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## FACES 2009 Study Design

### OPRE Report 2011-9

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## OPRE Report 2011-9

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## INTRODUCTION

The Head Start Family and Child Experiences Survey (FACES) was first launched in 1997 as a periodic, longitudinal study of program performance. Successive nationally representative samples of Head Start children, their families, classrooms, and programs provide descriptive information on the population served; staff qualifications, credentials, and opinions; Head Start classroom practices and quality measures; and child and family outcomes. FACES includes a battery of child assessments across multiple developmental domains; interviews with children's parents, teachers, and program managers; and observations of classroom quality. In 2008, the Administration for Children and Families (ACF) funded Mathematica Policy Research and its partners—Educational Testing Service and Juárez and Associates—to design and conduct FACES 2009.

This summary highlights basic features of the FACES 2009 study design for those interested in learning more about the study or who have an interest in using the data for future analyses. It describes the sample and sampling design as well as study components, including the composition of the child assessment; classroom observation; and the parent, teacher, and Head Start staff interviews. It then identifies new features of the FACES 2009 that differ from previous cohorts. Finally, it offers an overview of the dissemination plans for the FACES data and study findings.

### FACES 2009 Study Design

FACES is a tool for measuring Head Start program performance at the national level. The FACES study collects data on successive nationally representative samples of Head Start programs and classrooms and of the children and families served by Head Start. FACES also seeks to examine the developmental progress of children and their families during and following Head Start participation. Interviews, observations, and assessments carried out on a recurring basis provide the means for assessing how the program is performing, currently and over time, in response to changing demographics and policy mandates.

FACES 2009 is the fifth in a series of national cohort studies—previous cohorts were initiated in 1997, 2000, 2003, and 2006. The FACES 2009 child sample was selected to represent 3- and 4-year-olds as they entered their first year of the program. Children attending a second year of Head Start in fall 2009 are not eligible to participate in FACES. The study

consists of four waves of data collection—fall and spring of children's first Head Start year, spring of the second Head Start year for children who were 3 years old as of the local school kindergarten cut-off date for 2009, and spring of the children's kindergarten year<sup>1</sup> (see *Table 1*). Sixty Head Start programs, 129 centers, and about 3,300 children and their families are participating in FACES 2009.

**TABLE 1. SUMMARY OF DATA COLLECTION FOR 3- AND 4-YEAR-OLD COHORTS, BY WAVE**

Cohort	Fall	Spring	Spring	Spring
3-Year-Old Cohort	✓	✓	✓	✓
4-Year-Old Cohort	✓	✓	✓	

### Rationale for the Study

Successive samples of Head Start children, their families, and programs provide a rich source of ongoing information on the children and families served by Head Start and on the programs and staff who provide these services. Based on a comprehensive “whole-child” view of school readiness, FACES uses multiple methods to collect data on child characteristics and skills from several sources. FACES 2009 provides updated information to document status and change in a number of key areas:

- Demographic characteristics of children and families enrolled in Head Start.
- Child and family outcomes as conceptualized under the Head Start Program Performance Measures and the Child Outcomes Framework.
- Self-reported goals, strengths, and needs of participating families.
- Head Start parents' perceptions of the strengths and problems of their larger community.
- Activities and experiences of families while their child is enrolled in Head Start.
- Head Start programs' approaches to family involvement and support and barriers to such involvement.
- Head Start staff responsibilities, training, and credentials.
- Families' and program staff's perceptions of factors that serve as barriers and facilitators to the provision of needed services.

- Quality of observed classroom practice.
- Use of curricula and assessment and provision of program support through training, mentoring, and supervision.

### **Conceptual Model and Framework**

The conceptual framework for FACES 2009 illustrates the complex interrelationships that help shape the developmental trajectories of children in Head Start (Figure 1). The child's place is primary and constitutes the central core of the relationships depicted in the figure; fostering his or her progress toward school readiness, broadly construed, is Head Start's ultimate goal. The family context—health, economic, and educational resources as well as cultural factors—forms the first ring of influences surrounding the child. Membership in the Head Start community is reflected in the child's classroom and teachers and the wider Head Start program, all of which influence the quality of the early childhood learning experience. Factors affecting the child's development and well-being also include teacher credentials, classroom quality, and program management. Finally, community, state, and national policy decisions, depicted in the outer ring, also affect the life of a Head Start child. These multidimensional contexts guide all aspects of the FACES study, from the selection of measures to the

