

Professional Characteristics of the Early Care and Education Workforce: Descriptions by Race, Ethnicity, Languages Spoken, and Nativity Status

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### Professional Characteristics of the Early Care and Education Workforce: Descriptions by Race, Ethnicity, Languages Spoken, and Nativity Status

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#### **Reports in this Series**

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### **Overview**

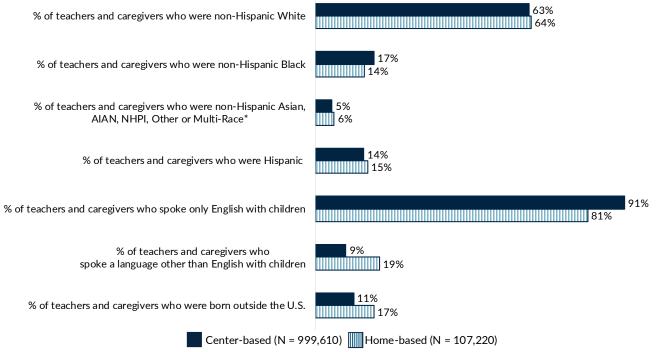
Racial and ethnic, linguistic, and cultural diversity in early care and education (ECE) settings are emerging as critically important aspects of provider quality. As of 2012, nearly half of young children under age 5 were children of color and/or Hispanic, 22 percent spoke a language other than English at home,<sup>1</sup> and 24 percent lived in immigrant households.<sup>2</sup> Young children from a variety of racial and ethnic, cultural, and linguistic backgrounds benefit from culturally diverse experiences in the classroom, as well as experiences that support their households' cultural background (Reid & Kagan, 2015).

This report presents a national portrait of center-based and home-based ECE teachers and caregivers from the 2012 National Survey of Early Care and Education (NSECE). It describes the professional characteristics and motivations of teachers and caregivers working in center-based and home-based settings by race and Hispanic ethnicity, languages spoken, and nativity status.

### **Key findings**

Different patterns of professional characteristics emerged between teachers and caregivers from different demographic backgrounds. Teachers and caregivers who identified as a person of color, who spoke a language other than English or multiple languages with children, and/or who were born outside the United States had lower rates of bachelor's degree attainment and were more likely to access continuing education and professional development opportunities than teachers and caregivers who identified as White, spoke only English with children, and/or who were born in the United States. In addition, motivations for working in the ECE field varied by racial and ethnic identity and languages spoken. A selection of key findings is presented below.

Figure 1. Racial and ethnic, linguistic, and nativity status characteristics of the ECE workforce by setting.



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data and the 2012 NSECE home-based provider survey public use data. Totals reflect the population of teachers and caregivers in each setting. Totals are rounded to the nearest 10. \*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

<sup>&</sup>lt;sup>1</sup> The 2012 National Survey of Early Care and Education household survey permitted respondents to report the languages spoken at home. Although 31 distinct languages were reported, the public use dataset collapsed the categories into five possible classifications to prevent disclosure of personally identifiable information. Those categories were: 1. English Only, 2. English and Spanish/Spanish Creole, 3. Spanish/Spanish Creole Only, 4. English and Other, 5. Other Only. Authors' analysis in this statement combines information from categories 2-5.

<sup>2</sup> Authors' analysis of the 2012 National Survey of Early Care and Education.

- The ECE workforce in each setting (centers and homes) reflected the racial and ethnic makeup of adults in the United States in 2012. However, as a companion report illustrates (Paschall, Madill, & Halle, 2020), teachers and caregivers do not necessarily reflect the racial and ethnic makeup of children who use ECE.
- Teachers and caregivers in both centers and homes who identified as Hispanic or non-Hispanic Black, and who spoke a language other than English with children, were more likely to have a Child Development Associate (CDA) credential or a state certificate or endorsement and less likely to have a bachelor's degree, relative to those who were non-Hispanic White or who spoke only English with children, respectively. A higher proportion of teachers and caregivers in centers and homes who were born outside of the United States had CDAs or state certifications to teach young children, compared with those born in the United States.
- Teachers and caregivers in both centers and homes who identified as Hispanic or non-Hispanic Black and/or who spoke a non-English language with children were more engaged in professional development opportunities than non-Hispanic White and/or English-only speaking teachers and caregivers, including college course enrollment, working with a coach or mentor, and professional organization membership.

Although the study is, overall, representative of ECE providers in the United States in 2012, small sample sizes for some subgroups yields limited precision (e.g., non-Hispanic other race, <sup>3</sup> speaking a language other than English or Spanish). To further confirm the findings, future studies should replicate analyses with larger sample sizes and disaggregate racial and linguistic groups as possible. In addition, teachers and caregivers who were born outside the United States, those who identified as a person of color and/or Hispanic, and those who spoke a language other than English with children are each a diverse group in their own right, representing a multitude of racial and ethnic, linguistic, geographic, and cultural backgrounds. Although combined here due to sample size limitations, each unique subgroup may have distinct ECE professional characteristics and may require specific supports to promote their professional development.

<sup>&</sup>lt;sup>3</sup> The category of non-Hispanic other race included the following self-identification categories: Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other, Multi-Race. Although there is great diversity within and among these racial groups, they were combined due to small sample size and to avoid disclosure in the public use dataset. In tables and figures throughout the report, we use "Non-Hispanic Asian, AlAN, NHPI, Other or Multi-Race" to denote this combined category.

### Introduction

As of 2012, there were nearly 1 million center-based early care and education (ECE) teachers and caregivers in the United States, and over 100,000 home-based ECE teachers and caregivers.<sup>4,5</sup> Taken together, the early care and education workforce cared for over 4 million demographically diverse children. According to the National Survey of Early Care and Education (NSECE) conducted in the United States in 2012, 47 percent of young children under age 5 were children of color and/or Hispanic,<sup>6</sup> 22 percent spoke a language other than English at home,<sup>7</sup> and 24 percent lived in immigrant households.<sup>8</sup>

National early childhood organizations have identified racial and ethnic, linguistic, and cultural diversity among caregivers as important aspects of early care and education quality, meaning that teachers and caregivers who reflect, reinforce, and introduce cultural practices through their teaching and care contribute positively to young children's development (Reid & Kagan, 2015). In line with demographic changes in the general population of the United States, an increasing number of teachers and caregivers are providing care for young children are people of color, speak languages other than English, and were born outside the United States. An analysis of Census Bureau data, for example, indicates that in 1990 immigrants made up only 8 percent of the ECE workforce compared to 18 percent by 2013 (Park, McHugh, Zong, & Batalova, 2015). Given demographic changes in the workforce over time, it is important to understand the professional characteristics of workforce members from various racial and ethnic and linguistic groups, and between those born in and outside of the United States. Differences in professional characteristics may signal disparities in access to educational and/or professional development opportunities based on teachers' and caregivers' race, ethnicity, language, or nativity status. Identifying whether and what differences may emerge from the data can guide where resources are needed to ensure ECE professionals are equitably supported. Reporting on the racial, ethnic, linguistic, and cultural diversity of the ECE workforce is therefore important for informing efforts to target professional development for the ECE workforce and improve workforce qualifications. In a companion report, we compare the racial and ethnic, linguistic, and nativity status characteristics match of ECE teachers and caregivers to the young children who use each type of ECE (e.g., center-based, home-based).

In this report, we provide a national portrait of the professional characteristics of the ECE workforce by race and ethnicity, languages spoken with children, and nativity status among those working in both center-based and home-based settings. We focus on three categories of professional characteristics: education level and credentialing; professional development; and professional motivations. Research has found connections between these professional characteristics and indicators of ECE quality, and professional standards often tie them to certain quality ratings or credentialing levels (Madill, Moodie, Zaslow, & Tout, 2015). In terms of education level, evidence suggests positive links between educational attainment and quality, although it is not clear that this connection requires workforce members to attain a bachelor's degree. Rather, some evidence suggests that attaining an associate degree or higher is linked to higher quality compared to attaining lower levels of education (Madill et al., 2015). Professional associations, including the National Association for the Education of Young Children (NAEYC), state that lead teachers should attain an ECE degree, while assistants and aides should have, at minimum, a Child Development Associate (CDA; NAEYC, 2018). However, questions remain as to whether a degree is an adequate indicator of ECE competencies or quality (Epstein, Halle, Moodie, Sosinsky, Zaslow, 2016). For this reason, we consider other categories of professional characteristics that are linked to observed quality.

