

Head Start FACES 2000: A Whole-Child Perspective on Program Performance

In 1997, Head Start launched the Family and Child Experiences Survey (FACES), a study of a national random sample of Head Start programs designed to answer critical questions about child outcomes and program quality. In 2000, FACES began data collection on a new national cohort—FACES 2000—and plans are underway for a third cohort. Now, longitudinal data on successive, scientifically representative samples of children, families, teachers, classrooms, and programs are available.

In both studies, children entered Head Start at a great disadvantage to other children, as evidenced by the children's initial scores on standardized assessments of cognitive skills. Findings from both cohorts of FACES show that the gap between Head Start children and the general population of preschool-age children narrows during the Head Start year on key components of school readiness. This is true to a greater extent in the 2000-2001 program year. However, despite the gains they make, Head Start children enter Kindergarten still substantially below national averages on such assessments.

Children made significant gains during the Head Start year relative to national norms, most notably in the areas of vocabulary knowledge and early writing skills. In the areas of letter recognition and knowledge of book and print conventions, children in 2000-2001 made significantly greater gains than Head Start children in 1997-1998. Gains in vocabulary and early writing were similar to those in 1997-1998. In both cohorts, children who entered Head Start with lower skill levels made greater gains than those who entered with higher skill levels. This finding may be related in part to the tendency of scores to move closer to the population mean over successive assessments.

In the domain of social and emotional development, children also showed growth in social skills and reduction in hyperactive behavior during the Head Start year. Children with high levels of shy, aggressive, or hyperactive behaviors (scoring in the top quarter) showed significant reduction of these behaviors.

FACES 2000 also found that Head Start classrooms continue to be of good quality across a wide variety of indicators. In 2000-2001 there was an increased percentage of new teachers with advanced degrees entering Head Start, compared to 1997-1998. Head Start teachers in FACES 2000 were more likely to be younger, new to teaching Head Start and entering with higher educational levels including graduate degrees. They were also more likely to be trained in Early Childhood Education and to be members of a professional organization. Results also show that Head Start teachers with higher levels of educational attainment, and with more years of teaching experience overall, were more likely to have knowledge and positive attitudes about early childhood education practices, which subsequently influenced classroom

quality. Thus, teacher attitudes and knowledge mediates the relationship between teacher education and classroom quality.

The vast majority of programs use a specific curriculum, as mandated by the Head Start Program Performance Standards. Several program factors are related to child outcomes, including higher teacher salaries and use of an integrated curriculum. Teachers' educational credentials are linked to greater gains in early writing skills. In addition, provision of preschool services for a longer period each day is linked to greater cognitive gains.

FACES 2000 presents information on family and parent characteristics important to any investigation of school readiness. For example, when parents read more frequently to their children, their children had higher scores on early literacy assessments. In addition, when families engaged their children in weekly and monthly educational activities, there was a positive correlation with positive child behaviors and emergent literacy. Head Start families face numerous risks and challenges that are related to children's well-being. When Head Start parents were more depressed, their children had lower scores on a variety of cognitive measures. Positive correlations were also found between increased exposure to neighborhood violence and reports of child problem behavior. Parent involvement in Head Start was positively correlated with a number of positive cognitive and social outcomes. Importantly, Head Start involvement by parents moderated the negative effects of violence, depression, and other risk factors on children's cognitive and social-emotional status.

The Study

FACES describes the characteristics, experiences, and outcomes for children and families served by Head Start. It also explores the relationships among family and program characteristics and outcomes. In 1997, the FACES design included a nationally representative sample of 3,200 children and their families in 40 programs. The FACES 2000 sample includes 2,800 children and their families in 43 different Head Start programs across the nation. The current report focuses on the FACES 2000 sample, as well as Kindergarten follow-up data from the FACES 1997 sample.