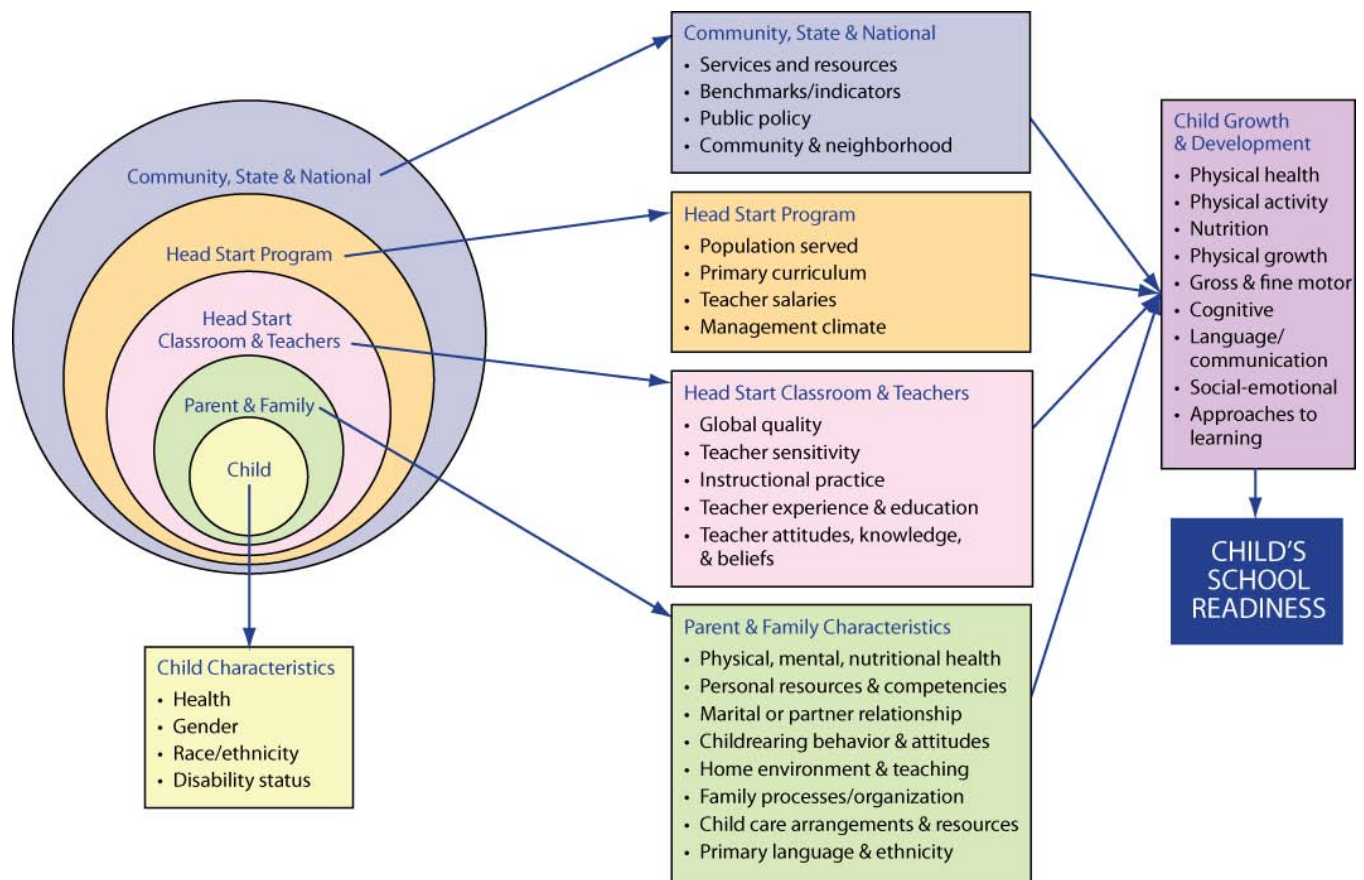
multilevel analyses needed to fully address program and policy issues in today's Head Start program.

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

Measurement of these child and family outcomes both during the program years and through followup at the end of kindergarten allows fuller understanding of how well Head Start prepares children and their parents for participation in school.



**FIGURE 1. CONCEPTUAL MODEL FOR FACES 2009**



## Potential Research Questions

The FACES study is designed to enable researchers to answer a wide range of questions that are crucial for aiding program managers and policymakers. The data from FACES 2009 may be used to (1) describe key characteristics of newly entering children and families served by Head Start, including demographic characteristics and children's developmental progress; (2) describe Head Start programs, teachers, and classrooms serving children and families; and (3) explore associations among classroom, teacher, and program characteristics and a variety of child and family outcomes.

### 1. Children and Families Served by Head Start

- What are the demographic characteristics of the population of children and families served by Head Start? What proportion of children has identified disabilities, and what types of needs are presented? How has the population served by Head Start changed over successive FACES cohorts?
- What are the cognitive and social skills of Head Start children at the beginning and end of their first year in the program? Has Head Start program performance improved over time?
- Do children in the program show larger gains in cognitive and social skills over the course of the program year than they did in the 1997, 2000, 2003, and 2006 cohorts? Do they show greater declines in problem behavior, such as hyperactivity and aggression?
- Do the gains in cognitive and social skills that Head Start children achieve carry over into kindergarten? Do larger gains (or greater declines in problem behavior) translate into higher achievement at the end of kindergarten?
- What are the characteristics of children who demonstrate gains that are greater than average? Smaller than average?

