Research BRIEF

Julia Alamillo, Nikki Aikens, Emily Moiduddin, Charlie Bush, Lizabeth Malone, and Louisa Tarullo

Head Start Programs in Spring 2015: Structure, Staff, and Supports for Quality from FACES 2014

INTRODUCTION

Using data from the Head Start Family and Child Experiences Survey 2014 (FACES 2014), this research brief focuses on the characteristics of Head Start programs, leaders, and teachers that prior research shows are related to classroom quality. The brief highlights descriptive information from the Spring 2015 Data Tables and Study Design report, which focuses on Head Start classrooms and programs (Moiduddin et al. 2017). We address the following research questions:

1. What are the key structural characteristics of Head Start programs and centers?
2. What are the qualifications, experience, and support needs of Head Start program and center directors?
3. What are the qualifications, teaching experience, depressive symptoms, and attitudes of Head Start teachers?[1]
4. What curriculum training, assessment training, and mentoring do Head Start teachers receive?
5. What are the key characteristics and quality of Head Start classrooms?
6. How do teacher, director, and classroom characteristics vary across different program auspices and sizes?

To address question one, we explore the structural characteristics of Head Start programs and centers, including agency type, total enrollment, length of program year, sources of revenue other than Head Start, and size of teaching staff and turnover in centers. We also examine programs' metropolitan status and whether they have a management information system (MIS), a web-based child assessment tool, and someone on staff who summarizes or analyzes data.

For questions two and three, we examine directors' education and experience and the areas they say they need more support in order to lead more effectively. We also explore Head Start teachers' education, credentials, and experience, symptoms of depression, attitudes toward developmentally appropriate practice, and job satisfaction.

Question four explores curriculum and assessment training and mentoring received by teachers.

To address question five, we examine the use of curriculum and assessment and the alignment of the two, time spent in instructional groups, child/adult ratio and group size, and observed classroom quality. This information gives us more insight into the content of instruction and the quality of teaching practices in Head Start.

OPRE

We address the sixth and final research question by examining differences in staff and classroom characteristics by program auspice—community action agencies (CAAs), school-based programs,[2] and all other agency types[3]—and program size—small (enrollment of fewer than 300 children), medium (enrollment of at least 300 but fewer than 600 children), large (enrollment of at least 600 but fewer than 1,200 children), or very large (enrollment of at least 1,200 children).[4,5]

Head Start programs can operate in different auspices. These auspices are likely to have standards or regulations programs must adhere to, and they therefore shape both program services and the professional environment. Both quality of services and the professional environment are linked—either directly or indirectly—with gains in child development (Connors 2016; Connors and Friedman-Krauss 2017). Therefore, we examine whether we detect differences in service quality or the professional environment by auspice in FACES. Additionally, we examine differences by program size to explore whether large or small programs may have an advantage for supporting services or professional environment. The components of service quality and professional environment examined relative to program auspice and size are: the size of teaching staff; teacher turnover; directors' experience; areas that directors say they need more support in order to lead more effectively; teachers' education, credentials, and experience; mentoring received by teachers; and observed classroom quality.

WHAT ARE THE KEY STRUCTURAL CHARACTERISTICS OF HEAD START PROGRAMS AND CENTERS?

We examine the broader program context and characteristics because they reflect the infrastructure and processes needed to support high quality services in the classroom (Connors 2016). In addition to describing agency characteristics, we examine the range of funding streams programs draw on, teacher turnover, and the availability of data systems and support staff to run those systems. Funding streams are important because they directly determine what services can be provided to children and families and the quality improvement efforts that programs can undertake (Barnett and Hustedt 2011; National Academies of Sciences, Engineering, and Medicine 2018). Teacher turnover influences not only observed classroom quality but also the experiences of children, parents, other teachers, and directors in the setting (Cassidy et al. 2011; IOM and NRC 2015; Whitebook and Sakai 2003). Data systems for monitoring progress—and staff capacity to run those systems—are a key ingredient in successful quality improvement efforts (Tout et al. 2015).

Agency characteristics

Nearly 80 percent of Head Start programs are operated by either CAAs or nonprofit organizations. CAAs operate the largest number of Head Start programs (41 percent), with almost as many funded by private or public nonprofits (38 percent; Figure 1). School systems operate 15 percent of Head Start programs. The remaining 6 percent of programs are operated by either government agencies (5 percent) or private or public for-profit organizations (1 percent).
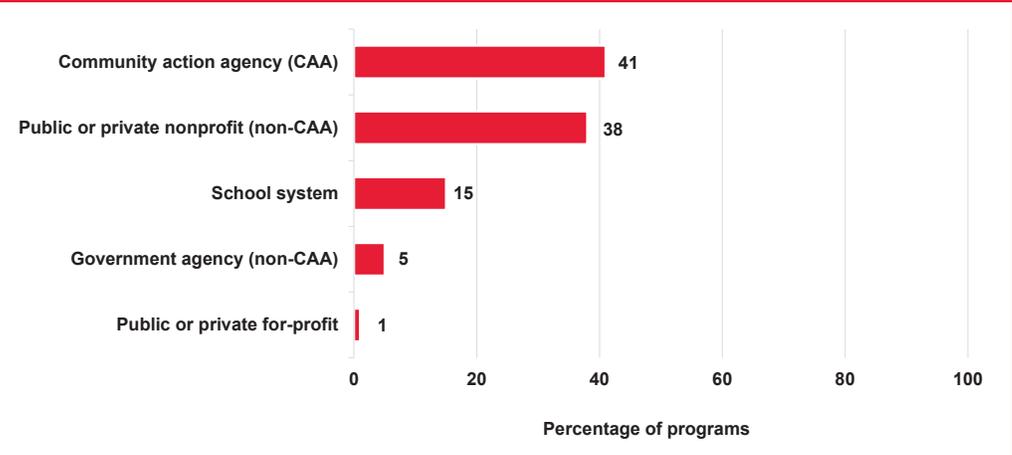
Almost two-thirds of Head Start programs (62 percent) are in metropolitan areas, that is, located in or near cities of 50,000 people or more. The remaining 38 percent are in non-metropolitan areas.[6]

On average, Head Start programs have 507 children enrolled, ranging from 100 to over 6,000 children across programs. Almost half of Head Start programs (46 percent) are small and enroll fewer than 300 children (Figure 2). Twenty-eight percent of programs are medium and enroll between 300 and 600 children, 18 percent are large and enroll between 600 and 1,200 children, and 9 percent are very large and enroll more than 1,200 children.[7]

About one-third of Head Start programs operate for a full year. Thirty-eight percent of Head Start programs operate for 11 months or more during the year. The remaining 62 percent of programs operate for only part of the year. Part-year programs range in length from nearly 8 months to just under 11 months.

Figure 1:

Head Start programs are most commonly operated by community action agencies or public/private nonprofits
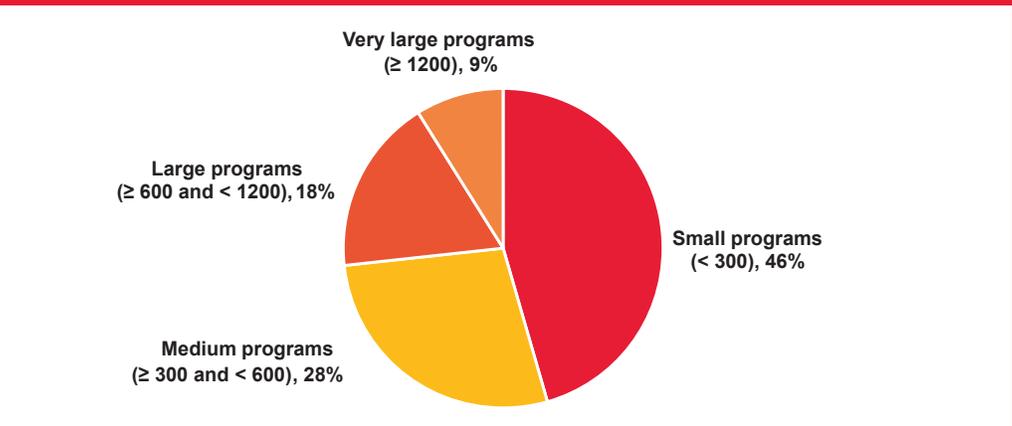
Category	Percentage
Community action agency (CAA)	41
Public or private nonprofit (non-CAA)	38
School system	15
Government agency (non-CAA)	5
Public or private for-profit	1

Percentage of programs

Source: 2013–2014 Program Information Report (PIR), an annual report of grantee-level data.