Each cohort of FACES employs a nationally stratified sample of Head Start programs, centers, classrooms, children, and parents. FACES 2000 features four phases of data collection and follows 3- and 4-year-old children from program entry, through one or two years of program experience, with follow-up in the spring of Kindergarten. The FACES 2000 battery has four main components: the direct child assessment, parent interview, teacher and staff interviews, and classroom observations. Although there is no non-Head Start comparison group in FACES, the use of assessment measures with national norms permits comparisons between the skills of children in the sample and children of the same ages in the norming samples. Child outcomes can be compared with national averages on a range of standardized assessments with a mean of 100, and standard deviation of 15.

Study Findings

FACES provides information about the knowledge and skills that children have when they enter the Head Start program and the gains they make during the Head Start year and the first year of elementary school. It also describes the quality of Head Start classrooms, and factors that help explain variations in quality across Head Start classrooms. In addition, FACES 2000 data provide insight into the relationship of program and classroom characteristics to children's outcomes, as well as the relationship of family and parental characteristics to children's outcomes.

Head Start Children's Cognitive and Social-Emotional Development

- Most children entered Head Start at a great disadvantage, with early literacy and math skills substantially below national averages. The typical Head Start child was found to enter at about the 16th percentile in vocabulary and early writing skills, at about the 31st percentile in letter recognition and at about the 21st percentile in early math, when compared to the full spectrum of American children in the same age range.
- There was considerable diversity in skill levels among Head Start children, however. The highest quarter of Head Start children were at or above the national average (50th percentile) in early language and number skills, while the lowest quarter of children ranked on average in the lowest 2 percent of all U.S. preschoolers in these areas.
- As in 1997-1998, the gap between Head Start children and other preschool-age children narrowed during the Head Start year, especially with respect to vocabulary knowledge and early writing skills. Despite these gains, Head Start children still trail in these measures compared to national averages.
- Head Start children showed greater progress in letter recognition skills than they had in 1997-1998, but they still did not reach national averages in this area. Although the children made progress in early math skills, they did not make gains toward national averages in this domain.
- In 2000, Head Start children entered the program knowing about 4 letters of the alphabet, and left the program knowing about 9 letters on average, close to the congressional mandate of being able to name at least 10 letters.
- Children who entered the program with lower levels of knowledge and skill showed larger gains during the program year, yet still lagged considerably behind national averages. Children who started with higher assessment scores in the fall wound up with higher scores in the spring, but showed less dramatic gains. The finding of greater gains for children who entered with lower scores may be related

in part to the tendency of scores to move closer to the population mean over successive assessments.

- Spanish-speaking children in Head Start showed significant gains in English vocabulary skills without declines in their Spanish vocabulary skills. They did not gain in letter recognition skills.
- Based on follow-up of the 1997-1998 cohort, Head Start graduates showed further progress toward national averages during kindergarten. Gains of between a third to more than half a standard deviation were observed in vocabulary, early math, and early writing skills during kindergarten. Most Head Start graduates could identify most or all of the letters of the alphabet by the end of kindergarten and more than half could recognize beginning sounds of words. Nevertheless, Head Start graduates remained behind their more advantaged peers in early achievement.
- The size of gains that children made while in Head Start were predictive of their achievement levels by the end of kindergarten.
- Children showed growth in social skills and reduction in hyperactive behavior during the Head Start year. According to teacher report, the average score of Head Start children on a cooperative classroom behavior rating scale increased significantly from fall to spring. In addition, the average score of Head Start children on a hyperactive behavior rating scale decreased significantly during the program year.
- Children with high levels (scoring in the top quarter) of shy, aggressive, or hyperactive behavior showed significant reductions in these problem behaviors in Head Start.
- Behavior in Head Start is predictive of adjustment and performance in early elementary school. Cooperative classroom behavior ratings and problem behavior ratings by Head Start teachers of children at the end of Head Start were predictive of behavioral adjustment ratings by kindergarten teachers in the spring of the kindergarten year. In addition, children who received higher cooperative behavior ratings and lower problem behavior ratings from Head Start teachers scored better on cognitive assessments at the end of Kindergarten, even when their test scores in Head Start were taken into account.

