

California Early Care and Education Workforce Study

Licensed Child Care Centers
San Francisco County 2006

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Acknowledgments

This study was made possible through the generous support of First 5 California and First 5 San Francisco County. The authors also gratefully acknowledge the David and Lucile Packard Foundation for their support of an initial pilot study on which this study was based. Finally, we would like to thank the many child care center directors of San Francisco County who gave so generously of their time to take part in this study.

Suggested citation

Whitebook, M., Sakai, L., Kipnis, F., Lee, Y., Bellm, D., Almaraz, M., & Tran, P. (2006). *California Early Care and Education Workforce Study: Licensed child care centers. San Francisco County 2006*. Berkeley, CA: Center for the Study of Child Care Employment, and San Francisco, CA: California Child Care Resource and Referral Network.

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Introduction

Reflecting the growth in the number of working families with young children and the importance of early learning, the U.S. has witnessed an explosion of early care and education services in centers and homes over the last 30 years. What was once a relatively small, unnoticed sector of the economy is now viewed as a growing industry with substantial economic impact in terms of widespread use, consumer and public spending, and job creation (National Economic Development and Law Center, 2001). At the same time, researchers in cognitive science, psychology and education, among others, have expanded our understanding of the developmental significance of the early years, underscoring the importance of high-quality early learning settings to ensure that children realize their potential (Shonkoff & Phillips, 2000).

Evidence that the quality of early care and education settings can and does influence children's development during and beyond the preschool years (Gormley, Gayer, Phillips & Dawson, 2004; Henry, Gordon, Henderson & Ponder, 2003; Reynolds, Temple, Robertson & Mann, 2001; Schulman, 2005; Schulman & Barnett, 2005; Schweinhart et al., 2005) has increasingly shifted attention to the early care and education workforce, and the extent to which those who care for young children are adequately prepared to facilitate their learning and well-being.

Creating a skilled and stable early care and education workforce, however, has emerged as a daunting challenge. Reflecting a shortage of resources throughout the industry, employment in the field is characterized by exceptionally low pay, leading to high turnover that, in turn, undermines program quality and children's development (Helburn, 1995;

Whitebook, Howes & Phillips, 1998; Whitebook, Sakai, Gerber & Howes, 2001).

High turnover, coupled with the expansion of services, has led to a high demand for personnel in the field, and has also contributed to maintaining relatively low requirements for working with young children. As a result, employment qualifications in the field do not tend to match the level of skills and understanding truly needed to meet the demands of this work. This gap between professional challenges and regulatory requirements is further exacerbated by changes in the child population – notably the increasing numbers of children from immigrant families who are dual language learners, and the growing numbers of children identified as having special developmental needs. Many students of early childhood education still do not receive training related to serving such children (Whitebook, Bellm, Lee & Sakai, 2005).

The recognition that the workforce is the backbone upon which early care and education services depend has underscored many of the activities undertaken by First 5 commissions at the state and local level. Since the program's inception in 2000, for example, California has spent over \$240 million on the state- and county-level effort known as CARES, which has awarded stipends to over 40,000 ECE practitioners for pursuing further training and education. Increasing attention is also turning to institutions of higher education to assess the resources they will need, in order to adapt their programs and to support students in meeting more rigorous standards for working with young children (Whitebook, Bellm, Lee & Sakai,

2005).

This report is intended to identify the characteristics of San Francisco County's current center-based early care and education workforce, both in light of proposed new requirements, and to help assess the size of the task of training the next generation of workers to care for young children.

Licensed Child Care Centers in California

In California, child care provided outside of a home environment is called a child care center. A child care center is usually located in a commercial building, school or church. In a child care center, non-medical care and supervision can be provided for infants (birth to 23 months), preschoolers (two to five years) and school-age children (kindergarten students and older) in a group setting for periods of less than 24 hours.

Almost all child care centers are required to be licensed by the Community Care Licensing Division (CCLD) of the California Department of Social Services. Centers that are exempt from licensing include certain school-age and preschool programs run by Park and Recreation Departments and school districts; informal arrangements in which no money changes hands for care, such as co-ops and play groups; on-site military child care programs; and programs administered by the Department of Corrections.

To receive a license, child care centers must meet the requirements established in the Code of California Regulations Title 22 related to personnel, the facility, and the number and ages of children served.¹

Personnel requirements include the following:

- Child care centers must have qualified directors and qualified teaching staff. Directors and teachers must have 12 units in early childhood education. To be a qualified infant teacher, at least three of the units must be related to the care of infants. Directors must have

three units in administration or staff relations.