## **2. Head Start Programs, Classrooms, and Services**

- What is the observed quality of Head Start classrooms as early learning environments, including the level and range of teaching and interactions, provisions for learning emotional and instructional support, and classroom organization? How has quality changed over time?
- How much variation exists in the quality of different Head Start programs, centers, and classrooms? What factors account for this variation?
- What specific curricular approaches are being used in Head Start classrooms?
- What are the characteristics and qualifications of Head Start teachers, and how do these characteristics compare with those of earlier FACES cohorts? For example, are average teacher education levels rising in Head Start?
- What are Head Start programs doing in terms of professional development activities for education staff? What is the relationship between such program management (for example, support for teacher training and the use of a specific early childhood curriculum) and classroom quality?
- What are the experiences of families and children in the Head Start program? How have they changed? How do they vary according to the programs' philosophies, strategies, and approaches to family involvement and support?
- How are programs handling the challenges associated with assisting large numbers of children and families whose primary language is not English?

## **3. Relating Program Services to Child and Family Outcomes**

- What is the relationship between classroom quality and children's outcomes and developmental gains?
- Are any classroom, teacher, or program characteristics associated with children's making greater or lesser gains in cognitive or social skills?
- Do programs that employ certain types of curricula show greater gains than others?

- Do programs that employ high proportions of teachers with bachelor's degrees or associate's degrees show greater gains in child cognitive and positive behavioral development than programs with lower teacher education levels?
- What are the relationships among program management, classroom quality, and parent outcomes? Do variations in the quality of Head Start programs correlate with variations in the amount of change exhibited by parents in their parenting behaviors, engagement in healthy practices at home, provision of home learning experiences, and attitudes toward or fulfillment of personal goals for education and employment?

## **Use of FACES Data**

For nearly a decade, the Office of Head Start, ACF, other federal agencies, local programs, and the public have depended on FACES for valid and reliable national information on (1) the skills and abilities of Head Start children, (2) how Head Start children's skills and abilities compare with preschool children nationally, (3) Head Start children's readiness for and subsequent performance in kindergarten, and (4) the characteristics of the children's home and classroom environments. FACES data have also been useful in responding to additional program requirements. For example, the data and experiences from FACES assisted the 1999 Advisory Committee on Head Start Research and Evaluation as it deliberated the design of the congressionally mandated National Head Start Impact Study (NHSIS). More recently, a pilot and feasibility study of the Classroom Assessment Scoring System (CLASS) conducted in FACES 2006 helped to inform decisions about implementation of the CLASS for program monitoring purposes, including the procedures required to train, certify, and maintain field reliability for classroom observers using the CLASS. FACES data are being used to answer questions about the population of dual language learners attending Head Start and are a major data source for a congressionally mandated report on these children. In addition, data from FACES have been widely disseminated within the Head Start community to assist with efforts toward continuous program improvement and to guide training and technical assistance efforts.



## OVERVIEW OF THE 2009 STUDY DESIGN

### Sample and Sampling Design

The sample design for FACES 2009 is similar to that of earlier rounds of FACES and includes a multistage sample selection of (1) programs, (2) centers, (3) classrooms, and (4) children. Sampling at the first three stages is done with probability proportional to size; that is, programs with a larger expected enrollment of children new to Head Start have a higher chance of getting into the sample than smaller programs, although all eligible programs have a chance of getting into the sample. The same principle applies for larger centers and classrooms with a larger number of newly entering children.

The sampling frame of eligible Head Start programs for FACES 2009 is constructed from the Head Start Program Information Report (PIR). However, Migrant and Seasonal Head Start (MSHS) programs, American Indian-Alaska Native Head Start (AIAN) 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) are excluded from the frame.<sup>2</sup> From this frame, a sample of 60 programs is selected. In addition, approximately two centers per program and three classrooms per center are selected for participation. Within each classroom, a sample of newly enrolled children is selected. The FACES 2009 sample includes 60 programs, about 129 centers, 486 classrooms, and 3,349 children. Table 2 includes these actual sample sizes and the expected number of program, centers, classrooms, and children based on the study's sampling design. The children will be followed through the spring of their kindergarten year if they remain in Head Start during the year prior to kindergarten.

TABLE 2. SAMPLE SIZES

	Expected	Actual
Number of eligible and participating programs	60	60
Number of centers selected and participating (up to two per program)	130	129
Number of classrooms selected and participating (up to three per center)	410	486
Number of children with parental consent	3,435	3,349
Number of assessed children in fall 2009	3,298	3,149
Number of children with a parent interview in fall 2009	3,298	3,119

For FACES 2009, about 94 percent of eligible children's parents gave their consent for their child to participate. In fall 2009, we completed assessments with 94 percent of the eligible and consented children and interviewed 93 percent of their parents. Head Start teachers completed ratings for 97 percent of the children.<sup>3</sup> All but a few teachers, program directors, center directors, and education coordinators completed interviews.

### Study Components

As noted, to describe the characteristics, experiences, and outcomes for children and families served by Head Start, FACES includes a battery of child assessments across multiple developmental domains; interviews with children's parents, teachers, and program managers; and observations of classroom quality (see Table 3). The Appendix contains the permission references for any copyrighted instruments used in the child assessment, ratings, or interviews.