 $<sup>^{\</sup>rm 4}\,$  Authors' analysis of the 2012 National Survey of Early Care and Education.

<sup>&</sup>lt;sup>5</sup> This count includes only listed home-based providers. Listed home-based providers are those who appear on state or federal administrative lists of home-based child care providers. They are also paid for care.

<sup>&</sup>lt;sup>6</sup> As of the 2015 Census, 50 percent of young children were children of color and/or Hispanic.

<sup>&</sup>lt;sup>7</sup> The 2012 National Survey of Early Care and Education household survey permitted respondents to report the languages spoken at home. Although 31 distinct languages were reported, the public use dataset collapsed the categories into five possible classifications to prevent disclosure of personally identifiable information. Those categories were: 1. English Only, 2. English and Spanish/Spanish Creole, 3. Spanish/Spanish Creole Only, 4. English and Other, 5. Other Only. Authors' analysis in this statement combines information from categories 2-5.

<sup>8</sup> Authors' analysis of the 2012 National Survey of Early Care and Education.

Professional development participation, including courses, workshops, and coaching and mentoring, is linked to higher observed quality in both center-based and home-based ECE. Finally, having intrinsic professional motivations, which can include viewing the ECE field as a career or calling or being motivated by a desire to help people, is linked to higher quality of care and longer time spent in the workforce compared to having extrinsic motivations, such as the convenience of the work or receiving payment (Madill et al., 2015).

This report provides a descriptive view of equity of professional opportunities such as college course enrollment, working with a coach or mentor, and professional organization membership among the ECE workforce. Given the connections between these professional characteristics and quality of care for children, it is fundamental to understand the professional characteristics of each demographic group. Findings provide preliminary evidence of the professional pathways of historically marginalized groups and suggest which groups have opportunities to attain professional characteristics such as higher education or training. This report can inform strategies for supporting the professional development of the demographically diverse ECE workforce in order to ensure children of all racial, linguistic, and nativity backgrounds receive high-quality care.

### **Data and Method**

The data presented in this report are from the National Survey of Early Care and Education (NSECE), a set of four nationally-representative surveys of early care and education, the early care and education workforce, and families with young children from 2012. In this report, we looked at teachers and caregivers working in two settings: center-based care and home-based care. Center-based teachers and caregivers described in this report served at least one child under the age of 6 and not yet in kindergarten. The sample of workforce members includes lead teachers, teachers, assistant teachers, and aides, as well as teachers and caregivers who worked in public and privately funded centers. Home-based teachers and caregivers described in this report were paid to care for children, were listed on a state or federal registry of early care and education providers, and did not exclusively serve children with whom they had a prior relationship. Note that home-based teachers and caregivers who cared for fewer than three children were not asked about the language(s) they spoke when working with children.<sup>9</sup> There is significant overlap among the racial and ethnic, language, and nativity status categories. For instance, the majority of ECE teachers and caregivers who speak a language other than English were born outside the United States, and the majority of teachers and caregivers who were born outside the United States and spoke a language other than English were people of color or Hispanic.

Table 1. Teachers and caregivers by setting type and demographic characteristics

	Center-based settings	Home-based settings
Race and Hispanic ethnicity		
Non-Hispanic White	623,420	65,680
Non-Hispanic Black	171,700	14,860
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	48,340	5,720
Hispanic	142,190	15,920

<sup>&</sup>lt;sup>9</sup> Our definition of home-based teachers and caregivers and languages spoken differ from those included in the "Early Childhood Workforce Index," a report produced by the Center for the Study of Child Care Employment (CSCCE) at the University of California, Berkeley, that similarly uses the NSECE data (CSCCE, 2018). Given the differences in definition, our findings differ slightly from those reported in CSCCE's report.

	Center-based settings	Home-based settings
Languages spoken with children		
English only	904,240	74,140
A non-English language (in addition to, or other than, English)**	84,600	19,090
Nativity status		
Born outside the United States	109,550	18,160
Born in the United States	855,260	86,770

Note. Values are rounded to the nearest 10.

Analyses were conducted using each dataset's sampling weights, allowing for inferences to be drawn on the national population of ECE teachers and caregivers in center-based and home-based settings in 2012. We report statistically significant differences between subgroups within setting type (e.g., differences among center-based teachers and caregivers of different races and ethnicities) for differences of seven percentage points or more. We chose this value because when we conducted analyses, we found seven percentage points to be the smallest percentage point difference threshold that constituted statistically significant differences between groups. The center-based and home-based workforces were examined separately, and given differences in their sampling designs, it is not appropriate to calculate statistical significance of differences between these two setting types. Due to small sample sizes, teachers who identify as Asian, Native American, and multiracial are grouped into the non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race group.

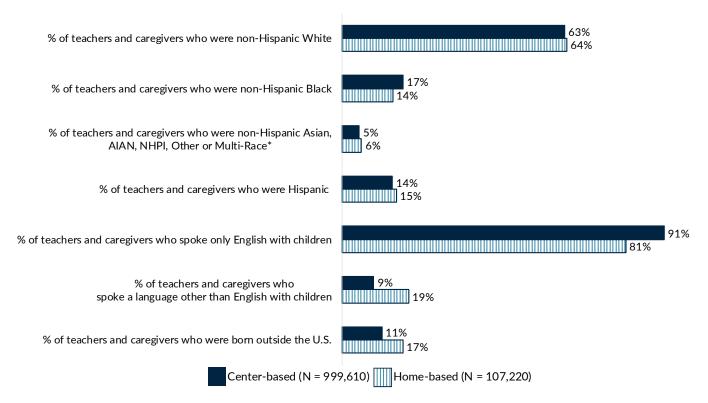
### Describing the ECE Workforce by Setting

As shown in Figure 1, the ECE workforce in each setting (centers and homes) was racially and ethnically diverse. Across settings, the racial and ethnic makeup of the workforce reflects the makeup of American adults in 2012 (non-Hispanic White: 63%, non-Hispanic Black: 12%, Hispanic: 17%; Kaiser Family Foundation, 2019). In center-based settings approximately one in ten teachers and caregivers spoke a language in addition to, or other than, English and were born outside the United States. In home-based settings, approximately one in five teachers and caregivers spoke a language in addition to, or other than, English and were born outside the United States.

<sup>\*</sup> This category of non-Hispanic race included the following self-identification categories: Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other, Multi-Race.

<sup>\*\*</sup> Detailed information about how languages spoken with children was asked of respondents in the various surveys, as well as how that information was recoded for analysis in this report, is provided in the appendix to this report.

**Figure 1.** Racial and ethnic, linguistic, and nativity status characteristics of the ECE workforce by setting.



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data and the 2012 NSECE home-based provider survey public use data.

Note. Totals reflect population of teachers and caregivers in each setting. Totals rounded to the nearest 10.

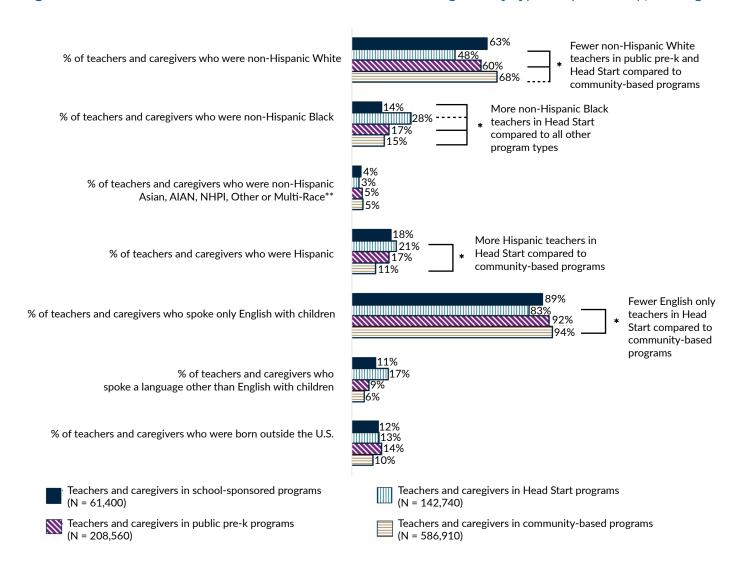
\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

# Describing the Center-Based Workforce by Funding Source

Centers often receive funding from multiple sources; our analyses used mutually-exclusive categories of sponsorship based on a practical, sequential categorization strategy. First, any center reporting school sponsorship, whether they also received funding from Head Start, public pre-K or other sources, was categorized as a school-sponsored center. Among programs not sponsored by schools, those who reported receiving Head Start funding were categorized as Head Start centers, regardless of whether they also received public pre-K funding. Those who reported receiving public pre-K, but not Head Start funding, were categorized as public pre-K centers. The remaining centers were categorized as community-sponsored programs.