- Employees must have a fingerprint clearance from the California Department of Justice and the Federal Bureau of Investigation, and have a Child Abuse Index Clearance.
- All staff must have a TB clearance and a health report.
- At least one person on-site must have 15 hours of health and safety training approved by the Emergency Medical Services Authority. This includes a current CPR and First Aid Certificate.

Requirements for a child care facility include the following:

- 35 square feet of indoor play space per child, 75 square feet of outdoor space per child, and one toilet and one sink for every 15 children.
- Compliance with CCLD health and safety requirements pertaining to storage space, equipment and materials, drinking water, food preparation, storage of dangerous materials, adult/staff restrooms, isolation areas for sick children, and facility temperature.
- Compliance with all other state, federal, and/or local codes and regulations such as zoning, building restrictions, fire, sanitation, and labor requirements.

Number and ages of children served:

- The total number of children who can be served in a facility is called the licensed capacity of the center. The licensed capacity is based on the physical space of a site (as described above) and the number of staff

¹ For more information about child care center licensing see: <http://cclld.ca.gov>.

- available to provide care.
- CCLD issues separate licenses for the different ages of children that can be served: infants, preschoolers, and school-age children. Each age group requires a specific ratio of children to adults:

Infants:	1 adult to 4 children
Preschoolers:	1 adult to 12 children
School-age children:	1 adult to 14 children

Additional regulations for child care centers:

In addition to the Title 22 regulations described above, centers contracted with the California Department of Education (CDE) must meet the regulations set by Title 5 of the California Code of Regulations. Head Start centers are also required to meet additional regulations established by the federal Head Start Bureau. Table 1.1 below compares the

educational levels for child care center staff required by Titles 5 and 22. Head Start educational requirements are not included in the chart, as the Head Start staffing structure is unique to that program. Fifty percent of all Head Start teachers nationwide in center-based programs, however, are required to have an AA, BA or advanced degree in early childhood education, or an AA, BA or advanced degree in a field related to early childhood education, in addition to experience teaching preschool children.

According to the 2005 *California Child Care Portfolio*, there were 10,143 child care centers with 639,443 child care spaces (commonly referred to as “slots”) in the state in 2004. Six percent of these slots were licensed for infants, 70 percent for preschoolers and 24 percent for school-age children. Child care centers made up 64 percent of all licensed child care spaces, with family child care homes comprising 36 percent of the capacity (California Child Care Resource and Referral Network, 2005).

Table 1.1. *Comparison of Title 22 and Title 5 Regulations for Child Care Center Staff*

Position	Title 22	Title 5 (CDE-contracted centers)
Assistant teacher	None	6 units of college-level Child Development (CD)/ Early Care and Education (ECE)
Associate teacher	Not specified	12 units of college-level CD/ECE
Teacher	12 units of college-level CD/ECE 6 months experience	24 units of college-level CD/ECE 16 units of General Education (GE)
Site supervisor	Not specified	AA or 60 units including: 24 units of CD/ECE 16 units GE 8 units administration
Program director	12 units of college-level CD/ECE 3 units administration	BA or higher including: 24 units of CD/ECE 8 units of administration

San Francisco County

The social and cultural heart of the Bay Area, San Francisco has the distinction of being both a city and a county.

Key sectors of the economy include information, professional, and technical services, and financial, insurance, and real estate transactions.

In 2004, San Francisco's population of 792,700 represented a 2.1-percent increase over the 2000 Census (US Census Bureau, 2000a). The county is projected to increase in population by 4.5 percent between 2000 and 2010, with a 46.6-percent increase in the number of children ages 0-4 (California Department of Finance, 2004).

Population estimates for 2005 describe the county as 44.4 percent White, Non-Hispanic; 31.5 percent Asian; 14.5 percent Hispanic; 6.8 percent Black; 2.4 percent Multiethnic; and 0.4 percent Pacific Islander or American Indian (California Department of Finance, 2005). At the time of the 2000 Census, over 58.2 percent of county households were estimated as speaking English, 10.3 percent Spanish, and 21.6 percent an Asian or Pacific Island language (US Census Bureau, 2000b).