Note: Data are reported only for programs in the FACES sample. Statistics are weighted to represent all Head Start programs.

Figure 2:

Almost half of Head Start programs serve fewer than 300 children

Very large programs (≥ 1200), 9%

Large programs (≥ 600 and < 1200), 18%

Small programs (< 300), 46%

Medium programs (≥ 300 and < 600), 28%

Source: 2013–2014 Program Information Report (PIR), an annual report of grantee-level data.

Note: Data are reported only for programs in the FACES sample. Statistics are weighted to represent all Head Start programs.

Percentages may not sum to 100 due to rounding.

Sources of revenue other than Head Start

The majority of programs (89 percent) receive revenue from at least one source other than Head Start. Sixty-eight percent of programs receive additional federal funding, 56 percent receive funding from state governments, and 41 percent receive funding from local governments. In addition, 37 percent of the programs receive non-Head Start revenue through community organizations or grants; 35 percent receive funds from fundraising activities, gifts, or cash contributions; and 22 percent receive revenue through tuition and fees paid by parents for supplemental child care.[8]

Size of teaching staff and turnover in centers

Head Start centers employ, on average, 4 teachers, ranging from 0 to 35.[9] **On average, Head Start centers replaced 17 percent of their teachers in the last year. Teacher turnover rates differ significantly by program size, but not by program auspice.**[10] Average teacher turnover across centers ranges from 0 percent to 200 percent (indicating some centers have to replace teachers more than once over 12 months). The range in turnover may reflect the varying size of centers, with some centers having only one classroom and others having potentially dozens of classrooms. We see that average teacher turnover across centers is lower in very large programs than in large programs (11 percent versus 20 percent).

Data systems and support staff

Nearly all Head Start programs use an electronic database and/or a web-based child assessment tool. Almost all (99 percent) of Head Start programs store their data in an electronic database. In addition, 92 percent of programs have a child assessment tool that includes a web-based option for storing information. Of these programs, 99 percent report using the web-based option available with the assessment tool.

More than three-quarters of Head Start programs employ someone to analyze or summarize data. Seventy-eight percent of Head Start programs have someone on staff who analyzes and/or summarizes data to support program decision making. Of these programs, 62 percent have at least one staff member who has been trained or taken a course in data analysis, and 11 percent have a staff member whose sole job is data analysis.

WHAT ARE THE QUALIFICATIONS, EXPERIENCE, AND SUPPORT NEEDS OF HEAD START PROGRAM AND CENTER DIRECTORS?[11]

The leadership structure within Head Start programs includes program directors and center directors, Policy Councils, and governing bodies/Tribal Councils. Each of their roles can vary across Head Start programs. In FACES, we focus our inquiry on program and center directors because, while specific roles vary, directors are consistently central to the provision of high quality services (Tout et al. 2015). Directors' education, experience, and training all affect the way they manage programs and support and motivate teaching staff (Bloom et al. 2013), which all have implications for the quality of services provided to children and families (IOM and NRC 2015).

Directors' education and experience

Most Head Start program and center directors have at least a bachelor's degree. Among program directors, 47 percent have a bachelor's and 51 percent have a graduate or professional degree as their highest degree (Figure 3). Only 2 percent of program directors have an associate's degree, and 1 percent have a high school education or attended some college courses without earning a degree. Among center directors, 49 percent have a bachelor's and 32 percent have a graduate or professional degree as their highest degree. Seventeen percent of center directors have an associate's degree, and 2 percent have a high school education or attended some college courses without earning a degree.

For program directors, educational attainment varies significantly by program size, but not by program auspice. Directors of small programs are the least likely to have an advanced degree (Figure 4). They are less likely to have a graduate or professional degree (35 percent) than directors of medium, large, or very large programs (62, 70, and 62 percent, respectively). Conversely, they are more likely to have a bachelor's as their highest degree (61 percent) than directors of large or very large programs (30 and 31 percent, respectively).

For center directors, educational attainment varies significantly by both program auspice and program size. Center directors in school-based programs are more likely to have earned a graduate or professional degree (71 percent) compared to directors of CAAs or other agency types (22 and 31

percent, respectively). Center directors of small programs are less likely to have earned a graduate or professional degree (17 percent) than directors of medium, large, or very large programs (40, 36, and 37 percent, respectively).

Figure 3:

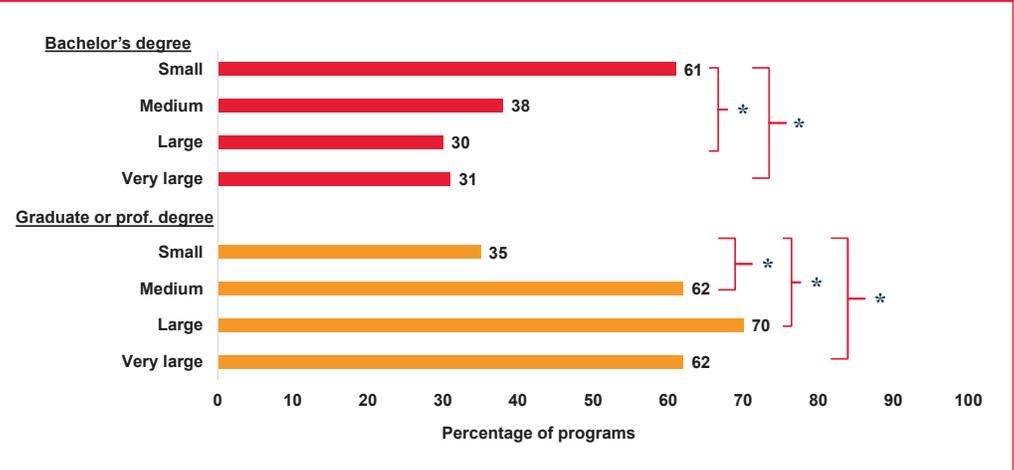**Nearly all program and center directors have a bachelor's degree or higher**
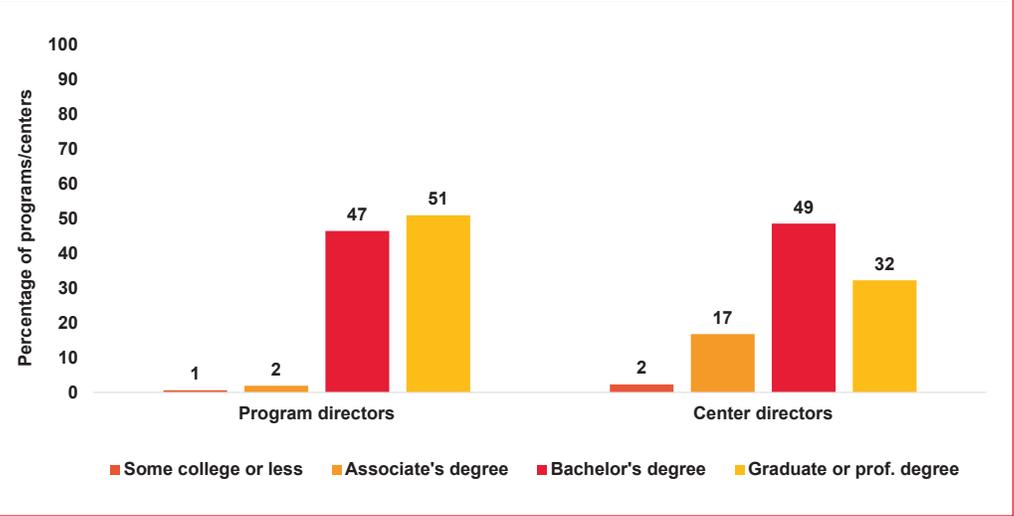
Source: Spring 2015 FACES Program Director and Center Director Surveys.