As shown in Figure 2, the workforce in center-based programs receiving Head Start funds was more likely to identify as a person of color and to speak a non-English language with children compared with the workforce in community-based programs, programs receiving public pre-K funding and those that were school sponsored. Specifically, a higher proportion of the workforce in center-based programs receiving Head Start funds identified as non-Hispanic Black or Hispanic, and fewer identified as non-Hispanic White, compared to the workforce in community-based settings. In addition, a smaller percentage of teachers and caregivers in center-based programs that received Head Start funds spoke only English with children compared to teachers and caregivers in community-based centers and programs that received public pre-K funds.

Figure 2. Characteristics of center-based ECE teachers and caregivers by type of sponsorship/funding



Source: Authors' analysis of the 2012 NSECE center-based provider survey public use data and the 2012 NSECE center-based workforce survey public use data.

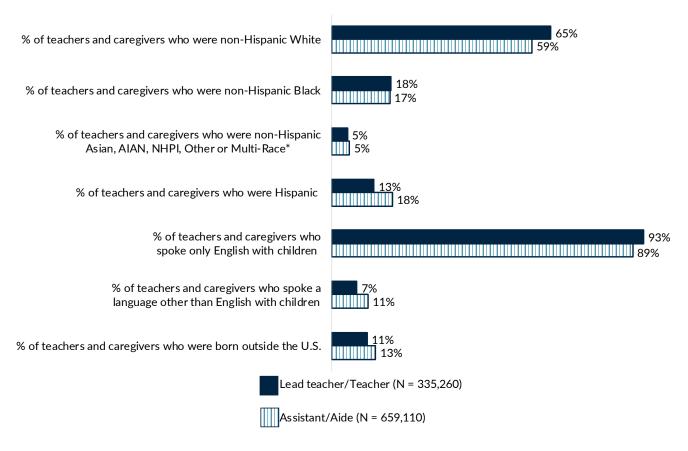
*Note.* Totals reflect population of teachers and caregivers in each sponsorship/funding group. Totals rounded to the nearest 10. Where more than two groups are compared, the comparison group that significantly differs from the rest is indicated with a dashed line. \*Statistically significant differences, p<.05.

\*\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

# Describing the Center-Based Workforce by Classroom Role

Lead teachers/teachers had racial and ethnic, linguistic, and immigration status characteristics similar to those of assistants and aides. Findings are presented in Figure 3.

Figure 3. Characteristics of the center-based ECE workforce by classroom role



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data.

Note. Totals reflect population of teachers and caregivers in each role. Totals rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race."

Next, we examined the professional characteristics of teachers and caregivers in each demographic subgroup, beginning with racial and ethnic subgroups.

# The Professional Characteristics of the ECE Workforce by Race and Hispanic Ethnicity

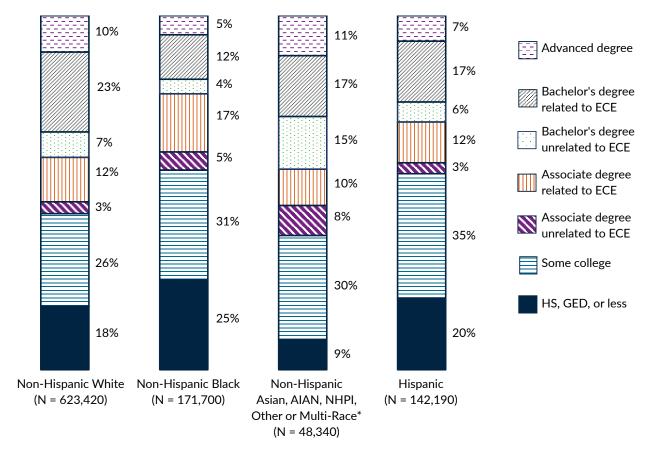
Teachers reported their highest level of educational attainment as well as their certifications, including Child Development Associate (CDA) or state certification to teach young children, special education, or elementary school.

# Center-based teachers' and caregivers' education level and certification

As shown in Figure 4, the percentage of center-based teachers with at least a bachelor's degree was significantly higher among those who identified as non-Hispanic White (40%) or a non-Hispanic Asian, AIAN, NHPI, or Other race (43%), than among those who identified as Hispanic (30%), and those who identified as non-Hispanic Black (21%).

Figure 5 shows the percentage of center-based teachers and caregivers who had a CDA or state certification to teach young children, special education, or elementary school. A significantly higher percentage of teachers who identified as non-Hispanic Black and Hispanic had a certification to teach children (53% and 58%, respectively) compared to those who were non-Hispanic White or a non-Hispanic Asian, AIAN, NHPI, or Other race (45% and 44%, respectively).

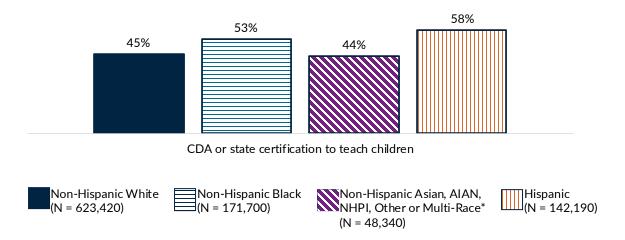
**Figure 4.** Educational attainment and degree area by race and Hispanic ethnicity (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10.

<sup>\*</sup>This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

**Figure 5.** Percentage of teachers and caregivers who have a CDA or attained a state certification to teach young children, special education, or elementary school by race and Hispanic ethnicity (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data.

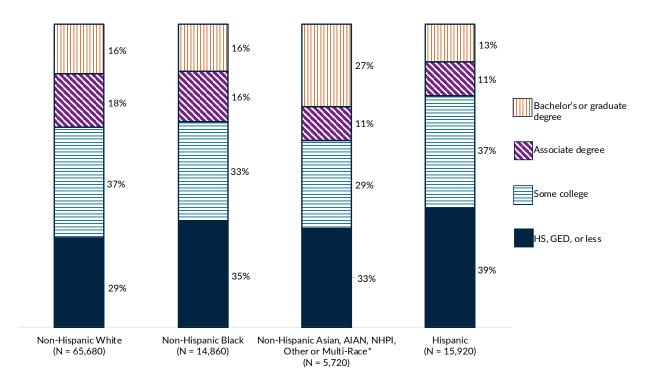
Note. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander. Other or Multi-Race.

## Home-based teachers' and caregivers' education level and certification

As shown in Figure 6, 27 percent of teachers and caregivers who identified as a non-Hispanic other race held bachelor's degrees, compared to 16 percent of teachers and caregivers who identified as non-Hispanic White or non-Hispanic Black and 13 percent of teachers and caregivers who identified as Hispanic. Home-based teachers and caregivers who identified as Hispanic were the least likely to have an education at or above an associate degree level (24%) compared to those who identified as a non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race (38%), non-Hispanic Black (32%), or non-Hispanic White (34%). As shown in Figure 7, among those with post-secondary coursework, teachers and caregivers who identified as Hispanic were the most likely to have majored in ECE or a related field. As shown in Figure 8, teachers and caregivers who identified as non-Hispanic Black and Hispanic were the most likely to have a CDA, state certification, or endorsement for early care and education or school age care.