Several demographic measures, as well as summary statistics concerning

economic well being, suggest the breadth of need for early care and education in San Francisco County:

- Median family income in 1999 was \$63,545 (California Department of Finance, 2003).
- In 1999, 11.3 percent of residents had incomes below the poverty level (California Department of Finance, 2003).
- These figures disguise families' economic stress, which increasingly is driven by high housing costs. The county's 2005 annual fair market rent for a two-bedroom unit was \$18,468 (US Department of Housing and Urban Development, 2005).
- At the time of the 2000 Census, 13.0 percent of children 0-5 years of age lived in poverty² (California Child Care Resource and Referral Network, 2003).
- In 2000, 88,033 children under the age of 14 resided in the county, 55.2 percent of whom had both parents or a single head of household in the labor force³ (California Child Care Resource and Referral Network, 2003).
- Among those children were 37,890 children under age six, 51.7 percent of whom had working parents⁴ (California Child Care Resource and Referral Network, 2003).
- 18.3 percent of children ages 0-5

² Data derived from 2000 U.S. Census (universe: population for whom poverty status is determined). Poverty threshold varies by family size and composition. For a family of four, two adults and two children under 18, the 1999 poverty threshold used for the 2000 Census was \$16,895.

³ Data derived from 2000 U.S. Census (custom tabulation). Number of children with either both parents or a single-head-of-household in the labor force (universe: own children in families and subfamilies).

⁴ Data derived from 2000 U.S. Census (custom tabulation). Number of children with either both parents or a single-head-of-household in the labor force (universe: own children in families and subfamilies).

resided in a single-parent household⁵ (California Child Care Resource and Referral Network, 2003).

In 2004, 22,150 licensed child care slots were available in San Francisco County, 24.2 percent of which were in family child care homes, and 75.8 percent in child care centers (California Child Care Resource and Referral Network, 2005).

⁵ Data derived from 2000 U.S. Census (universe: own children).

Purpose of the Study

Recognizing the critical role that early childhood educators play in the lives of California's children and families, First 5 California commissioned in 2004 a statewide and regional study of the early care and education (ECE) workforce in licensed child care centers and licensed family child care homes. The overall goal of the study was to collect information on the current characteristics of this workforce – particularly its educational background, and its potential need and demand for further opportunities for professional development.

The statewide study sample included centers from every county in the state, but there were not sufficient numbers of centers in the sample to generate county-specific reports. Counties were invited, however, to contract for additional local interviews in order to build a representative county sample, and First 5 San Francisco County was one of nine county organizations that agreed to commission a local study of its early care and education workforce, building on the statewide study. An identical procedure was used for statewide and county data collection, although the statewide study interviews were conducted earlier in 2005.

The following description applies to the sample and response rate for the San Francisco County-commissioned component of the study. For information about the statewide completion and response rate, see the statewide *California Early Care and Education Workforce Study* report at <http://www.cafc.ca.gov>.

In partnership, the Center for the Study of Child Care Employment (CSCCE) at the University of California at Berkeley,

and the California Child Care Resource and Referral Network (Network), have gathered this information to help San Francisco County policy makers and planners assess current demand at teacher training institutions; plan for further investments in early childhood teacher preparation; and gain a baseline for measuring progress toward attaining a well-educated ECE workforce whose ethnic and linguistic diversity reflects that of San Francisco County's children and families.