Head Start Programs' Use of Curricula

- The great majority of Head Start programs use a curriculum, as mandated by the Head Start Program Performance Standards. A wide variety of curricula are used, with a majority of programs selecting an integrated curriculum such as Creative Curriculum or High/Scope.

- There is a relationship between program characteristics (region, urban-rural, characteristics of children and families) and the type of curriculum used.
- There is a relationship between curricula and classroom quality, which may reflect the influences of other factors (such as the resources available to programs for purchasing and training in specific curricula), or may demonstrate the effect of certain curricula on quality.

Quality in Head Start Classrooms

- Head Start quality has been observed to be consistently good over time, using a variety of indicators including child-adult ratio, teacher-child interactions, and classroom activities and materials. Few classrooms scored below minimal quality. In fact, FACES shows that Head Start has a better, more limited range of quality than that seen in child care centers and preschools in several other national studies.
- More Head Start teachers in 2000-2001 had obtained a graduate school degree compared to 1997-1998. However, Head Start teachers have lower teaching qualifications on average than pre-kindergarten teachers in public elementary schools.
- Head Start teachers in 2000 are also younger, compared with those in 1997-1998, and more of them have been teaching in Head Start for two years or less. These newer teachers are also the ones most likely to have a graduate school degree.
- More teachers in 2000, studied Early Childhood Education or Child Development for their highest degree, and more teachers belong to a national professional association for early childhood educators, compared with those in 1997-1998.
- Teacher backgrounds, qualifications, and experience are related to their attitudes and knowledge of early childhood development practices. Teachers with higher scores for positive attitudes and knowledge about early childhood education practices were more likely to have higher levels of educational attainment, have some graduate school education or higher, have more total years teaching, and belong to an early childhood education association.
- Classrooms with higher levels of quality have teachers with higher levels of education, experience, and positive attitudes and knowledge about early childhood education practice.
- Teacher education and attitudes are linked to classroom quality. The relationship between teacher education and classroom quality is explained by teacher's attitudes and knowledge of early childhood education practice. Teachers who are more educated have more positive attitudes and knowledge, which translates into higher levels of classroom quality.

- Variations in the quality of Head Start classrooms may be explained by characteristics of the families and children they serve, by the curriculum used in the program, and by teacher attitudes and knowledge about early childhood education practice. Head Start programs that provide for a common integrative curriculum across classrooms and that pay their teachers better have sufficient resources available to positively influence classroom quality, through the quality of teachers hired, their experience and attitudes and knowledge.

Relationship of Program and Classroom Characteristics to Children's Outcomes

- Higher teacher salaries are linked to greater gains in several cognitive and social-emotional areas, including letter identification, oral communication of basic social information, and cooperative classroom behavior. Children in programs with higher teacher salaries also showed greater improvement in hyperactive problem behavior during the Head Start year.
- Use of an integrated curriculum is linked to greater gains in several cognitive and social-emotional areas. Specifically, children in Head Start programs using High/Scope showed larger fall-spring gains in letter identification and cooperative classroom behaviors than children in programs using other curricula. Children in programs using High/Scope also showed greater improvement in total behavior problems and hyperactive problem behavior.
- Teachers' educational credentials are linked to greater gains in early writing skills. Children taught by Head Start teachers with Bachelors' Degrees or Associates' Degrees showed gains toward national averages in an assessment of early writing skills, whereas children taught by teachers with lesser credentials merely held their own against national norms.
- Provision of preschool services for a longer period each day is linked to greater cognitive gains. Children in full-day classes in Head Start showed larger fall-spring gains in letter recognition and early writing skills than did children in part-day classes.
- There is indirect evidence that encouraging parents to engage in more educational activities with their children at home is linked to greater cognitive gains. Children whose parents report reading to them every day show larger fall-spring gains in vocabulary knowledge and letter recognition skills than children whose parents report reading once or twice or less frequently per week.
- Within the generally good quality range of Head Start classrooms, variation in quality as measured by the ECERS-R Language scale or the Caregiver Interaction Scale is not associated with differences in fall-spring achievement gains across classes.