**TABLE 3. SUMMARY OF FACES 2009 CHILD ASSESSMENT AND CLASSROOM OBSERVATION BATTERY**

Measure	Instrument
<b>Language and Literacy Outcomes</b>	
Simon Says (PreLAS 2000)	Child Direct Assessment
Art Show (PreLAS 2000)	Child Direct Assessment
Peabody Picture Vocabulary Test–4 (PPVT–4) / Test de Vocabulario en Imagenes Peabody (TVIP)	Child Direct Assessment
Expressive One-Word Picture Vocabulary: English and Spanish-Bilingual Editions (EOWPVT; EOWPVT-SBE)	Child Direct Assessment
Spelling (Woodcock-Johnson III Tests of Achievement / Bateria III Woodcock-Muñoz Pruebas de Aprovechamiento)	Child Direct Assessment
Letter-Word Identification (Woodcock-Johnson III Tests of Achievement / Bateria III Woodcock-Muñoz Pruebas de Aprovechamiento)	Child Direct Assessment
Letter-Sounds Items from Early Childhood Longitudinal Study–Birth Cohort (ECLS–B), preschool wave	Child Direct Assessment
Word Attack (Woodcock-Johnson III Tests of Achievement / Bateria III Woodcock-Muñoz Pruebas de Aprovechamiento) <sup>a</sup>	Child Direct Assessment
Child's accomplishments: color naming, writing, recognize name/letters, pretends to read	Teacher Child Report, Parent Interview
Academic Skills Ratings	Teacher Child Report
<b>Mathematics Outcomes</b>	
Applied Problems (Woodcock-Johnson III Tests of Achievement / Bateria III Woodcock-Muñoz Pruebas de Aprovechamiento)	Child Direct Assessment
Mathematics Assessment Items from the Early Childhood Longitudinal Study–Birth Cohort (ECLS–B), preschool wave and Early Childhood Longitudinal Study–Kindergarten Class of 1998–99 (ECLS–K), kindergarten wave	Child Direct Assessment
Counting circles	Child Direct Assessment
Child's accomplishments: counting	Teacher Child Report, Parent Interview
Academic Skills Ratings: mathematics, science, and social studies <sup>b</sup>	Teacher Child Report
<b>Physical Health and Development</b>	
Child's height and weight	Child Direct Assessment
Child's accomplishments: speech, motor development	Teacher Child Report, Parent Interview
Child's health and disability	Teacher Child Report, Parent Interview
Special concerns: difficulty hearing, seeing test materials, speech difficult to understand	Assessor Observation
<b>Social-Emotional Outcomes and Approaches to Learning</b>	
32 items from Behavior Problems Index, Personal Maturity Scale, Social Skills Rating System, and ECLS–K Approaches to Learning	Teacher Child Report
21 items from Behavior Problems Index, Personal Maturity Scale, and Social Skills Rating System	Parent Interview
Leiter International Performance Scale Revised, Examiner Ratings: (1) Attention, (2) Organization/Impulse Control, (3) Activity Level, (4) Sociability	Assessor Observation
<b>Executive Functioning</b>	
Pencil Tapping <sup>c</sup>	Child Direct Assessment
<b>Classroom Environments</b>	
Child-Adult counts	Classroom Observation
Early Childhood Environment Rating Scale Revised (ECERS–R), Shortened Version	Classroom Observation
Classroom Assessment Scoring System (CLASS)	Classroom Observation

<sup>a</sup> Word Attack is administered in the kindergarten year only.<sup>b</sup> Teachers rate children's skills in science and social studies in the kindergarten year only.<sup>c</sup> The pencil tapping task is only administered to children age four years and older.

**Direct child assessment and parent and teacher ratings.** To examine the developmental changes and school readiness skills of children who participate in Head Start, FACES 2009 administers the following, both during and after the period of program participation:

- **A child assessment battery** consisting of tasks drawn from available standardized preschool assessments measuring children's cognitive and physical outcomes as well as their executive functioning. All direct measures of children's developmental outcomes are obtained through an untimed, one-on-one assessment of the child at each data collection wave.
  - Children begin with two language tasks from the PreLAS 2000 that serve as a language screener. For children whose home language (based on information provided on parent consent forms) is not English, the language screener determines if they will receive the tasks in English, Spanish, or only receive vocabulary and height and weight measures.
  - Cognitive outcomes include receptive and expressive vocabulary, letter knowledge, and phonemic awareness for language and literacy. For mathematics, measures include counting, number and shape recognition, and addition and subtraction problem solving. The English assessment uses the Woodcock-Johnson III subtests, and the Spanish assessment uses the Batería III Woodcock-Muñoz subtests. Spanish translations are used for other tasks (except for phonemic awareness which is available only in English).
  - All children, regardless of home language or performance on the PreLAS, receive the English vocabulary measures (PPVT-4 and EOWPVT or EOWPVT-SBE) and have their height and weight measured. Children whose home language is Spanish, regardless of performance on the PreLAS, receive the receptive vocabulary component in Spanish (TVIP) as well as in English.
  - The battery also differs by the age of the child; 3-year-olds do not receive the pencil tapping task measuring executive functioning.
- **Parent, teacher, and assessor ratings** of children's academic and social-emotional development and health. Parent and teacher ratings assess children's social skills and problem behaviors. Children's approaches toward learning

are measured through teacher ratings. Interviewers who assess the children also complete ratings on children's behavior during the assessment including observation of attention, organization, activity level, and sociability.