Note: Statistics are weighted to represent all Head Start programs (for program directors) and all Head Start centers (for center directors).

Percentages may not sum to 100 due to rounding.

Prof. = professional.

Figure 4:

Program directors' educational attainment varies by program size

Source: Spring 2015 FACES Program Director Survey.

Note: Statistics are weighted to represent all Head Start programs.

Prof. = professional.

*Asterisk indicates that the differences between groups are statistically significant at the $p \leq .05$ level.

Program directors' experience as a Head Start director ranges from less than one year to 47 years, with an average 8 years of experience. Experience does not vary by program auspice or size. Program directors' experience directing their current program ranges from less than one year to 47 years, with an average of 7 years of experience.

Center directors' experience as a Head Start director ranges from less than one year to 37 years, with an average 7 years of experience. Experience varies significantly by both program auspice and size. Center directors' experience directing their current program ranges from less than one year to 31 years, with an average of 5 years of experience. CAA center directors average more years of experience as a Head Start director than school-based center directors (7.8 versus 4.2 years). Center directors in small programs average more years of experience in their current program than those in large programs (5.5 versus 3.3 years).

Areas where directors say they need more support to lead more effectively

Head Start directors report needing more support with data-driven decision making and program improvement planning. Seventy-six percent of program directors and 46 percent of center directors identified data-driven decision making as one of the top three areas where they need more support to lead effectively. The second most identified area was program improvement planning: 45 percent of program directors and 37 percent of center directors indicated needing more support in this area. Additionally, at least one-quarter of program directors identified needing support with budgeting (34 percent), staffing (34 percent), and working with parents in the community (26 percent). Likewise, at least one-quarter of center directors identified needing support with working with parents in the community (35 percent), educational/curriculum leadership (32 percent), and staffing (27 percent).

WHAT ARE THE QUALIFICATIONS, TEACHING EXPERIENCE, DEPRESSIVE SYMPTOMS, AND ATTITUDES OF HEAD START TEACHERS?

In FACES, we examine teacher characteristics because teachers are integral to the quality of services delivered to children and families. Specifically, teacher education and experience (Moiduddin et al. 2012; Resnick and Zill 2003) and job satisfaction (Aikens et al. 2010) are positively associated with classroom quality. The extent to which teachers subscribe to and implement developmentally appropriate practices for preschool aged children in the classroom is also associated with higher classroom quality (Aikens et al. 2010; Resnick and Zill 2003). On the other hand, teacher depressive symptoms are negatively associated with classroom quality (Aikens et al. 2010; Gerber et al. 2007; McLean and Connor 2015) and, in turn, child outcomes (McLean and Connor 2015).

Teacher education, credentials, and experience

The majority of Head Start teachers have a bachelor's degree or higher. Teachers' level of education varies significantly by program auspice, but not by size. Over half of Head Start teachers have a bachelor's degree (55 percent), and another 20 percent have a graduate or professional degree (Figure 5). Twenty-three percent of teachers have an associate's degree. The remaining 2 percent of teachers have not earned a college degree. Similar percentages of teachers have associate's and bachelor's degrees across different types of programs. However, teachers working in school-based programs are more likely to hold a graduate or professional degree compared to CAA teachers (33 versus 16 percent).

Over half of Head Start teachers have a teaching certificate or license. The percentage of teachers with a teaching certificate or license varies by program auspice. Fifty-four percent of Head Start teachers report having a teaching certificate or license. Head Start teachers in school-based programs are more likely to have a teaching certificate or license (76 percent) than teachers in CAAs or teachers in other agency types (54 and 48 percent, respectively).

Figure 5:
The majority of teachers have at least a bachelor's degree
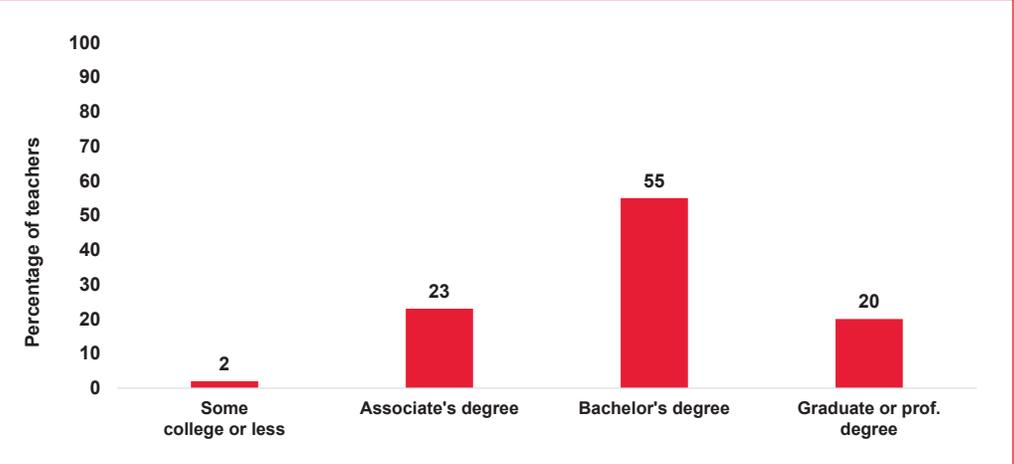
Source: Spring 2015 FACES Teacher Survey.

Note: Statistics are weighted to represent all Head Start teachers.

Prof. = professional.

Two-thirds of Head Start teachers have at least five years of experience teaching Head Start or Early Head Start. Teachers' experience does not vary significantly by program auspice or size. Forty-three percent of teachers have 10 or more years of experience working in Head Start or Early Head Start programs. Twenty-four percent of teachers have 5 to 9 years of experience, 14 percent have two to four years, and 20 percent of teachers have two or less years.

Teachers' depressive symptoms and attitudes toward developmentally appropriate practice

One-third of Head Start teachers report symptoms of depression.[12] Two-thirds (65 percent) of teachers report no depressive symptoms. Twenty-two percent of Head Start teachers report symptoms of mild depression, 10 percent report symptoms of moderate depression, and 3 percent report symptoms of severe depression.

Head Start teachers endorse developmentally appropriate practices and report high levels of job satisfaction, on average. Head Start teachers score an average of 7.4 on a 10-point scale of attitudes toward developmentally appropriate practice. In addition, most Head Start teachers say they enjoy their job (93 percent), feel as though they are making a difference in the lives of children (98 percent), and would choose teaching again as a career (85 percent).

WHAT CURRICULUM TRAINING, ASSESSMENT TRAINING, AND MENTORING DO HEAD START TEACHERS RECEIVE?

The professional development and training opportunities offered to teachers are important for the provision of high quality services because they help ensure teachers possess the competencies critical for providing high quality care. However, broad variation exists in how professional development activities are implemented across Head Start programs. The new Head Start Program Performance Standards (HSPPS) emphasize the provision of professional development that is tailored to teachers' specific needs, including a focus on intensive coaching. Research evidence suggests that the intensity of professional development is important for changing teacher practices (IOM and NRC 2015; Mattera et al. 2013; U.S. Department of Education 2010). Furthermore, the individual who delivers the professional development—for example, whether they are in a supervisory role versus focused entirely on training, coaching, or mentoring—may influence teachers' trust in or openness to the

professional development process (Lloyd and Modlin 2012). In FACES, we examine teachers' training around curriculum and assessment and the mentoring/coaching received by teachers.