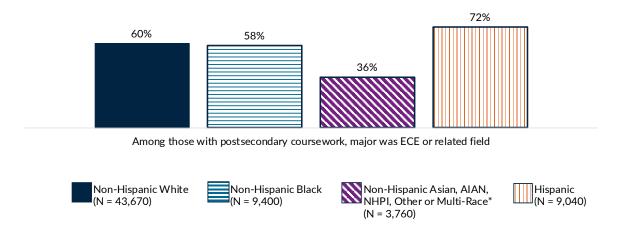
Figure 6. Educational attainment by race and Hispanic ethnicity (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

**Figure 7.** Major in ECE/related fields among those with postsecondary coursework by race and Hispanic ethnicity (home-based workforce)

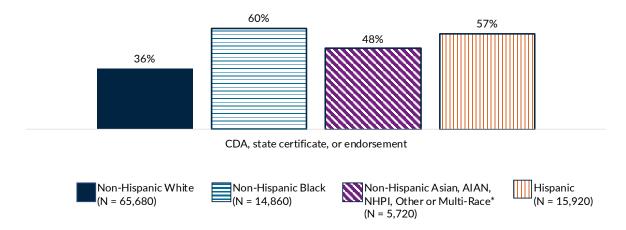


Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data.

Note. Data reflects major across all levels of educational attainment due to small cell sizes when examining each combination of degree and major individually (e.g., associate and ECE major; bachelor's and ECE major). Totals reflect the population of each race and ethnicity group among those who reported any postsecondary coursework. Totals are rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

**Figure 8.** CDA, certificate, or endorsement attainment by race and Hispanic ethnicity (home-based workforce)

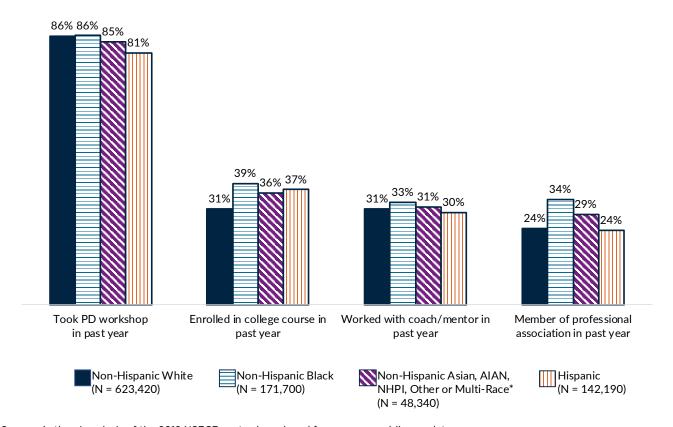


Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10. \*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

# Center-based teachers' and caregivers' professional development and professional orientation

As shown in Figure 9, center-based teachers and caregivers across race and Hispanic ethnicity categories were highly likely to have taken a professional development workshop in the past year, but rates of participation in other forms of professional development varied. A smaller percentage of center-based teachers who identified as non-Hispanic White reported taking a college course compared to those who were non-Hispanic Black, which may be explained by the fact that non-Hispanic White teachers were more likely than other racial and ethnic groups to already have a postsecondary degree (see Figure 4). Approximately one third of teachers who identified as non-Hispanic Black were members of a professional child care or early education association, which was higher than the membership rates for those who identified as non-Hispanic White or Hispanic.

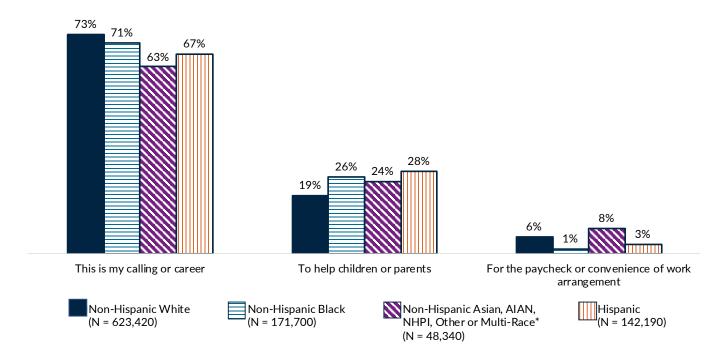
**Figure 9.** Professional development characteristics by race and Hispanic ethnicity (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note*. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10. \*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

As shown in Figure 10, center-based teachers who identified as non-Hispanic White and Black were the most likely to report that ECE was their calling or career. Approximately a quarter of teachers who identified as non-Hispanic Black, non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race, or Hispanic reported that ECE was a career they chose in order to help children and parents.

**Figure 10.** Motivations for working with children by race and Hispanic ethnicity (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data.

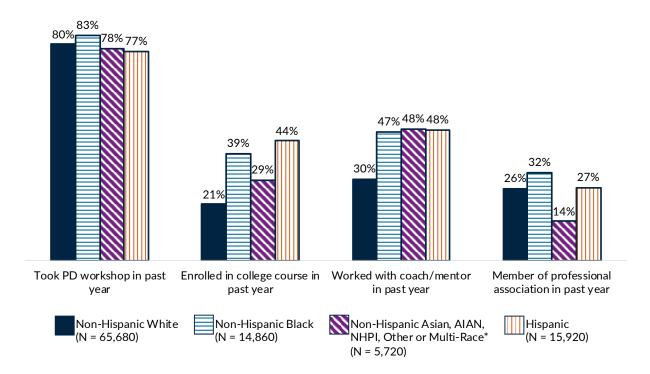
Note. Reasons were mutually-exclusive categories. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

# Home-based teachers' and caregivers' professional development and professional orientation

All home-based teachers and caregivers, regardless of demographic background, were highly likely to have participated in a professional development workshop in the past year. As shown in Figure 11, home-based teachers and caregivers who identified as non-Hispanic Black or Hispanic were the most likely to report enrolling in college courses, and home-based teachers and caregivers who identified as non-Hispanic Black were the most likely to be members of a professional association. Home-based teachers and caregivers who identified as non-Hispanic White were the least likely to work with a coach or mentor (30%), and those who identified as a non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race were the least likely to be a member of a professional association (14%).

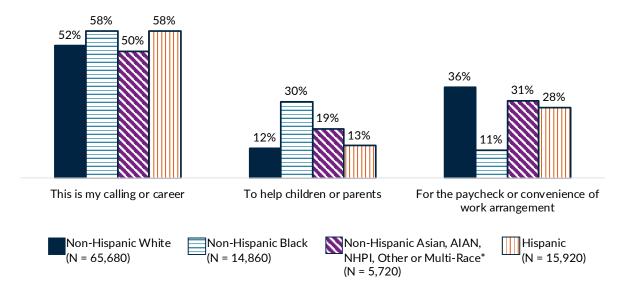
**Figure 11.** Professional development characteristics by race and Hispanic ethnicity (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10. \*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

As shown in Figure 12, at least 50 percent of home-based teachers and caregivers of all races reported that child care and early education was their calling or career. Home-based teachers and caregivers who identified as non-Hispanic Black and Hispanic were the most likely to report that child care and early education was their calling or career. In addition, a sizeable proportion (30%) of teachers and caregivers who identified as non-Hispanic Black reported working with children in order to help children and parents, and few (11%) noted their reason was due to the paycheck or convenience of the work arrangement. Teachers and caregivers who identified as non-Hispanic White were the most likely to report that they worked with children for the paycheck or convenience, and sizeable proportions of teachers and caregivers who identified as a non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race (31%) or Hispanic (28%) noted this reason as well.

**Figure 12.** Reasons for working with young children by race and Hispanic ethnicity (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data.

Note. Reasons were mutually-exclusive categories. Totals reflect the population of each race and ethnicity group. Totals are rounded to the nearest 10.