**Parent interview.** Information collected from parent interviews cover a variety of areas, including the characteristics of households and household members, levels and types of participation in Head Start and in other community services, parent-child relationships and aspects of the child's home life, and parents' ratings of their child's social behavior and development. For FACES 2009, computer-assisted interviews are conducted with parents at each data collection wave.

**Head Start staff interviews.** To examine classroom characteristics that relate to the quality of educational services for children, FACES 2009 conducts interviews with lead teachers to collect information about their educational background, professional experience, and instructional practices. This occurs in fall 2009 and spring 2010 and 2011. To measure program characteristics that relate to service quality, the study conducts telephone interviews with program directors and face-to-face interviews with center directors and education coordinators in fall 2009. Program directors confirm information from the most recent version of the PIR and provide information about the training and technical assistance provider in their region, the curriculum or curricula used in their program, program services and partnerships for all families as well as for special groups (for example, children with disabilities, children who are dual language learners, children who are homeless), and their program's methods of child assessment. They also describe their educational background and experience, as well as their satisfaction with their current position. We ask questions concerning details of educational philosophy, curriculum, assessment and classroom activities of the center director, education coordinator, and classroom teachers. Center directors also provide additional information about organizational and administrative features of their program, including challenges they face, parent involvement in program activities, and staff recruitment and retention.

**Head Start classroom observations.** In spring 2010 and 2011, the study conducts classroom observations of the quality of equipment, materials, and teacher-child interactions using standardized observational methods and coding schemes that have been widely used in child development research. Each classroom is observed once for four hours.

**Kindergarten teacher questionnaires.** Children's kindergarten teachers complete Web-based surveys in the spring of 2010 and 2011, after children have completed Head Start and have entered kindergarten.<sup>4</sup> The questionnaire asks about a teacher's demographic characteristics, education level, degrees and teaching certificates, courses in child development, and years of teaching experience. We also ask teachers about the frequency of language, literacy, and early mathematics activities in

the classroom and the overall behavior of children in the class.

### Data Collection Schedule and Periodicity

As noted, FACES 2009 collects data at four time points over a 33-month period beginning in fall 2009 and ending in spring 2012. Table 4 shows the timing of the data collection components by wave.

TABLE 4. SUMMARY OF DATA COLLECTION COMPONENTS, BY WAVE				
	Fall 2009	Spring 2010	Spring 2011	Spring 2012
3-Year-Old Cohort	Child in Head Start		Child in Head Start	Child in Kindergarten
Assessment	✓	✓	✓	✓
Parent Interview	✓	✓	✓	✓
Teacher Child Report	✓	✓	✓	✓
Teacher Interview	✓	✓	✓	✓
Classroom Observation		✓	✓	
Program Director Interview	✓			
Center Director Interview	✓			
Education Coordinator Interview	✓			
4-Year-Old Cohort	Child in Head Start		Child in Kindergarten	
Assessment	✓	✓	✓	
Parent Interview	✓	✓	✓	
Teacher Child Report	✓	✓	✓	
Teacher Interview	✓	✓	✓	
Classroom Observation		✓		
Program Director Interview	✓			
Center Director Interview	✓			
Education Coordinator Interview	✓			

### WHAT'S NEW IN FACES 2009

The design of FACES 2009, including the sampling plan, instruments, procedures, and data analysis plans, draws heavily from the design of FACES 2006; most of the design remains the same, with a few changes in approach or instruments.<sup>5</sup> These changes, particularly those related to measures of key constructs, reflect a balance between the need to support comparisons to previous FACES cohorts and the need to update the measurement battery and address emerging policy issues. Changes were made to particular measures used and to the sampling procedures. In terms of changes to measures, modifications primarily involve an enhanced focus on

children who are dual language learners (DLLs) and those who are homeless, changes in measures used to assess child outcomes and classroom quality, and additional information on parental involvement and program services.

### Enhanced Focus on Particular Groups

In response to recent trends and mandates, FACES 2009 expands the information collected on families and children who speak a primary language other than English and the information collected on children who are homeless. Previous cohorts of FACES gathered information on the languages spoken in the home and used for classroom instruction. Given the

growth in the population of Hispanic/Latino preschoolers (Hernandez 2006), FACES 2009 places added emphasis on DLLs. In fact, 3 out of 10 children enrolled in Head Start in fall 2006 were DLLs (Tarullo et al. 2008). Additionally, the Head Start program performance standards require that programs support children's progress in learning their home language as well as diverse cultures in the classroom, and the 2007 Head Start Act specifically outlined the conduct of a research study on the status of limited English proficient children and their families that participate in Head Start. To understand more fully the unique contexts within which DLLs develop, FACES 2009 expanded the information collected from parents (for example, attitudes and preference toward learning English), teachers (for example, number of DLL children and languages used for reading and speaking to groups), and programs (for example, how the needs of DLL children and families are being met by staff recruitment and provision of any special services). Additionally, given the focus in the 2007 Head Start Act on children and families who are homeless, FACES 2009 expands coverage on the enrollment of these children, how the program ensures they enroll in the program, and the special services available to these children and their families. While FACES continues to capture information on household moves and stability, the current study also includes questions about family separations, potentially related to housing situations.