Teacher curriculum and assessment training

The majority of Head Start teachers received training on their program's primary curriculum and child assessment tool in the last year. Eighty-four percent of teachers report receiving training on their program's primary curriculum in the last 12 months—spending an average of 15 hours in this training. Eighty-seven percent of teachers report receiving training on their program's primary child assessment tool in the last 12 months—spending an average of 10 hours in this training.
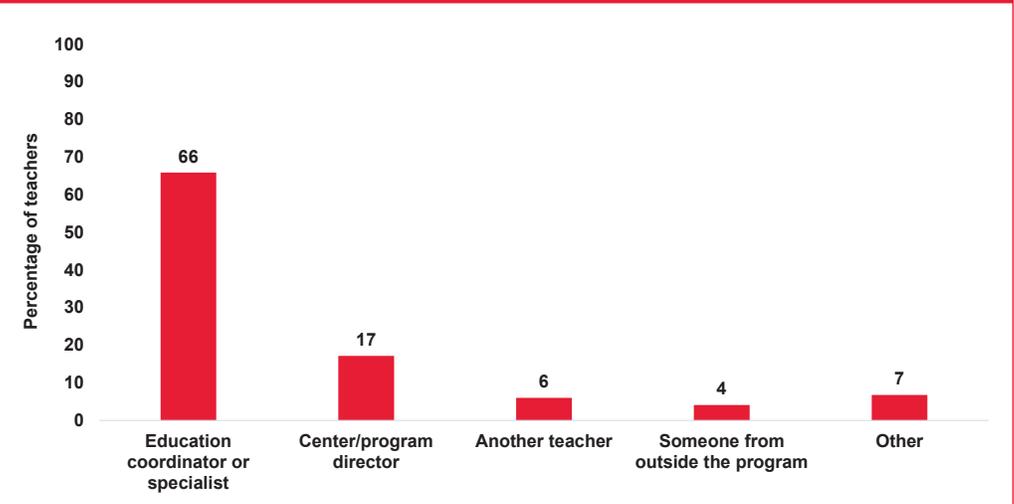
Teacher mentoring[13]

Nearly three-quarters of Head Start teachers (74 percent) say they have a mentor. The likelihood of having a mentor varies significantly by program size, but not by program auspice. Teachers in very large and large programs are more likely to have a mentor than teachers in small and medium programs (84 and 78 percent versus 63 and 61 percent, respectively).

Two-thirds of the mentoring is provided by an education coordinator or specialist. Who provides mentoring varies significantly by program size, but not auspice. Sixty-six percent of teachers receive mentoring from an education coordinator or specialist, 17 percent from a center or program director, 6 percent from other teachers, 4 percent from people outside the program, and 7 percent from other sources (Figure 6). Teachers in medium programs receive mentoring from different sources than teachers in small or very large programs. They are less likely to be mentored by an education coordinator or specialist and more likely to be mentored by a center or program director (Figure 7).

Figure 6:
Most teacher mentoring is provided by an education coordinator or specialist

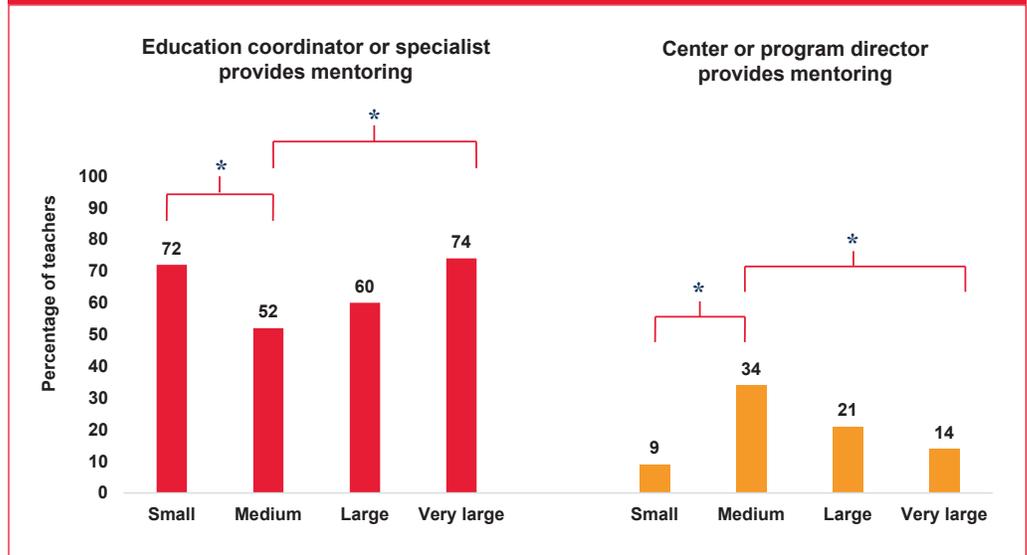Source: Spring 2015 FACES Teacher Survey.

Note: Statistics are weighted to represent all Head Start teachers.

Estimates are presented for the 74 percent of teachers who report receiving mentoring.

Teachers report a great deal of variation in mentoring frequency. There are significant differences in mentoring frequency by program auspice and program size. Among those with a mentor, teachers most commonly report that their mentor visits their classroom once a month (35 percent). Twenty-six percent of teachers are visited by their mentor at least once a week, 11 percent are visited once every two weeks, and 29 percent are visited less than once a month. Monthly visits are more

common among teachers in school-based programs than among teachers in CAAs (48 versus 32 percent). Monthly visits are also more common among teachers in larger programs. Teachers in large and very large programs are more likely to receive monthly mentor visits (42 and 37 percent, respectively) than teachers in medium programs (24 percent; Figure 8). In contrast, weekly mentor visits are more common for teachers in medium programs (38 percent) than for teachers in large programs (21 percent).

Figure 7:

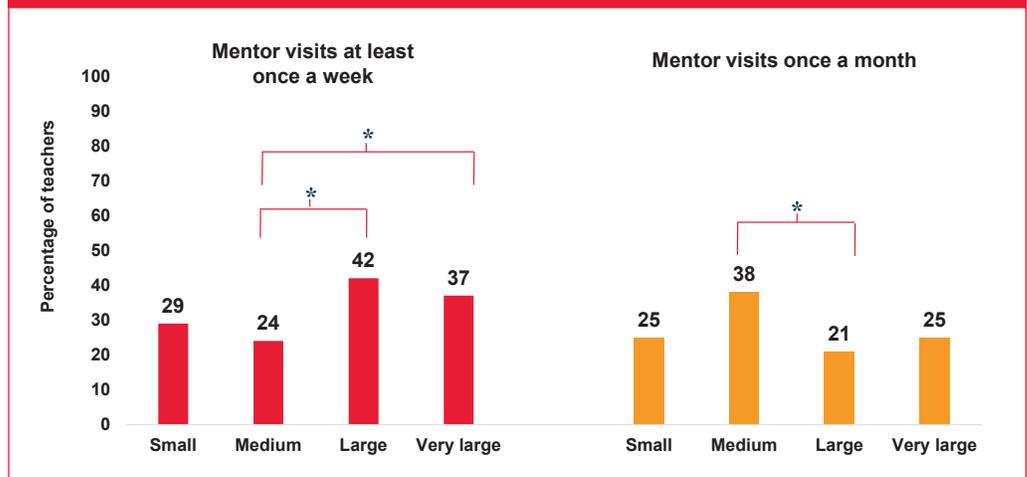**Who provides mentoring varies by program size**

Source: Spring 2015 FACES Teacher Survey.

