 130% of poverty	-0.07	-0.06
Joint book reading 3+ times per week at Head Start entry	0.07	0.06
# of books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.13	0.10
At least voc/tech diploma	0.19*	0.18*
Parent depressive symptoms at Head Start entry	0.00	0.00
Head Start class/program		
Peer abilities at Head Start entry		0.14*
Variation of peer abilities at Head Start entry		0.05
Head Start experience		
“Good” ECERS-R Teaching and Interactions		0.24**
“Good” ECERS-R Provisions for Learning		-0.34*
“Middle” CLASS Instructional Support		-0.06
Head Start teacher has at least BA		0.12
Head Start full-day program		0.04
Slope	-0.01	-0.01
Child/Family		
Exposure to Head Start (1 year)	-0.03***	-0.02***
Gender (boy)	0.00	0.00
Race/Ethnicity		
White, Non-Hispanic (referent)		
African American, Non-Hispanic	-0.00	-0.00
Hispanic/Latino	-0.00	-0.00
Other, Non-Hispanic	-0.02	-0.01
Primary language spoken to child (non-English)	0.01	-0.00
Low/Middle/High ability at Head Start entry		
Low ability	0.05***	0.04***
Middle ability	0.02***	0.01*
High ability (referent)		
Poverty ratio at Head Start entry		
Less than 50% of poverty (referent)		
50-100% of poverty	-0.00	-0.00
101-130% of poverty	0.00	0.00
Above 130% of poverty	0.00	-0.00

	Model 1	Model 2
Joint book reading 3+ times per week at Head Start entry	0.01	0.01
Books in home at Head Start entry	0.00	0.00
Maternal education		
Less than high school (referent)		
High school/GED	0.01	0.01
At least voc/tech diploma	0.02**	0.02**
Parent depressive symptoms at Head Start entry	0.00	0.00
Head Start class/"program"		
Peer abilities at Head Start entry		-0.01***
Variation of peer abilities at Head Start entry		-0.01
Head Start experience		
"Good" ECERS-R Teaching and Interactions		0.01
"Good" ECERS-R Provisions for Learning		-0.01
"Middle" CLASS Instructional Support		0.00
Head Start teacher has at least BA		0.00
Head Start full-day program		-0.00

Source: Fall 2006 and Spring 2007, 2008, and 2009 FACES Direct Child Assessment; Fall 2006 FACES Parent Interview; Fall 2006, Spring 2007, and Spring 2008 FACES Head Start Teacher Interview; Spring 2007 FACES Classroom Observation.

Note: Statistics are weighted to represent all children who entered Head Start for the first time in fall 2006, who completed one or two years of Head Start, and were enrolled in kindergarten in spring 2008 or spring 2009.

The estimates represent effect sizes for the standardized mean difference in the dependent variable between two groups for a binary independent variable, or the standardized association between a continuous independent variable and the dependent variable (that is, one standard deviation change in the independent variable is related to some percentage of a standard deviation change in the dependent variable).

Analyses include 426 children. Table shows standardized regression coefficients.

CLASS = Classroom Assessment Scoring System; ECERS-R = Early Childhood Environment Rating Scale-Revised; WJ III = Woodcock-Johnson III Tests of Achievement.

*p<.05; **p<.01; ***p<.001.

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