### **Changes to Child Outcomes Measures**

For FACES 2009, we carefully balanced the need for consistent measurement of outcomes against the need for improvements in instrumentation and techniques. In some instances, new instruments have been added to obtain more comprehensive information on Head Start children. For example, we added the Expressive One-Word Picture Vocabulary Test to assess children's expressive language, which is related to later reading achievement even more so than receptive language (National Early Literacy Panel 2008). In addition, we added a measure of phonemic awareness from the Early Childhood Longitudinal Study–Birth Cohort (ECLS–B) preschool wave to assess children's knowledge of beginning and ending sounds in words. Further, FACES 2009 now includes a direct assessment of executive functioning—a pencil tapping task to examine children's inhibitory control, working memory, and attention—which has been shown to relate to young children's development in mathematics, vocabulary, and literacy (Blair and Razza 2007; Espy et al. 2004; McClelland et al. 2007).

In other instances, we dropped measures that, in previous cohorts, did not demonstrate a relationship with outcomes, exhibited poor psychometric properties, proved too time-consuming, or lacked current policy interest. For instance, we eliminated the Story and Print Concepts task because reliability in previous FACES cohorts was low, with many children scoring at the floor (ACF 2006) or not achieving a valid score. To reduce teacher burden, we also dropped the Preschool Learning Behavior Scale (PLBS) from the Teacher Child Report and, for purposes of national comparison, replaced it with the six-item approaches toward learning scale used in the Early Childhood Longitudinal Study–Kindergarten Class of 1998–99 (ECLS–K), which has shown relationships with academic achievement in elementary school (Duncan et al. 2007).

### **Changes to Classroom Quality Measures**

FACES 2009 continues to measure classroom quality, though with some changes to ensure greater precision and reliability. The Early Childhood Environment Rating Scale–Revised (ECERS–R) is an important classroom quality indicator and one of the most commonly cited measures used by FACES. Based on results for a comprehensive pilot study, FACES 2009 uses an abbreviated set of ECERS–R items in combination with the Classroom Assessment Scoring System (CLASS). This set of ECERS–R comprise two factors—teaching and interactions (that is, the quality of teacher-child interactions) and provisions for learning (that is, materials available in the classroom and the arrangement of the classroom space)—identified by researchers (Clifford et al. 2005) and represent the major dimensions of quality most proximal to learning tapped by the full ECERS–R. FACES 2009 uses the full CLASS for the first time, including the one domain (Instructional Support) used in FACES 2006,<sup>6</sup> and including the other two domains: Classroom Organization and Emotional Support. In turn, we dropped the Arnett Caregiver Interaction Scale from the FACES 2009 observation protocol to reduce burden and potential redundancy with the CLASS Emotional Support domain, as well as because it had limited association with teacher education or children's cognitive skills in prior FACES cohorts.

### **Additional Information Gathered on Parental Involvement and Program Services**

Head Start has always considered parental involvement a central tenet, and research shows that their involvement is related to improved outcomes for



children during both early childhood and the elementary school years (Downer and Mendez 2005; Glick and Hohmann-Marriott 2007; Marcon 1999; McWayne et al. 2004). FACES 2009 added items to the parent interview that ask parents about their involvement with the Head Start program and their child's classroom, barriers to that involvement, and their satisfaction with different aspects of the program. Further, the Head Start staff interviews' coverage on this topic has been enhanced with an increased focus on how well programs make connections with parents and any barriers to those connections from the program perspective.

Additionally, items have been added to the program director interview for program directors to indicate services available for children with disabilities and describe the referral processes and partnerships that are in place to provide those services. FACES 2009 also expands the information collected on Head Start programs' formal partnerships with other center- or home-based child care programs for providing extended care and whether programs have tried to align their curriculum or goals with local prekindergarten programs.

### **Updates to Sampling Procedures**

FACES 2009 improves the sampling procedures used in the baseline wave of FACES 2006. Most notably, FACES 2009 introduces the use of a Field Enrollment Specialist (FES). FESs visited each program about three weeks before data collection to conduct on-site classroom and child sampling and to gather consents. On visits to each program's two sampled centers, the FES requested lists of all classrooms with newly enrolled Head Start children ages 3 through 5 years and the number of such children in each classroom. The FES then provided this information to a Mathematica statistician who immediately selected classrooms for inclusion in the study. The FES, still at the center, requested a class roster for each selected classroom and entered each child's name and age (or date of birth) into a specially designed program on a laptop computer for child sampling. In another change from FACES 2006, FACES 2009 allowed only one child from a household to participate in the study. Thus, if any selected children in a center were identified as siblings (defined as living in the same household and being cared for by the same primary

caregiver), the FES laptop program includes a step that sampled only one of the selected siblings. This immediate and on-site sampling technique allowed FACES project staff to focus parental consent efforts on selected children in an efficient and timely manner, with a FACES field staff member available to represent the study and answer questions.