Note: Statistics are weighted to represent all Head Start teachers.

Estimates are presented for the 74 percent of teachers who report receiving mentoring.

*Asterisk indicates that the differences between groups are statistically significant at the $p \leq$ .05 level.

Figure 8:

Frequency of mentoring varies by program size

Source: Spring 2015 FACES Teacher Survey.

Note: Statistics are weighted to represent all Head Start teachers.

Estimates are presented for the 74 percent of teachers who report receiving mentoring.

*Asterisk indicates that the differences between groups are statistically significant at the $p \leq$ .05 level.

WHAT ARE THE KEY CHARACTERISTICS AND QUALITY OF HEAD START CLASSROOMS?

The quality and consistency of non-parental care provided to young children are among factors that support developmental outcomes (Burchinal 2018; National Institute of Child Health and Development [NICHD] Early Child Care Research Network 1998, 2000; Owen et al. 2008; Shonkoff and Phillips 2000; Votruba-Drzal et al. 2004). The use of aligned evidence-based curricula (Burchinal 2018) and assessment tools that are consistent with program standards is also important for children's learning (National Research Council 2008). In addition, other classroom factors such as group size and child/teacher ratios are associated with the quality of care children receive (ACF 2003; Resnick and Zill 2003) and how children develop (Burchinal 2018). Head Start places a heavy emphasis on classroom quality improvement. For example, the Office of Head Start provides ongoing training and technical assistance to local programs and monitors their performance. Programs are required to provide professional development to staff and to use data to inform ongoing quality improvement efforts. In FACES, we use teacher survey and classroom observation data to describe the key characteristics and quality of Head Start classrooms. We use two observation measures to describe quality—the Early Childhood Environment Rating Scale-Revised (ECERS-R short form) (Clifford et al. 2005; Harms et al 1998) and the full Classroom Assessment Scoring System for prekindergarten (CLASS-PreK) (Pianta et al. 2008).

Curriculum, assessment, and alignment of the two

The majority of Head Start classrooms use the Creative Curriculum and Teaching Strategies GOLD assessment. Seventy-five percent of classrooms use the Creative Curriculum as their primary curriculum, and 11 percent use the HighScope Curriculum (Figure 9). Sixty-two percent of classrooms use the Teaching Strategies GOLD assessment as their primary assessment tool, with considerably fewer using the Learning Accomplishment Profile Screening (7 percent), the Desired Results Developmental Profile (6 percent), and the HighScope Child Observation Record (6 percent). In addition, 72 percent of classrooms that use a curriculum with an available assessment tool use the aligned assessment tool (for example, the Creative Curriculum and Teaching Strategies GOLD assessment, or the HighScope Curriculum and the HighScope Child Observation Record).
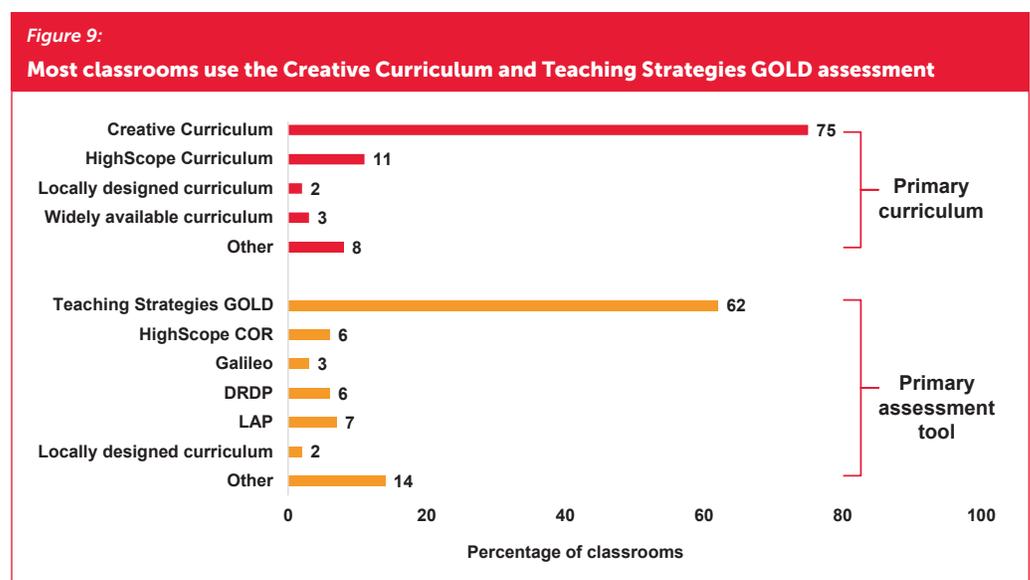
Figure 9:
Most classrooms use the Creative Curriculum and Teaching Strategies GOLD assessment

Source: Spring 2015 FACES Teacher Survey.

Note: Statistics are weighted to represent all Head Start classrooms.

GOLD = Teaching Strategies GOLD; HighScope COR = HighScope Child Observation Record; DRDP = Desired Results Developmental Profile; LAP = Learning Accomplishment Profile Screening.

Time spent in child-selected versus teacher-directed activities

Head Start classrooms typically spend more time daily on child-selected activities than teacher-directed activities. Based on teacher reports of the amount of time spent on different types of activities, we see that 53 percent of classrooms spend two or more hours a day on child-selected activities. In contrast, fewer classrooms spend two or more hours a day on teacher-directed activities: ten percent for whole class activities, five percent for small group activities, and four percent for individual activities. Rather, these teacher-directed activities most commonly occur for half an hour or less (60, 66, and 79 percent of classrooms, respectively).

Child/adult ratio and group size

Head Start classrooms have an average of 5.9 children to each adult and an average group size of 13.9 children.[14] Child/adult ratios vary significantly by program auspice and size, but group sizes do not. The average classroom in CAAs has 5.6 children to each adult, a smaller number than classrooms within other types of operating agencies, which average 6.2 children to each adult. Classrooms in small programs average 5.5 children for each adult, which is lower than classrooms in very large programs (an average of 6.2 children for each adult).[15] The HSPPS minimum requirements are 8.5 children per teacher and a maximum group size of 17 children in classrooms with 3-year-olds, and of 10 children per teacher and a maximum group size of 20 children in classrooms with 4-year-olds.

Observed classroom quality: ECERS-R short form

Head Start classrooms score in the minimal to good range of quality on the ECERS-R based on developer cut points.[16] Head Start classrooms score an average of 4.9 on a 7-point scale on the ECERS-R short form, classified as minimal by cut points established by the tool developer. On the Teaching and Interactions factor, Head Start classrooms score an average of 5.3, which falls in the good range. Sixty-five percent of classrooms score in the good range on this factor, followed by 31 percent in the minimal range (Figure 10). Few classrooms score in the inadequate (1 percent) or excellent (3 percent) range. On the Provisions for Learning factor, Head Start classrooms score an average of 4.6, which falls in the minimal range. Fifty-five percent of classrooms score in the minimal range on this factor, followed by 38 percent in the good range. Few classrooms score in the inadequate (6 percent) or excellent (1 percent) range.