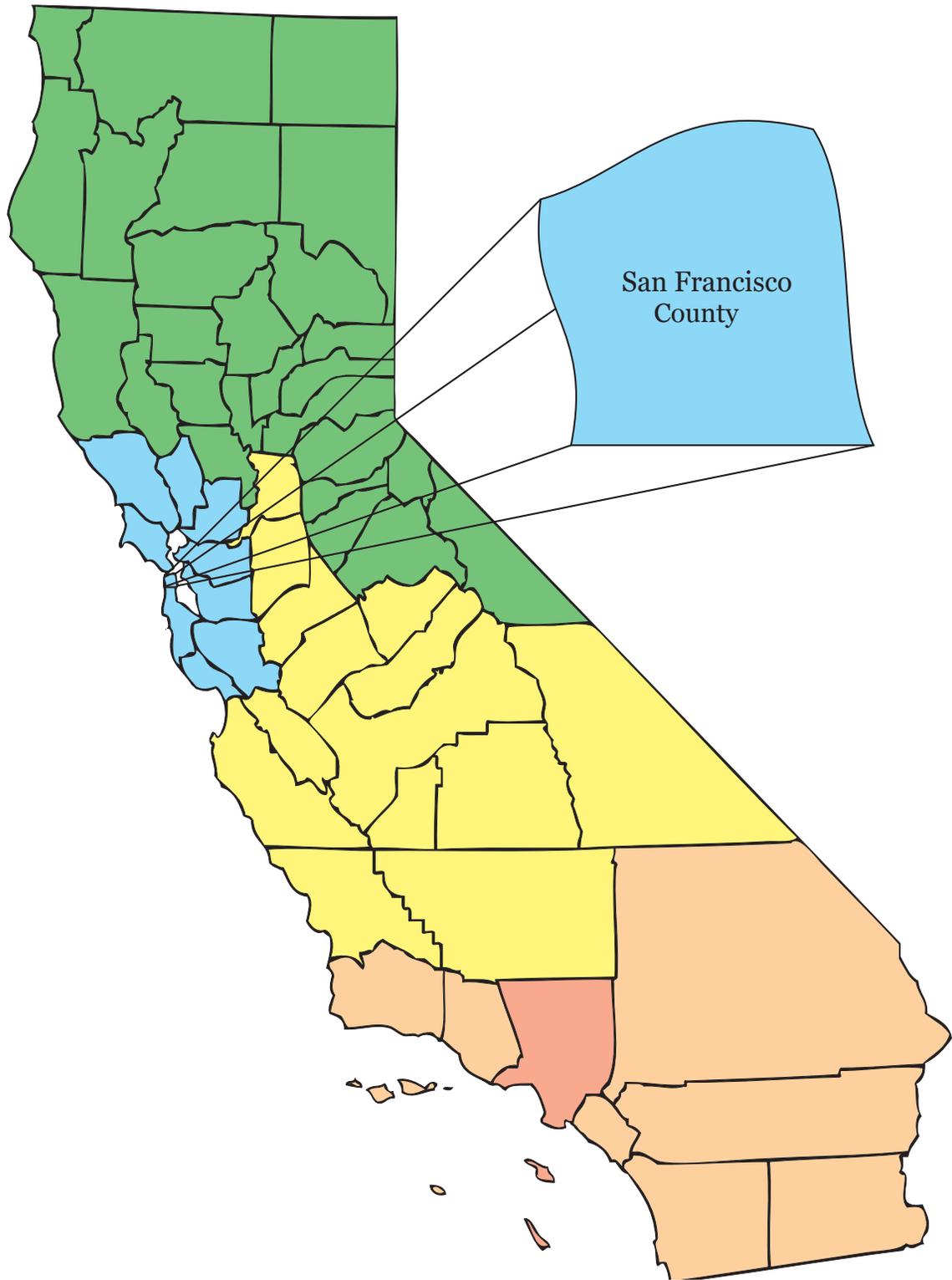
The present report contains the study's findings for licensed child care centers that have infant and/or preschool licenses. Some of these centers have school-age licenses as well. This study, however, does not include data for centers that have a license to serve school-age children only.

A separate report containing information about licensed family child care homes in San Francisco County can be found at the First 5 California website, <http://www.cafc.ca.gov>.

In studying the county's population of licensed child care centers, our primary objectives were to:

- Compile baseline data on the demographics, wages, tenure, and educational characteristics of child care center directors, teachers and assistant teachers;
- Identify the extent to which their educational backgrounds vary with respect to ethnicity, language and age;
- Profile the business and program characteristics of centers, including organizational status and participation in various subsidy programs;
- Profile the children that staff with varying characteristics serve, in terms

- of numbers, ages, subsidy status, and special needs;
- Document the professional preparation of licensed child care center staff to work with children who are dual language learners and/or have special needs;
 - Develop a sound estimate of the number of assistant teachers, teachers and directors in licensed child care centers; and
 - Identify differences among licensed child care center staff, along the dimensions noted above, between centers with and without public subsidies, and between centers serving and not serving infants.



Study Design

Survey Population and Study Sample

First 5 San Francisco County sought countywide information about directors, teachers and assistant teachers employed at licensed child care centers in San Francisco County. The survey population included all 255 licensed child care centers serving infants and/or preschoolers that were listed as of January 2004 with the county’s two state-funded child care resource and referral (R&R) agencies: the Children’s Council of San Francisco and Wu Yee Children’s Services. These data were aggregated, cleaned and verified by the California Child Care Resource and Referral Network (Network) and updated in August 2005. Centers licensed to serve only school-age children were not included in the survey population.

Because of the relatively small number of child care centers, we attempted to interview directors at all the centers. The final number of 114 completed interviews included 28 interviews conducted in San Francisco County as part of the statewide study and 86 interviews conducted during the county study. (See Table 2.1.)