## **DISSEMINATION OF FACES 2009 DATA AND FINDINGS**

Annual reports regarding FACES 2009 will update researchers and ACF on the progress of the study. Specifically, the annual reports will relay the plans for and the most current findings from the study and highlight notable analyses, findings, and recommendations. For example, this Year 1 Report discusses how the study design supports Head Start program performance measurement and how it will address other policy and program questions. The Year 2 Report will describe characteristics of children, families, and programs in the fall of 2009 when they first enter Head Start and draw comparisons with earlier FACES cohorts and programs. The Year 3 Report will document children's progress during their first year of Head Start, compare subgroups of children by family background characteristics and by program characteristics, and compare progress with that of previous cohorts of FACES. Additional reports in the following years will similarly document children's progress and growth as they continue through Head Start and kindergarten.

Research briefs will also be prepared to inform the early childhood practitioner and policy research communities about the FACES study and changes in Head Start children, families, staff, programs, and communities. Mathematica staff will present findings from the study and offer training sessions about FACES data sets at professional conferences including the Head Start Research Conference and the meeting of the Society for Research in Child Development. Finally, data files and users' manuals will be prepared and made available for interested researchers through the University of Michigan's Inter-university Consortium for Political and Social Research (ICPSR). The public-use data file, containing fall 2009 through spring 2012 data, will be made available in 2013.



## REFERENCES

- Administration for Children and Families. "Head Start Performance Measures Center: Family and Child Experiences Survey (FACES 2000)—Technical Report." Washington, DC: U.S. Department of Health and Human Services, 2006.
- Blair, C. "School Readiness: Integrating Cognition and Emotion in a Neurobiological Conceptualization of Children's Functioning at School Entry." *American Psychologist*, vol. 57, 2002, pp. 111–127.
- Blair, C., and R.P. Razza. "Relating Effortful Control, Executive Function, and False Belief Understanding to Emerging Math and Literacy Ability in Kindergarten." *Child Development*, vol. 78, no. 2, March/April 2007, pp. 647–663.
- Brownell, R. (ed.). *Expressive One-Word Picture Vocabulary Test: Spanish-Bilingual Edition*. Novato, CA: Academic Therapy Publications, 2001.
- Brownell, R. (ed.). *Expressive One-Word Picture Vocabulary Test Manual—Third Edition*. Novato, CA: Academic Therapy Publications, 2000.
- Clifford, R., O. Barbarin, F. Chang, D.M. Early, D. Bryant, C. Howes, M. Burchinal, and R. Pianta. "What Is Pre-Kindergarten? Characteristics of Public Pre-Kindergarten Programs." *Applied Developmental Science*, vol. 9, no. 3, 2005, pp. 126–143.
- Diamond, A., and C. Taylor. "Development of an Aspect of Executive Control: Development of the Abilities to Remember What I Said and to "Do as I Say, Not as I Do." *Developmental Psychobiology*, vol. 29, 1996, pp. 315–334.
- Downer, J.T., and J.L. Mendez. "African American Father Involvement and Preschool Children's School Readiness." *Early Education & Development*, vol. 16, no. 3, 2005, pp. 317–340.
- Duncan, G.J., C.J. Dowsett, A. Claessens, K. Magnuson, A.C. Huston, P. Klebanov, L.S. Pagani, L. Feinstein, M. Engel, J. Brooks-Gunn, H. Sexton, K. Duckworth, and C. Japel. "School Readiness and Later Achievement." *Developmental Psychology*, vol. 43, no. 6, 2007, pp. 1428–1446.
- Duncan, S.E., and E. DeAvila. *Preschool Language Assessment Survey 2000 Examiner's Manual: English Forms C and D*. Monterey, CA: CTB/McGraw-Hill, 1998.
- Dunn, L.M., L.L. Dunn, and D.M. Dunn. *Peabody Picture Vocabulary Test, Fourth Edition Examiner's Manual and Norms Booklet*. Circle Pines, MN: American Guidance Service, 2009.
- Dunn, L.M., E.R. Padilla, D.E. Lugo, and L.M. Dunn. *Test de Vocabulario en Imagenes Peabody*. Circle Pines, MN: American Guidance Service, 1986.
- Entwisle, D.R., K.L. Alexander, and L. Steffel Olson. *Children, Schools, and Inequality*. Boulder, CO: Westview Press, 1997.
- Espy, K.A., M.M. McDiarmid, M.F. Cwik, M. Meade Stalets, A. Hamby, and T.E. Senn. "The Contribution of Executive Functions to Emergent Mathematics Skills in Preschool Children." *Developmental Neuropsychology*, vol. 26, no. 1, 2004, pp. 465–486.
- Glick, J.E., and B. Hohmann-Marrott. "Academic Performance of Young Children in Immigrant Families: The Significance of Race, Ethnicity, and National Origins." *International Migration Review*, vol. 41, no. 2, 2007, pp. 361–402.
- Gresham, F.M., and S.N. Elliot. *Social Skills Rating System*. Circle Pines, MN: American Guidance Service, 1990.
- Harms, T., R.M. Clifford, and D. Cryer. *Early Childhood Environment Rating Scale, Revised Edition*. New York: Teachers College Press, 1998.
- Hernandez, D. "Young Hispanic Children in the U.S.: A Demographic Portrait Based on Census 2000: A Report to the National Task Force on Early Childhood Education for Hispanics." Tempe, AZ: Arizona State University, June 26, 2006.
- Marcon, R. "Positive Relationships Between Parent School Involvement and Public School Inner-City Preschoolers' Development and Academic Performance." *School Psychology Review*, vol. 28, no. 3, 1999, pp. 395–412.