Figure 10:

ECERS-R Teaching and Interactions and Provisions for Learning scores are in the minimal to good range
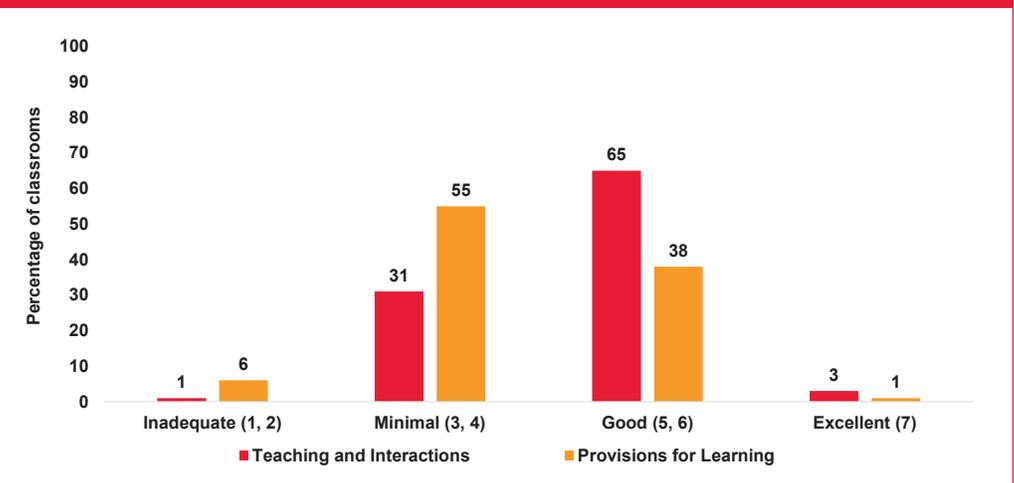
Source: Spring 2015 FACES Classroom Observation.
Note: Statistics are weighted to represent all Head Start classrooms.

There are significant differences in classrooms' ECERS-R scores by program auspice, but not by program size. Classrooms in school-based programs have the highest average score on the ECERS-R short form (5.3) compared to CAA classrooms (4.8) and classrooms in other agency types (4.9). The same pattern is seen for the factor scores. On average, classrooms in school-based programs score higher on the Teaching and Interactions factor (5.7) and the Provisions and Learning factor (5.0) than classrooms in CAAs (5.2 and 4.6, respectively) and classrooms in other agency types (5.3 and 4.5, respectively).

Observed classroom quality: CLASS

Head Start classrooms score in the low range on CLASS Instructional Support, and in the mid range on Emotional Support and Classroom Organization, based on developer cut points.[17] On the Instructional Support domain, Head Start classrooms score an average of 2.4 on a 7-point scale, which is in the low range based on developer cut points. Seventy-six percent of classrooms score in the low range on this domain, with 24 percent scoring in the mid range and 1 percent in the high range (Figure 11). Classrooms score higher on the Emotional Support domain (mean = 5.5) and the Classroom Organization domain (mean = 4.8). Both of these scores fall in the mid range based on developer cut points, and the majority of classrooms score in the mid range (80 percent for Emotional Support and 96 percent for Classroom Organization).

Figure 11:

CLASS Instructional Support scores are in the low range, and Emotional Support and Classroom Organization scores are in the mid range
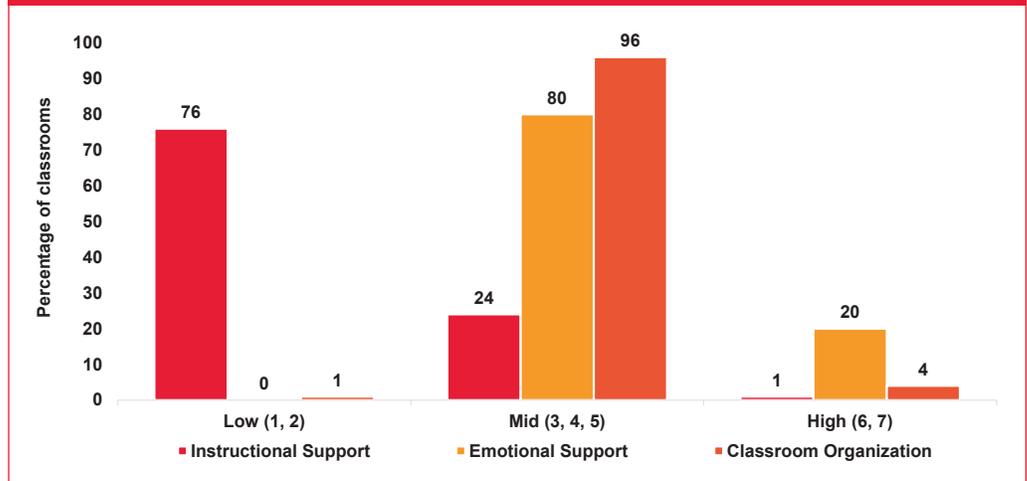
Source: Spring 2015 FACES Classroom Observation.

Note: Statistics are weighted to represent all Head Start classrooms.

Percentages may not sum to 100 due to rounding.

There are significant differences in classrooms' CLASS scores by program auspice, but not by program size. Classrooms in school-based programs score higher on the CLASS Instructional Support domain (2.8) than classrooms in CAAs (2.4) and classrooms in other agency types (2.4). Classrooms in school-based programs also score higher on the CLASS Classroom Organization domain (5.0) than classrooms in CAAs (4.8) and classrooms in other agency types (4.7). There are no differences in the CLASS Emotional Support domain by program auspice.

SUMMARY AND IMPLICATIONS

The purpose of this brief is to describe the characteristics of Head Start programs, leaders, and teachers that prior research shows are related to classroom quality.

HSPPS requirements emphasize the importance of using data on an ongoing basis. Consistent with these expectations, the majority of programs have capacities for data use. More than three-quarters of programs employ someone to analyze and summarize data. Most of these programs have staff members who have received training to support the use of those data.

Most program staff are well-educated and credentialed. More than half of Head Start teachers have at least a bachelor's degree, meeting program requirements that at least half of Head Start teachers hold a bachelor's degree. In addition, more than half have a teaching certificate or license. Head Start teachers also bring many years of teaching experience to the classroom. Their attitudes toward developmentally appropriate practice are positive, and they also report high levels of job satisfaction.

The HSPPS also include requirements for programs to provide professional development to staff and high quality curriculum in classrooms. Consistent with these requirements, mentoring and training are common in Head Start. Nearly three-quarters of teachers say they have a mentor. Most have also received training on their program's primary curriculum and child assessment tool in the last 12 months. Almost three-quarters of classrooms whose curriculum has a corresponding assessment tool available use that tool. Classroom observations reveal that group sizes and child/adult ratios fall within HSPPS requirements.

There are also key areas where programs may need more support. Although they use database systems and employ data analysts, Head Start directors say they need more support with data-driven decision making and program improvement planning. This may be an area where staff could use more in-depth training. Classroom quality, on average, also has room for improvement. As measured by the ECERS-R short form, most classrooms score in the minimal to good range for classroom materials and arrangement and for the quality of teacher-child interactions. On the CLASS, Instructional Support is rated in the low range and Emotional Support and Classroom Organization are rated in the mid range. Mean CLASS and ECERS-R scores in Head Start classrooms are comparable to those reported in other large-scale studies. Finally, about one-third of programs operate for a full year. The new HSPPS expand the minimum levels of program duration. Program schedules may change as a result of these new requirements.

Programs' strengths and challenges vary by program auspice and program size. For example, looking at programs operated by different agencies, school-based programs have more experienced center directors, more teachers with a teaching certificate and a graduate or professional degree, and stronger observed classroom quality. Given higher qualifications of staff and better observed quality in school-based programs, these programs may require less training and technical assistance than other settings (when such supports are available through the school). Differences by program size are somewhat mixed. For example, small programs are least likely to have program and center directors with a graduate or professional degree. Teachers at larger programs are most likely to have a mentor. Mentoring in medium programs is more likely to be provided by a center or program director, and less likely to be provided by an education coordinator or specialist, than in small or very large programs. More information is needed to understand how program size shapes services and management. Taken together, differences by auspice and size can tell us how the need for certain qualifications and supports may differ across Head Start programs.