\*This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

# Conclusions on the professional characteristics of the ECE workforce by race and Hispanic ethnicity

- Among teachers and caregivers in center-based settings, those who identified as non-Hispanic White were among the most highly educated (similar to those of a non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race) and most likely to report that child care and early education was their calling or career. Among teachers and caregivers in home-based settings, those who identified as non-Hispanic White had education levels similar to those who were non-Hispanic Black or a non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race; however, they were the least likely to have a certification or endorsement for education or care and displayed lower levels of professional development involvement, particularly when compared to non-Hispanic Black and Hispanic teachers and caregivers.
- Teachers and caregivers in both center-based and home-based settings who identified as non-Hispanic Black had lower rates of four-year degree attainment and higher rates of two-year degree attainment compared with those in other race/ethnic groups. They were also more engaged in professional development activities than teachers and caregivers who identified as non-Hispanic White or a non-Hispanic Asian, AIAN, NHPI, or Other race. Teachers and caregivers who identified as non-Hispanic Black were most likely to be motivated to work with children because they believed that child care and early education was their calling or because their professional role helps children and parents; they were the least likely to be motivated by a paycheck or convenience.
- Teachers and caregivers in both center-based and home-based settings who identified as Hispanic
  were highly likely to hold a certification in teaching or child care, although those in home-based
  settings were not likely to have attained education beyond some college. In addition, across both
  settings, Hispanic teachers and caregivers had the same levels of engagement in professional
  development as those who did not identify as Hispanic.
- Center-based and home-based teachers and caregivers who identified as a non-Hispanic Asian,
   AIAN, NHPI, Other or Multi-Race had attained high levels of education and were as likely as

teachers and caregivers who identified as non-Hispanic White, non-Hispanic Black, and Hispanic to have taken a professional development workshop in the last year or worked with a coach or mentor. Compared to those who identified as non-Hispanic Black and Hispanic, a smaller percentage (50%) noted that they were motivated to work in ECE because it was their calling or career.

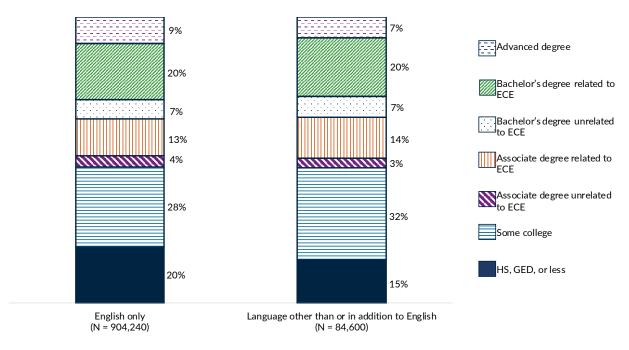
Next, we compare the characteristics of teachers and caregivers who speak various languages with children.

# The Professional Characteristics of the ECE Workforce by Language(s) Spoken When Working with Children

## Center-based teachers' and caregivers' education level and certification

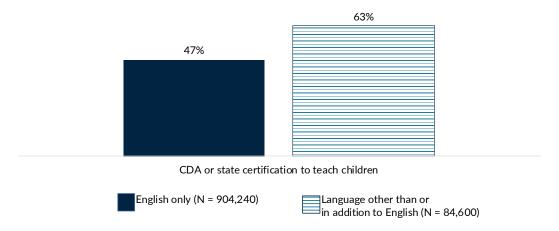
As shown in Figure 13, there were no education level differences between center-based teachers and caregivers who spoke only English with children and those who spoke a language in addition to, or other than, English when working with children. However, a higher proportion of center-based teachers and caregivers who spoke English and/or another language reported having a CDA or state certification to teach young children, special education, or elementary school than center-based teachers and caregivers who spoke only English (63% compared to 47%; see Figure 14).

**Figure 13.** ECE teachers and caregivers with each level of educational attainment by language(s) spoken when working with children (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

**Figure 14.** Percentage of teachers and caregivers who have a CDA or attained a state certification to teach young children, special education, or elementary school by language(s) spoken when working with children (center-based workforce)

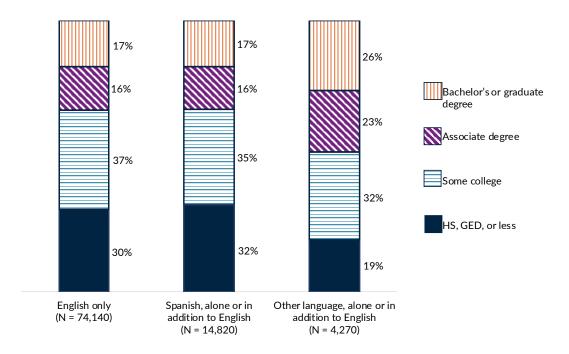


Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

## Home-based teachers' and caregivers' education level and certification

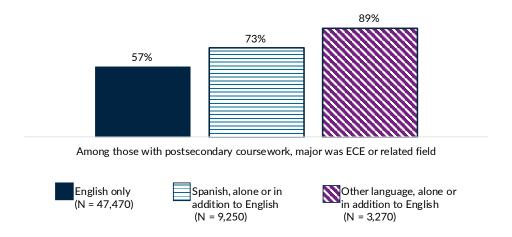
The data available on the home-based workforce allowed for analysis of more detailed language categories, but only among the home-based workforce in large settings (those who cared for four or more children). These included teachers and caregivers who spoke Spanish (alone, or in addition to English), and those who spoke a language other than English or Spanish (alone, or in addition to English) when working with children. As shown in Figure 15, there were no educational attainment differences between home-based teachers and caregivers who spoke only English and those who spoke Spanish, which was the most commonly spoken language along with English, when working with children. However, home-based teachers and caregivers who spoke a language other than English or Spanish with children had attained higher levels of education, specifically associate or bachelor's degrees, compared to home-based teachers and caregivers who spoke only English or Spanish with children. In addition, among teachers and caregivers who completed at least some college, those who spoke a language other than English or Spanish with children were most likely to have majored in ECE or a related field (90%, see Figure 16). Teachers who spoke a language other than English or Spanish with children also had higher rates of certification or credentialing compared to those who spoke only English or Spanish (see Figure 17).

**Figure 15.** Educational attainment by language(s) spoken when working with children (large homebased workforce)



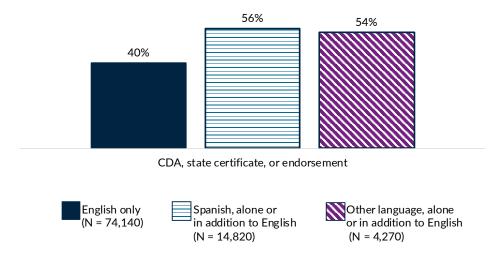
Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

**Figure 16.** Major in ECE/related fields among those with postsecondary coursework by language(s) spoken when working with children (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Data reflects major across all levels of educational attainment due to small cell sizes when examining each combination of degree and major individually (e.g., associate and ECE major; bachelor's and ECE major). Totals reflect the population of each language group for those with postsecondary coursework. Totals are rounded to the nearest 10.

**Figure 17.** CDA, certificate, or endorsement attainment by language(s) spoken when working with children (home-based workforce)

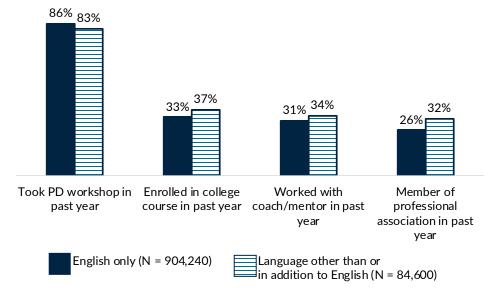


Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

# Center-based teachers' and caregivers' professional development and professional orientation

Among center-based teachers and caregivers, professional development participation rates were similar for those who spoke only English with children and those who spoke a language other than or in addition to English (see Figure 18).

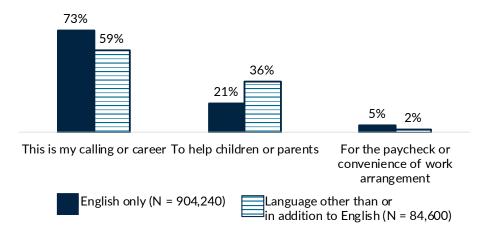
**Figure 18.** Professional development characteristics by language(s) spoken when working with children (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

As shown in Figure 19, proportionally more teachers and caregivers who spoke only English with children reported that ECE was their calling or career compared to those who spoke a language in addition to, or other than, English with children (73% compared to 59%). Proportionally more teachers who spoke a language in addition to, or other than, English reported working in ECE to help children and parents (36%) compared to those who spoke only English (21%).