- McClelland, M., C. Cameron, C. Connor, C. Farris, A. Jewkes, and F. Morrison. "Links Between Behavioral Regulation and Preschoolers' Literacy, Vocabulary, and Math Skills." *Developmental Psychology*, vol. 43, no. 4, 2007, pp. 947–959.
- McWayne, C., V. Hampton, J. Fantuzzo, H. Cohen, and Y. Sekino. "A Multivariate Examination of Parent Involvement and the Social and Academic Competencies of Urban Kindergarten Children." *Psychology in the Schools*, vol. 41, no. 3, February 2004, pp. 363–377.
- National Early Literacy Panel. "Developing Early Literacy: Report of the National Early Literacy Panel: A Scientific Synthesis of Early Literacy Development and Implications for Intervention." Washington, DC: National Institute for Literacy, 2008.
- Peterson, J., and N. Zill. "Marital Disruption, Parent-Child Relationships, and Behavior Problems in Children." *Journal of Marriage and the Family*, vol. 48, 1986, pp. 295–307.
- Pianta, R., K. LaParo, and B. Hamre. *The Classroom Assessment Scoring System Pre-K Manual*, Charlottesville, VA: University of Virginia, 2008.
- Roid, G.H., and L.J. Miller. *Leiter International Performance Scale Revised, Examiner Rating Scale (Leiter-R)*. Lutz, FL: Psychological Assessment Resources, Inc., 1997.
- Smith-Donald, R., C.C. Raver, T. Hayes, and B. Richardson. "Preliminary Construct and Concurrent Validity of the Preschool Self-Regulation Assessment (PSRA) for Field-Based Research." *Early Childhood Research Quarterly*, vol. 22, 2007, pp. 173–187.
- Snow, K., L. Thalji, A. Derecho, S. Wheelless, J. Lennon, S. Kinsey, J. Rogers, M. Raspa, and J. Park. "Early Childhood Longitudinal Study, Birth Cohort (ECLS-B), Preschool Year Data File User's Manual (2005–06)." NCES 2008–024. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2007.
- Tarullo, L., J. West, N. Aikens, and L. Hulsey. "Beginning Head Start: Children, Families and Programs in Fall 2006." Washington, DC: U.S. Department of Health and Human Services, 2008.
- U.S. Department of Education, National Center for Education Statistics. "Early Childhood Longitudinal Study-Kindergarten Class of 1998–99 (ECLS-K), Psychometric Report for Kindergarten Through First Grade." (NCES 2002–05). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2002.
- Woodcock, R.W., A.F. Muñoz-Sandoval, K. McGrew, N. Mather, and F. Schrank. *Bateria III Woodcock-Muñoz*. Itasca, IL: Riverside Publishing, 2004.
- Woodcock, R.W., K. McGrew, and N. Mather. *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing, 2001.

## END NOTES

<sup>1</sup> To be eligible for the kindergarten wave of data collection a child must be attending kindergarten and have been enrolled in Head Start at the time of the spring Head Start data collection the year before kindergarten.

<sup>2</sup> The Office of Head Start provided information about defunded (or soon to be defunded) programs before sampling began. These programs were excluded from the sampling frame.

<sup>3</sup> Response rates are unweighted with the denominators of the rates based on the number of cases that were attempted as per the study protocol. For example, we attempted child assessments with 3,349 eligible and consented children and completed assessments for 3,149 of these children.

<sup>4</sup> Teachers are given the option of completing the kindergarten questionnaire online or using a hard copy. Seventy-two percent of teachers in FACES 2006 chose to complete the questionnaire using the Web.

<sup>5</sup> For information on how FACES 2006 differed from earlier FACES cohorts see the FACES 2006 Study Design report at [http://www.acf.hhs.gov/programs/opre/hs/faces/reports/faces\\_studydesign/faces\\_studydesign.pdf](http://www.acf.hhs.gov/programs/opre/hs/faces/reports/faces_studydesign/faces_studydesign.pdf).

<sup>6</sup> In FACES 2006, the Instructional Support domain was included along with the full ECERS–R to capture information on the quality of instruction in the classroom. While piloted in FACES 2003, the CLASS has not been regularly used in conjunction with the ECERS–R. Given its training demands for observers to attain reliability, only the one domain focusing on instruction was included to feasibly integrate into the existing FACES observation protocol.

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