HEAD START FACES

This research brief draws upon data from FACES 2014. FACES provides information at the national level about Head Start programs, centers, and classrooms, and about the children and families that Head Start serves. This brief is part of a series of reporting products describing data from the 2014–2015 round of FACES 2014. Other FACES 2014 products describe the study's design and methodology (Aikens et al. 2017c, Moiduddin et al. 2017), the characteristics of Head Start (Tarullo et al. 2017) and dual language learner (Aikens et al. 2017b) children and their families at the beginning of the program year, and changes in Head Start children's family environments and developmental outcomes across the program year (Aikens et al. 2017a; Kopack Klein et al. 2018).

Head Start is a national program that promotes school readiness by enhancing the social-emotional, physical, and cognitive development of children through the provision of educational, health, nutritional, social, and other services to enrolled children and their families. The program places special emphasis on helping preschoolers develop the reading, language, social-emotional, mathematics, and science skills they need to be successful in school. It also seeks to engage parents in their children's learning and to promote progress toward the parents' own educational, literacy, and employment goals (ACF 2018). The Head Start program aims to achieve these goals by providing comprehensive child development services to economically disadvantaged children and their families through grants to local public agencies and to private nonprofit and for profit organizations.

METHODS

For FACES 2014, we selected a sample of Head Start programs from the 2012–2013 Head Start Program Information Report, with two centers per program and two classrooms per center. In spring 2015, 176 programs, 346 centers, and 667 classrooms participated in the study. Within these 176 programs, Mathematica staff completed surveys with 597 lead teachers, 322 center directors, and 169 program directors, and observations in 643 Head Start classrooms. Findings are weighted to represent the population of Head Start teachers, classrooms, centers, and programs. More information on the study methodology and measurement in FACES 2014 and tables for findings presented here are available in the "Spring 2015 Data Tables and Study Design" report focused on classrooms and programs (Moiduddin et al. 2017). For all comparisons throughout the brief, all cited differences are statistically significant at the .05 level and lower. Some differences, although statistically significant, are very small and may not always be practically meaningful (for example, those with a difference smaller than 5 percentage points or an effect size smaller than .25).

MEASURES OF OBSERVED CLASSROOM QUALITY

To measure quality of Head Start classrooms, FACES 2014 used two observation measures. The full CLASS for prekindergarten (Pianta et al. 2008) measures classroom quality in terms of both instructional and social-emotional aspects of the environment, across three domains of interaction: Instructional Support, Emotional Support, and Classroom Organization. The CLASS domains are scored from 1 to 7, with higher scores reflecting better quality care. Domain scores are based on the mean score of the underlying dimensions. Instructional Support dimensions include Concept Development, Quality of Feedback, and Language Modeling. Emotional Support dimensions include Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives. Finally, Classroom Organization dimensions include Behavior Management, Productive Use of Time, and Instructional Learning Formats. Each

dimension score is based on the mean of ratings for relevant indicators completed over the course of four cycles during the observation. In addition to calculating mean scores, we also categorized classrooms based on the developer cut points for the CLASS. For the CLASS domains, scores of 1 or 2 = low; 3, 4, or 5 = mid; and 6 or 7 = high. For the purpose of categorizing classrooms, the domain scores were not rounded. For example, a classroom with a score of 5.9 on the CLASS Emotional Support domain would be categorized as falling in the mid range, rather than the high range; only scores of 6.0 or above would be included in the high range.

FACES 2014 also used the short form of the ECERS-R in classroom observations (Clifford et al. 2005; Harms et al. 1998). The ECERS-R is a global rating of classroom quality based on structural features of the classroom and the short form yields two factors: Teaching and Interactions and Provisions for Learning. The ECERS-R factors are scored from 1 to 7, with higher scores reflecting better quality care. The Teaching and Interactions score is based on the mean of ratings for 11 items completed over the course of the observation, and the Provisions for Learning Score is based on the mean of ratings for 12 items. Two items overlap across the two factors. The short form total score is calculated by taking the mean of all of the items in the Teaching and Interactions and Provisions of Learning factors, a total of 21 unique items across the two factors. In addition to calculating mean scores, we also categorized classrooms based on the developer cut points. For the ECERS-R factors, scores of 1 or 2 = inadequate, 3 or 4 = minimal, 5 or 6 = good, and 7 = excellent quality. As for the CLASS, for the purpose of categorizing classrooms, the scores on the ECERS-R factors were not rounded.

ENDNOTES

[1] Unless otherwise noted, we focus on the characteristics of *lead* teachers, defined as the head or primary teacher in the classroom.

[2] Program-level estimates for the school system subgroup are based on a sample of only 25 programs. Therefore, program-level estimates for this group may be less reliable than for the other groups, which have larger sample sizes.

[3] "All other agency types" includes private or public nonprofits (non-CAA), private or public for-profits, and government agencies (non-CAA). Private or public nonprofits (non-CAA) make up 88 percent of this group, and 11 percent are government agencies (non-CAA). The remaining 1 percent are private or public for-profits.

[4] We use cumulative child enrollment to determine subgroups based on program size.

[5] We use the 2013–2014 Head Start Program Information Report (PIR) to categorize programs by auspice and size. To assess whether there are statistically significant differences across these subgroups, we conducted t-tests. All cited differences are statistically significant at the .05 level and lower. Some differences, although statistically significant, are very small and may not always be practically meaningful (for example, those with a difference smaller than 5 percentage points or an effect size smaller than .25). We flag any such differences using endnotes.

[6] Programs are categorized as metropolitan if their zip code is part of a metropolitan statistical area (MSA) based on Census data updated with annual population estimates. An MSA usually includes one city with 50,000 or more inhabitants and the county the city falls within. Nearby counties can also be included if within commuting distance. All other programs, including rural programs, are considered non-metropolitan.

[7] Percentages may not sum to 100 due to rounding.

[8] Many Head Start programs serve non-Head Start children through other funding sources (including tuition). Many also serve Head Start families for longer than the Head Start day, and that may require additional funds to support.

[9] We focus on employment and turnover rates for lead teachers only. Head Start programs may indicate that they employ no teachers because they do not treat any teachers as "lead" or because, at the time of the survey, their lead teacher position is vacant.

[10] Center directors reported the number of teachers who left and had to be replaced as 0, 1, 2, or 3 or more. This variable may underestimate the level of turnover if the director chose a response of 3 or more (and had to replace more than 3 teachers). In all of these cases, the center was assigned a value of 3 for calculating turnover.

[11] In this brief, all estimates from the director surveys are weighted to be representative of programs and centers, but for simplicity, we describe the results in terms of the characteristics of directors rather than those of programs and centers.

[12] The FACES 2014 teacher survey included the short form of the Center for Epidemiologic Studies–Depression Scale (CES-D), a psychosocial measure. The short form includes 12 items on a 4-point scale for frequency in the past week. Total scores range from 0 to 36. Those with scores ranging from 0 to 4 are coded as not having symptoms of depression, from 5 to 9 as mild symptoms of depression, from 10 to 14 as moderate symptoms of depression, and 15 and above as severe symptoms of depression. The CES-D is a screening tool and not a diagnostic tool, but scores have been correlated with clinical diagnosis.

[13] As part of the teacher survey, teachers were asked to report on their experiences with "mentoring or coaching." Throughout this section, we use the term "mentoring" for simplicity.

[14] The number of children and adults are based on data from classroom observations.

[15] These differences, although statistically significant, are very small and may not be considered practically meaningful. Effect sizes were smaller than .25 as measured by Hedges' g.

[16] Scores on the ECERS-R range from 1 to 7, with 1 or 2 = inadequate; 3 or 4 = minimal; 5 or 6 = good; and 7 = excellent quality.