**Figure 19.** Reasons for working with young children by language(s) spoken when working with children (center-based workforce)



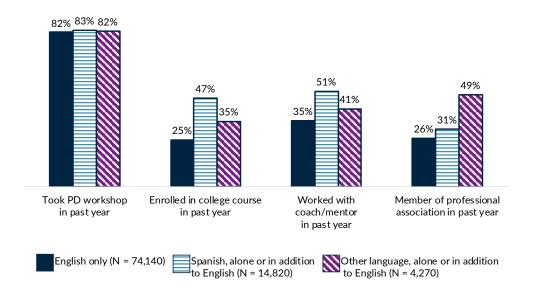
Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data.

Note. Reasons were mutually-exclusive categories. Totals reflect the population of each language group. Totals are rounded to the nearest 10.

### Home-based teacher professional development and motivation

As shown in Figure 20, professional development participation was high among home-based teachers and caregivers who spoke Spanish with children, with nearly 50 percent reporting enrollment in a college course and working with a coach or mentor. As shown in Figure 21, approximately half of home-based teachers who spoke only English with children reported that the ECE field was their calling or career; however, their participation in professional development was proportionally lower than those who spoke languages other than English with children. Home-based teachers and caregivers who spoke a language other than English or Spanish with children showed high participation in professional development activities and had the highest rates of professional association membership.

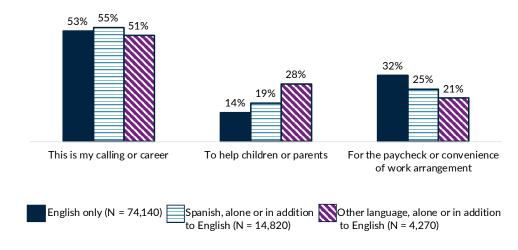
**Figure 20.** Professional development characteristics by languages spoken when working with children (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Totals reflect the population of each language group. Totals are rounded to the nearest 10.

As shown in Figure 21, approximately half of all home-based teachers and caregivers, regardless of language spoken when working with children, reported that the ECE field was their calling or career. However, the second most common motivation varied by languages spoken; those who spoke only English and those who spoke Spanish cited being motivated by the paycheck or convenience, and those who spoke a language other than English or Spanish cited the ability to help children and families.

**Figure 21.** Reasons for working with young children by language(s) spoken when working with children (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Reasons were mutually-exclusive categories. Totals reflect the population of each language group. Totals are rounded to the nearest 10.

# Conclusions on the professional characteristics of the ECE workforce by language(s) spoken

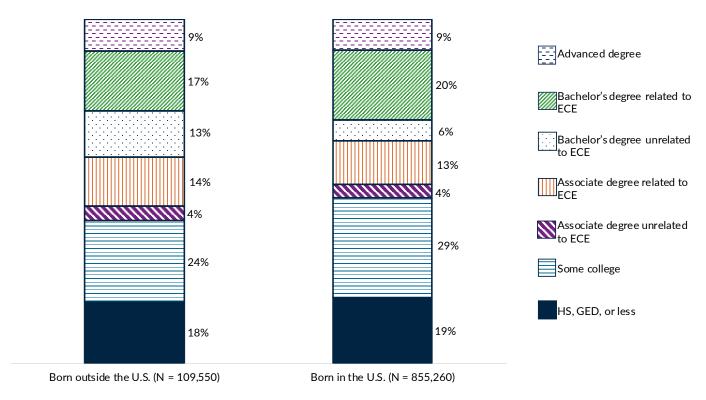
- Among center-based teachers and caregivers, those who spoke a language other than English with children had similar professional characteristics to those who spoke only English. However, they were less likely to report that working in the ECE field was their career, and more likely to report their motivation for caring for children was to help children and parents.
- Among home-based teachers and caregivers, those who spoke Spanish with children had similar
  education levels to those who spoke only English. However, those who spoke Spanish with children
  were more engaged in professional development opportunities compared to those who spoke
  another language or English only. Those who spoke a language other than English or Spanish
  with children had the highest levels of education; they showed modest levels of engagement
  in professional development opportunities and high rates of membership in a professional
  association.

# The Professional Characteristics of the ECE Workforce by Nativity Status

# Center-based teachers' and caregivers' education level and certification

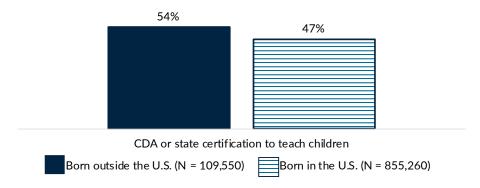
As shown in Figures 22 and 23, teachers and caregivers in center-based settings who were born outside the United States had similar levels of education compared to those born in the United States but were more likely to have a CDA or state certification to teach children.

Figure 22. Educational attainment by teacher nativity status (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Totals reflect the population of each group. Totals are rounded to the nearest 10.

**Figure 23.** Percentage of teachers and caregivers who have a CDA or attained a state certification to teach young children, special education, or elementary school by nativity status (center-based workforce)

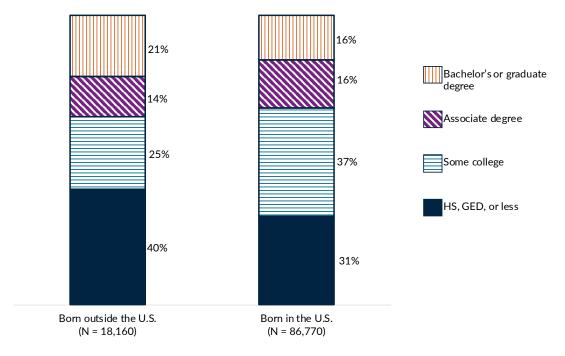


Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note*. Totals reflect the population of each group. Totals are rounded to the nearest 10.

## Home-based teachers' and caregivers' education level and certification

As shown in Figure 24, a higher proportion of home-based teachers and caregivers who were born outside the United States had education levels of high school or less. However, about one third of home-based teachers and caregivers born in and outside the United States held at least an associate degree.

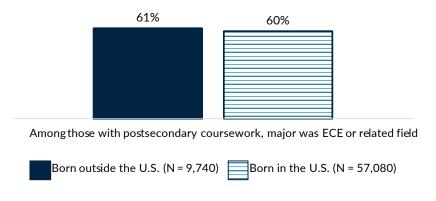
Figure 24. Educational attainment by nativity status (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Totals reflect the population of each group. Totals are rounded to the nearest 10.

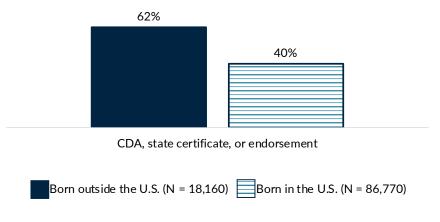
As shown in Figure 25, both teachers born in and outside the United States had similar rates of majoring in ECE or a related field. As shown in Figure 26, a higher proportion of home-based teachers and caregivers who were born outside the United States had a CDA, state certificate, or endorsement for education or care compared to teachers and caregivers who were born in the United States.

**Figure 25.** Major in ECE/related fields among those with postsecondary coursework by nativity status (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Data reflects major across all levels of educational attainment due to small cell sizes when examining each combination of degree and major individually (e.g., associate and ECE major; bachelor's and ECE major). Population totals reflect population of each nativity group among those with postsecondary coursework. Totals are rounded to the nearest 10.

Figure 26. CDA, certificate, or endorsement attainment by nativity status (home-based workforce)

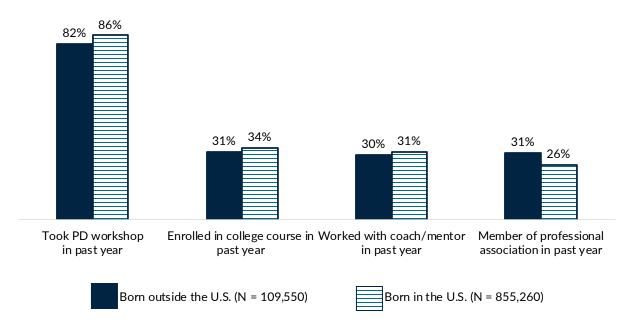


Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Data reflects major across all levels of educational attainment due to small cell sizes when examining each combination of degree and major individually (e.g., associate + ECE major; bachelor's + ECE major). Population totals reflect population of each group. Totals are rounded to the nearest 10.