- Within the narrow range of group size in Head Start, variation in child/adult ratios is not associated with or is negatively associated with differences in fall-spring achievement gains across classes.

Relationship of Family and Parental Characteristics to Children's Outcomes

- Almost 90 percent of Head Start families manifested at least one of a set of six selected socioeconomic risk factors. About one fifth of the families had four or more risk factors. Children in these families had lower parent ratings on emergent literacy and higher teacher and parent ratings of problem behavior. In the assessments, these children scored lower on design copying, color naming, one-to-one counting, book knowledge, vocabulary, early math, early writing, letter identification, social awareness, comprehension, and print concepts.
- Twenty-five percent of the parents were classified as moderately or severely depressed. Parents who were more depressed reported that their children had more problem behaviors and fewer positive social behaviors. Their children also had lower scores on one-to-one counting, creativity, and early math assessments, after controlling for parent education, income, and other demographic factors.
- More than one fifth of the parents had witnessed violent crime. Five percent were victims of violent crime in the neighborhood, while a similar percentage were victims of violence in their homes. Parents reported that almost 10 percent of the children witnessed domestic violence during the previous year. Parents reported that less than 2 percent of the children had been victims of violent crime or victims of domestic violence. Positive correlations were found between increased exposure to violence and reports of child problem behavior and maternal depression, after controlling for parent education, income, and other demographic factors.
- Almost one fifth of the parents reported that someone in their household had been arrested and charged with a crime. Children in these families were more than three times more likely to have been a witness to either a violent crime or domestic violence in the past year. These children were also more than three times more likely to have been a victim of domestic violence or violent crime. These children had lower vocabulary scores, and were reported by both parents and teachers to be more aggressive and have more overall problem behaviors.
- Families engaged their children in a number of weekly and monthly educational activities. The number of activities was positively correlated with positive child behaviors and emergent literacy and negatively correlated with problem behaviors, after controlling for the number of times a child was read to in the past week, parent education, income, and other demographic factors. In particular, the weekly activities had positive correlations with scores on color naming and vocabulary. Monthly activities were positively correlated with the social

awareness, color naming, one-to-one counting, book knowledge, and print concepts assessments.

- More than two thirds of parents had attended parent-teacher conferences, observed in their children’s classrooms for at least 30 minutes, or met with a Head Start staff member in their homes. Parental involvement in Head Start was positively correlated with parental reports of positive social behavior and higher emergent literacy skills and negatively correlated with aggressive and overall problem behavior, after controlling for parent education, employment, and other demographic factors. Children with more involved parents scored higher on vocabulary, book knowledge, early writing, early math, and letter identification tasks.
- Preliminary findings suggest that Head Start may play a role in protecting children from the negative outcomes associated with family risk factors, including maternal depression, exposure to violence, alcohol use, and involvement in the criminal justice system. Parent involvement in Head Start, parent reports that they and their children had positive experiences at Head Start, and parent satisfaction with the program significantly moderated negative relationships between risk factors and child behavioral and cognitive outcomes, controlling for parent education, income, and employment; child age, gender, and race; and the overall family activity level with the child.

Predictive Validity of the FACES Cognitive and Behavioral Measures

- Children’s scores on FACES assessments at the end of Head Start, as well as the gains they make during the Head Start year, strongly predict their performance at the end of Kindergarten. As an indicator of pre-literacy skills, the cognitive measures show strong associations with reading ability at the end of the kindergarten year. As an indicator of school adjustment and social competence, the behavior ratings demonstrate ability to predict kindergarten behaviors that promote learning and those that impede learning.
- The vocabulary and early literacy instruments used in FACES tap different types of abilities (“inside-out” or decoding skills as well as “outside-in” or comprehension skills) that are important for children’s future reading proficiency and academic achievement.
- Scores from the FACES instruments and the FACES behavior ratings both contribute to the prediction of teachers’ practical decision of whether a child repeats kindergarten or is promoted to first grade.
- The multi-measure and multi-method approach to the measurement of children’s abilities provides a variety of information sources that significantly contribute to the prediction of Kindergarten outcomes.