[17] Scores on the CLASS range from 1 to 7, with 1 or 2 = low; 3, 4, or 5 = mid; and 6 or 7 = high.

REFERENCES

Administration for Children and Families. "Head Start Programs." Available at [http://www.acf.hhs. gov/programs/ohs/about/head-start]. Accessed August 2018.

Administration for Children and Families. "Head Start FACES 2000: A Whole-Child Perspective on Program Performance, Fourth Progress Report." Washington, DC: U.S. Department of Health and Human Services, 2003.

Aikens, N., A. Kopack Klein, E. Knas, J. Hartog, M. Manley, L. Malone, L. Tarullo, and S. Lukashanets. "Child and Family Outcomes During the Head Start Year: FACES 2014–2015 Data Tables and Study Design." OPRE Report 2017-100. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2017a.

Aikens, N., E. Knas, L. Malone, L. Tarullo, and J. F. Harding. "A Spotlight on Dual Language Learners in Head Start: FACES 2014." OPRE Report 2017-99. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2017b.

Aikens, N., A. Kopack Klein, E. Knas, M. Reid, A. Mraz Esposito, A. Kopack Klein, M. Manley, L. Malone, L. Tarullo, S. Lukashanets, and J. West. "Descriptive Data on Head Start Children from FACES 2014: Fall 2014 Data Tables and Study Design." OPRE Report 2017-97. Washington, DC: Office of Planning, Research and Evaluation; Administration for Children and Families; U.S. Department of Health and Human Services, 2017c.

Aikens, N., L. Tarullo, L. Hulsey, C. Ross, J. West, and Y. Xue. "A Year in Head Start: Children, Families, and Programs." Report submitted to Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Washington, DC: Mathematica Policy Research, October 2010.

Barnett, W. S. and J. T. Hustedt. "Improving Public Financing for Early Learning Programs." *National Institute for Early Education Research Preschool Policy Brief*, Issue 23, 2011, pp. 1-27.

Bloom, P. J., S. Jackson, T.N. Talan, and R. Kelton. *Taking Charge of Change: A 20-Year Review of Empowering Early Childhood Administrators Through Leadership Training*. Wheeling, IL: McCormick Center for Early Childhood Leadership, 2013.

Burchinal, M. "Measuring Early Care and Education Quality." *Child Development Perspectives*, vol. 12, no. 1, 2018, pp. 3-9.

Cassidy, D. J., J. K. Lower, V. L. Kintner-Duffy, A. V. Hegde, and J. Shim. "The day-to-day reality of teacher turnover in preschool classrooms: An analysis of classroom context and teacher, director, and parent perspectives." *Journal of Research in Childhood Education*, vol. 25, no. 1, 2011, pp. 1-23.

Clifford, R., O. Barbarin, F. Chang, D. 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.

Connors, M. "Creating Cultures of Learning: A Theoretical Model of Effective Early Care and Education Policy." *Early Childhood Research Quarterly*, vol. 36, 2016, pp. 32–45.

Connors, M. and Allison H. Friedman-Krauss. "Varying States of Head Start: Impacts of a Federal Program Across State Policy Contexts." *Journal of Research on Educational Effectiveness*, vol. 10, no. 4, 2017, pp. 675-703.

Gerber, E., M. Whitebook, and R. Weinstein. "At the Heart of Child Care: Predictors of Teacher Sensitivity in Center-Based Child Care." *Early Childhood Research Quarterly*, vol. 22, no. 3, 2007, pp. 327–346.

Harms, T., R. Clifford, and D. Cryer. *Early Childhood Environment Rating Scale–Revised (ECERS-R)*. New York: Teachers College Press, 1998.

Institute of Medicine (IOM) and National Research Council (NRC). "Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation." Washington, DC: The National Academies Press, 2015.

Kopack Klein, A., N. Aikens, L. Malone, and L. Tarullo. "A Year in Head Start: Findings from FACES 2014 on Children's Progress Toward School Readiness During the 2014-2015 Program Year." OPRE Report 2018-80. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2018.

Lloyd, C. M., and E. L. Modlin. "Coaching as a Key Component in Teachers' Professional Development: Improving Classroom Practices in Head Start Settings." Washington, DC: Office of Planning, Research and Evaluation; Administration for Children and Families; U.S. Department of Health and Human Services, 2012.

Mattera, Shira, Chrishana M. Lloyd, Mike Fishman, and Michael Bangser. "A First Look at the Head Start CARES Demonstration: Large-Scale Implementation of Programs to Improve Children's Social-Emotional Competence." OPRE Report 2013-47. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2013.

McLean, Leigh, and Carol McDonald Connor. "Depressive Symptoms in Third-Grade Teachers: Relations to Classroom Quality and Student Achievement." *Child Development*, vol. 86, no. 3, May/June 2015, pp. 945–954.

Moiduddin, E., C. Bush, M. Manley, N. Aikens, L. Tarullo, L. Malone, and S. Lukashanets. "A Portrait of Head Start Classrooms and Programs in Spring 2015: FACES 2014-2015 Data Tables and Study Design." OPRE Report 2017-101. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2017.

Moiduddin, E., N. Aikens, L. Tarullo, J. West, and Y. Xue. "Child Outcomes and Classroom Quality in FACES 2009." OPRE Report 2012-37a. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2012.

National Academies of Sciences, Engineering, and Medicine. 2018. *Transforming the Financing of Early Care and Education*. Washington, DC: The National Academies Press. doi: https://doi.org/10.17226/24984.

National Research Council. *Early Childhood Assessment: Why, What, and How*, edited by C.E. Snow and S.B. Van Hemel. Washington, DC: The National Academies Press, 2008.

NICHD Early Child Care Research Network. "Early Child Care and Self-Control, Compliance, and Problem Behavior at 24 and 36 Months." *Child Development*, vol. 69, no. 4, 1998, pp. 1145–1170.

NICHD Early Child Care Research Network. "The Relation of Child Care to Cognitive and Language Development." *Child Development*, vol. 71, no. 4, 2000, pp. 960–980.

Owen, M.T., J.F. Klauski, A. Mata-Otero, and M.O. Caughy. "Relationship-Focused Child Care Practices: Quality of Care and Child Outcomes for Children in Poverty." *Early Education and Development*, vol. 19, no. 2, 2008, pp. 302–329.

Pianta, R., K. LaParo, and B. Hamre. *The Classroom Assessment Scoring System Pre-K Manual*. Charlottesville, VA: University of Virginia, 2008.

Resnick, Gary, and Nicholas Zill. "Understanding Quality in Head Start Classrooms: The Role of Teacher and Program-Level Factors." Presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL, April 2003.

Shonkoff, J.P., and D.A. Phillips. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academies Press, 2000.

Tarullo, L., E. Knas, A. Kopack Klein, N. Aikens, L. Malone, and J. F. Harding. "A National Portrait of Head Start Children and Families: FACES 2014." OPRE Report 2017-98. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2017.

Tout, K., D. Epstein, M. Soll, and C. Lowe. "A Blueprint for Early Care and Education Quality Improvement Initiatives: Final Report." Washington, DC: Child Trends, March 2015.

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Service. "Toward the Identification of Features of Effective Professional Development for Early Childhood Educators, Literature Review." Washington, DC: U.S. Department of Education, 2010.

Votruba-Drzal, E., R.L. Coley, and P.L. Chase-Lansdale. "Child Care and Low-Income Children's Development: Direct and Moderated Effects." *Child Development*, vol. 71, no. 1, 2004, pp. 296–312.

Whitebook, M., and L. Sakai. "Turnover Begets Turnover: An Examination of Jobs and Occupational Instability Among Child Care Center Staff." *Early Childhood Research Quarterly*, vol. 18, no. 3, 2003, pp. 273-293.