# Center-based teachers' professional development and professional orientation

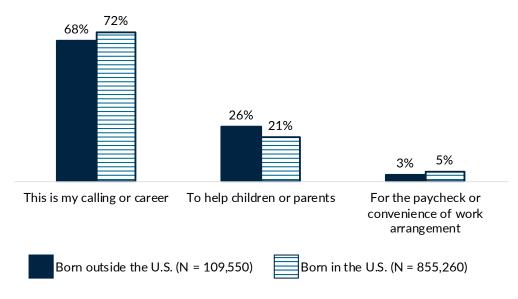
As shown in Figures 27 and 28, center-based teachers and caregivers who were born in and outside the United States. had similar levels of professional development engagement and similar motivations for working with children.

Figure 27. Professional development characteristics by nativity status (center-based workforce)



Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note*. Totals reflect the population of each group. Totals are rounded to the nearest 10.

Figure 28. Reasons for working with young children by nativity status (center-based workforce)

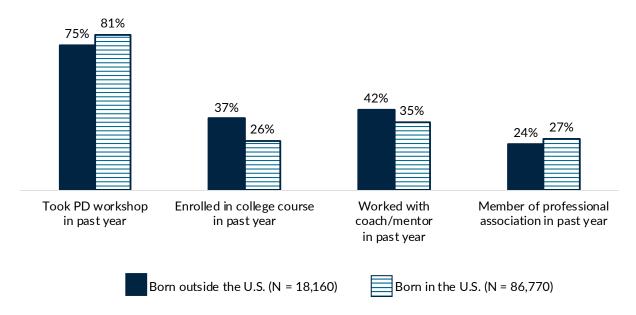


Source: Authors' analysis of the 2012 NSECE center-based workforce survey public use data. *Note.* Reasons were mutually-exclusive categories. Totals reflect the population of each group. Totals are rounded to the nearest 10.

# Home-based teachers' and caregivers' professional development and motivation

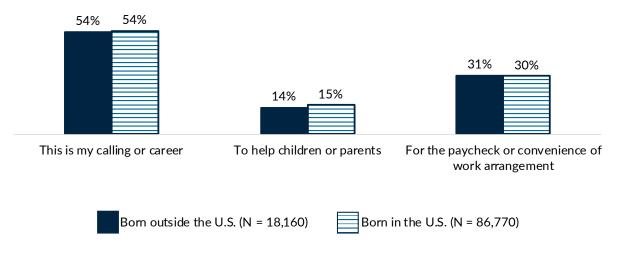
As shown in Figure 29, home-based teachers and caregivers who were born outside the United States were more likely to be enrolled in a college course and work with a coach or mentor than those who were born in the United States. As shown in Figure 30, home-based teachers and caregivers who were born both in and outside the United State had similar motivations for working with children.

Figure 29. Professional development characteristics by nativity status (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note*. Totals reflect the population of each group. Totals are rounded to the nearest 10.

Figure 30. Reasons for working with young children by nativity status (home-based workforce)



Source: Authors' analysis of the 2012 NSECE home-based provider survey public use data. *Note.* Reasons were mutually-exclusive categories. Totals reflect the population of each group. Totals are rounded to the nearest 10.

# Conclusions on the professional characteristics of the ECE workforce by nativity status

Center-based teachers and caregivers who were born outside the United States were
professionally similar to those born in the United States with one exception: A higher proportion
of center-based teachers who were born outside the United States had a CDA or state certification
to teach young children, special education, or elementary school compared to those born in the
United States (54% compared to 47%).

Compared to those born in the United States home-based teachers and caregivers who were born
outside the United States were more likely to have lower levels of educational attainment (high
school or less); however, they were more likely to enroll in a college course and work with a coach.
In addition, they were just as likely to see ECE as their calling or career compared to those who
were born in the United States.

### **Conclusions and Considerations**

ECE teachers and caregivers were demographically diverse and exhibited varying constellations of professional characteristics, some of which were distinct by race and ethnicity, languages spoken when working with children, and nativity status. We examined the workforce in different settings and roles, finding that Head Start was the center-based setting with the most demographically diverse staff. In addition, we examined three types of professional characteristics: education level, professional development, and motivations for working in the ECE field.

In terms of educational attainment, center-based teachers and caregivers who identified as Hispanic or non-Hispanic Black and/or who spoke a non-English language with children were more likely to have a CDA, state certificate, or an educational endorsement, and were less likely to have a bachelor's degree compared to teachers and caregivers who were non-Hispanic White and/or only spoke English with children. Teachers and caregivers in center-based settings who were born outside the United States had similar levels of education to those born in the United States, but those in homebased settings had lower levels of education, with 40 percent reporting an education level of high school, GED, or less. Overall, findings indicated that the ECE workforce, regardless of demographic characteristics, was diverse in educational attainment and focus on early childhood as a field of study; however, the educational pathways for the workforce seem systematically different for teachers and caregivers of varying racial, ethnic, linguistic, and nativity backgrounds. Higher proportions of workforce members of color, who spoke a language other than English with children, and/or who were born outside the United States—compared to those who identified as non-Hispanic White, who spoke only English with children, and/or who were born in the United States— have education levels below bachelor's degrees and have higher rates of ECE as a major or focus of study through CDA, state certifications, or associate degree programs. Research indicates that holding a bachelor's degree is not consistently associated with higher quality in ECE settings and that holding an associate's degree may have a more robust association with quality indicators (Epstein et al., 2016; Madill et al., 2015). These patterns for attainment of degrees and certifications likely reflect both historic and persistent barriers many people of color face with regard to education (Murtadha & Watts, 2005; Watkins, Lewis, & Chou, 2001) Although the descriptive and point-in-time nature of the current report cannot address the origins of the current state of the ECE workforce, future work should attempt to examine patterns in educational attainment and professional qualifications among the ECE workforce using longitudinal and multivariate models to portray a more nuanced understanding of ECE workforce diversity. These findings also underscore the need for further research on the pathways for obtaining qualifications to work in ECE programs for teachers from different racial, ethnic, and linguistic backgrounds.

In terms of professional development, teachers and caregivers who identified as Hispanic or non-Hispanic Black and/or who spoke a language other than English with children, were engaged in more professional development opportunities than non-Hispanic White teachers and caregivers and those who spoke only English with children, including taking a college course, working with a coach/mentor, and being a member of a professional organization. These patterns were consistent across both the center-based and home-based workforces. Among the home-based workforce, specifically, Hispanic teachers and caregivers were more likely to hold a state certificate as opposed to an associate or bachelor's degree compared to non-Hispanic White, non-Hispanic Black, or non-Hispanic Asian, AIAN, NHPI, or Other teachers and caregivers. Hispanic home-based caregivers demonstrated high levels of engagement in professional development and their engagement in professional development activities mirrored the engagement seen among home-based teachers and caregivers who spoke Spanish with children. There is significant overlap in these populations: The majority of ECE teachers

and caregivers who speak a language other than English are born outside the United States, and the majority of teachers and caregivers who were born outside the United States and spoke a language other than English were non-White or Hispanic. Similar to the discussion of educational attainment and professional qualifications noted above, there is a need for multivariate analyses of the patterns identified in this descriptive report to more fully understand the associations between the pursuit of professional development opportunities and the demographic characteristics of the ECE workforce. For example, it is important to disentangle the confounding of race with socioeconomic status on outcomes of interest (Bradley & Renzulli, 2011; LaVeist, 2005; VanderWeele & Robinson, 2014). In addition, there is a need for research to understand if professional development is more often tailored to teachers and caregivers without bachelor's degrees in ECE, and whether teachers and caregivers who identify as people of color and/or Hispanic or who speak languages other than English see some forms of professional development as more accessible than others – or as preferable to obtaining more advanced educational degrees.

Differences in professional motivation also emerged among the center-based and home-based workforces, by race and ethnicity and languages spoken. Nearly three quarters of center-based teachers and caregivers who identified as non-Hispanic White and spoke only English with children reported the ECE field as their calling and career, a rate higher than most of those who identified as a person of color and who spoke a language other than English with children. Only half of home-based teachers and caregivers who identified as non-Hispanic White and spoke only English with children reported working in the ECE field as their career or calling, and one third reported that they chose child care as a career because of the paycheck or the convenience, a rate higher than those from other racial, ethnic, and linguistic backgrounds. In contrast, 58 percent of home-based teachers and caregivers who identified as non-Hispanic Black reported the ECE field as their career or calling, while only 11 percent reported they worked in ECE for the paycheck or convenience of the work arrangement. Teachers and caregivers in both center-based and home-based settings who spoke a language other than English with children were more likely to report that they chose child care as a career to help children and parents compared to teachers and caregivers who spoke English only with children.

Head Start was the center-based setting with the highest proportion of teachers and caregivers who were non-Hispanic Black and who spoke a language other than English with children, which may have contributed to the higher rates of credentialing and professional development participation among these teachers and caregivers. We examined this directly by analyzing professional development characteristics by both program sponsor and demographic characteristics, finding that sponsorship does indeed play a role in the differentiation of professional development by demographic characteristics. Specifically, teachers and caregivers who identified as non-Hispanic Black had higher rates of education and professional development participation in Head Start-sponsored settings, while Hispanic, non-English-only speaking and/or those born outside the United States in school-sponsored settings had the highest rates of certification and professional development participation (analysis presented in Appendix A). In contrast, community-based programs, which included those that were not sponsored by school districts and did not receive funding from public pre-K programs or Head Start, had the least diverse teaching staff in this nationally representative sample. They also had the lowest rates of certification and professional development participation. Findings may be attributable to center-based community-based programs having to meet lower standards for education and professional development than local, state, or federally sponsored ECE settings, or may provide less support for participating in professional development (e.g., paid time off, scholarships).

It is important to interpret our findings while considering a few key caveats and limitations. First, our sample of home-based teachers and caregivers was limited to those who provided non-relationship-based care; it is possible to examine other groups of home-based teachers and caregivers. Second, it is possible to define 'languages spoken' by teachers and caregivers in different ways. A similar report by the Center for the Study of Child Care Employment (CSCCE, 2018) that also used the NSECE developed both a different sample of home-based teachers and caregivers and different definition of

<sup>&</sup>lt;sup>10</sup> Authors' analysis of the 2012 National Survey of Early Care and Education.

languages spoken, resulting in slight differences in their estimates of racial and ethnic and linguistic diversity among the home-based workforce.

Third, our findings are limited to the available variables in the 2012 dataset. For instance, there are other aspects to professional development, including quantity of trainings or coaching, that is not available in the NSECE. Additional differences or similarities among the workforce by race and ethnicity, languages spoken, or nativity status may emerge when considering the quantity and quality of professional development. In addition, as noted earlier, our analyses do not account for the systematic barriers that may contribute to differences by race in education levels or professional development involvement among members of the workforce (Watkins, Lewis & Chou, 2001).

Fourth, although the NSECE 2012 is, overall, representative of ECE teachers and caregivers in the United States in 2012, the sample sizes of the teachers and caregivers who identified as non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race, and/or those who spoke a language other than English or Spanish, are limited. The need to combine these disparate groups into a single category for race and language, respectively, due to sample size, likely masks important variability within and across these different cultural and linguistic groups. Consequently, the findings may not accurately reflect the larger population of these teachers and caregivers. To further confirm the data, future studies should replicate this analysis with larger sample sizes of understudied demographic groups and disaggregate racial and linguistic groups as possible. In addition, teachers and caregivers who were born outside the United States, who identified as a person of color, as well as those who spoke a language other than English with children, are each a diverse group in their own right, representing a multitude of racial and ethnic, linguistic, geographic, and cultural backgrounds. Although combined here due to sample size, each unique subgroup may have distinct ECE professional characteristics and may require specific supports to promote their professional development. Finally, it is important to recognize that there is heterogeneity within all categories of demographic groupings, not just those that collapse across smaller, distinct categories. The NSECE is a rich dataset for understanding ECE characteristics at the national level. The findings regarding the demographic diversity of the workforce and different levels of engagement in professional development and education reported here can be further explored in state-level studies to understand regional differences in the characteristics of the ECE workforce.

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### **Appendix A**

**Table A.** Percentage of teachers and caregivers who endorsed each professional development characteristic by sponsor/funding and diversity characteristic

	School- sponsored	Head Start- funded	Public pre- K-funded	Community based program
CDA or state certification to teach children				
Non-Hispanic White	67%	52%	48%	40%
Non-Hispanic Black	48%	67%	51%	48%
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	68%	61%	52%	36%
Hispanic	68%	70%	68%	46%
English only	62%	59%	51%	41%
Non-English-only	80%	67%	72%	53%
Born outside the United States	76%	68%	69%	38%
Born in the United States	64%	60%	49%	42%
Took professional development workshop in past year				
Non-Hispanic White	92%	95%	86%	84%
Non-Hispanic Black	96%	95%	89%	81%
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	79%	94%	86%	83%
Hispanic	82%	80%	84%	80%
English only	91%	94%	86%	83%
Non-English-only	88%	79%	89%	81%
Born outside the United States	84%	74%	90%	80%
Born in the United States	91%	94%	86%	83%
Enrolled in college course in past year				
Non-Hispanic White	32%	39%	33%	28%
Non-Hispanic Black	47%	55%	38%	32%
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	16%	58%	41%	33%
Hispanic	43%	52%	32%	32%
English only	35%	46%	34%	30%
Non-English-only	38%	50%	38%	28%
Born outside the United States	31%	47%	37%	24%
Born in the United States	36%	47%	33%	30%

	School- sponsored	Head Start- funded	Public pre- K-funded	Community based program
Worked with coach/mentor in past year				
Non-Hispanic White	53%	44%	29%	27%
Non-Hispanic Black	68%	41%	26%	30%
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	57%	26%	22%	33%
Hispanic	60%	35%	41%	16%
English only	57%	41%	29%	27%
Non-English-only	46%	40%	40%	24%
Born outside the United States	62%	39%	44%	17%
Born in the United States	55%	42%	28%	28%
Member of a professional association in past year				
Non-Hispanic White	24%	36%	26%	22%
Non-Hispanic Black	35%	60%	23%	27%
Non-Hispanic Asian, AIAN, NHPI, Other or Multi-Race*	19%	37%	31%	28%
Hispanic	38%	29%	23%	20%
English only	26%	43%	24%	22%
Non-English-only	41%	32%	34%	30%
Born outside the United States	45%	45%	34%	23%
Born in the United States	26%	41%	23%	23%

<sup>\*</sup> This category of non-Hispanic race includes anyone self-identifying as Asian, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Other or Multi-Race.

### **Appendix B**

### **Coding of Language Categories**

Questions about languages spoken with children by providers varied across the different surveys in the NSECE. Here, we describe how the various response categories were collapsed for analysis and comparisons in this research report.

Center-based providers were asked, "What languages are spoken by your staff when working directly with children?" Similarly, home-based providers with a total enrollment greater than 4 children were asked, "What languages do you speak when working directly with children?" In both cases, the survey allowed respondents to select all that apply for "English," "Spanish," and "Other." If "Other" was selected, the respondent was prompted to specify (up to 7 other languages for the center-based survey and up to 3 other languages for the home-based survey). Though respondents could provide this further detail, the variables available in the public-use dataset collapsed responses into broad categories to protect against disclosure. In the center-based provider survey, the public use response variables for languages spoken with children were: 1. English only, 2. English and Spanish, 3. Spanish only, 4. Other.

In the home-based provider survey, the public use response variables for languages spoken with children were non-exclusive and included: 1. Provider usually speaks Spanish with children, 2. Provider usually speaks English with children, 3. Provider speaks language other than English or Spanish with children. In order to have comparable data across settings for analyses in this report, the authors further collapsed into the two categories noted in Table 1: English only, and a non-English language (in addition to, or other than, English). This two-level variable was used for analyses of center-based providers only, as well. However, for analyses of home-based providers only, the authors capitalized on the greater variability among the home-based providers' languages and adequate sample sizes to use a three-level variable: English only; Spanish, alone or in addition to English; and other language, alone or in addition to English. See Figures 15-17 and Figures 20 and 21.