Survey Instrument

The Child Care Center Survey used in this study was the same questionnaire used in the statewide study. It built upon numerous workforce studies conducted by the Center for the Child Care Workforce

over the last three decades (Center for the Child Care Workforce, 2001). Specifically, the survey instrument was adapted from the 2001 California Child Care Workforce Study, an eight-county effort funded by the David and Lucile Packard Foundation as a pilot for this statewide survey (Whitebook, Kipnis, Sakai, Voisin, & Young, 2002).

Certain changes were made to the 2001 survey to capture specific information requested by First 5 California to assist in its workforce development planning related to the expansion of preschool programs in California. Prior to data collection, the survey instrument and data collection procedures were approved by the Committee for the Protection of Human Subjects at the University of California at Berkeley, and were then pre-tested in the field.

Telephone interviews were conducted in English with directors of child care centers. The directors answered questions about themselves and about their teaching staff. Less than one percent of eligible centers (0.5 percent) were unable to complete the interview because of a communication barrier.

For the three groups of child care center staff – directors, teachers and assistant teachers – the questions in the survey addressed:

- *Demographics:* age, ethnicity, and

Table 2.1. San Francisco County Sample Composition

	San Francisco County licensed centers	Percentage of final sample
Completed interviews: statewide study	28	24.6%
Completed interviews: county study	86	75.4%
Final sample	114	100.0%

languages spoken in addition to English;

- *Levels of education and training:* highest level of education; type of degree, if any; college credit related to Early Childhood Education; credit and non-credit training related to children with special needs and English language learners; permits and credentials; and participation in SF CARES;
- *Employee characteristics:* staff wages, tenure, and turnover; and
- *Business and program characteristics:* number and ages of children served, including children with special needs; participation in government subsidy programs; public contracts with the California Department of Education or Head Start; and organizational status, including private for-profit, private nonprofit, or public.

Data Collection Procedures

The Network mailed a notification letter, describing the purpose of the survey and encouraging participation, to all the centers in the survey universe. The letter was signed by representatives of First 5 California, the Center for the Study of Child Care Employment (CSCCE) and the Network. In addition to the letter, directors received an Interview Worksheet, outlining the survey questions, to help them prepare for the telephone interview. Centers were informed that they would receive a copy of the latest version of First 5's Kit for New Parents as an incentive for completing the interview.

Field Research Corporation, Inc. (FRC), a professional public opinion research firm, conducted the interviews using computer-assisted telephone

interviewing (CATI). During the CATI process, the interviewer reads the survey question from a computer screen and enters the survey data directly into the computer. This promotes uniformity of interview technique as well as accuracy and consistency during data input. FRC completed 86 interviews between September 12 and October 14, 2005.

Center directors were contacted during the work day, and whenever they requested it, were called back at an appointed time, including in the evening or during the weekend, to complete the interview. Interviews took an average of 20 minutes to complete. FRC made up to eight attempts to complete an interview with each center director.

Survey Completion and Response Rate

The Network provided FRC with contact information for 255 centers in the survey population. Because some of these centers either had completed an interview or had been coded ineligible for some reason during the statewide survey, FRC released 205 infant and/or preschool centers for the county survey. As anticipated, we were unable to interview all the centers in the released sample.

Of the 205 center contacts, 8.8 percent were determined to be ineligible, either because they were out of business or were presumed to be, due to the nature of the unresolved phone number. (See Table 2.2.) Among those eligible, 46.0 percent completed the survey. To increase the likelihood of interviewing as many directors as possible, the Network attempted to correct all incorrect phone numbers and contact all directors with answering machines or voice mails to

Table 2.2. Survey Response Rate of County Sample

	San Francisco County number of centers	Percentage of sample	Percentage of eligible
Sample released and dialed	205	100.0%	
Ineligible: out of business	7	3.4%	
Presumed ineligible*	11	5.4%	
Eligible	187	91.2%	100.0%
County surveys completed	86	42.0%	46.0%
No response, presumed eligible**	39	19.0%	20.9%
Refusals	20	9.8%	10.7%
Multi-site refusals***	5	2.4%	2.7%
Respondent not available	34	16.6%	18.2%
Communication barrier	1	0.5%	0.5%
Other reasons for non-completion	2	1.0%	1.1%

* Disconnected, wrong number, changed phone number, or no answer.

** Answering machine, voice mail, or busy signal.

*** Answered for some centers in multi-site agency but not all.

Table 2.3. Comparison of Survey Respondents and County Population of Centers, by Communities Served and by Regulation

	County Population (N=255)	Survey Completed (N=114)
REGULATION		
Licensed for infants	14.1%	14.9%
CDE/Head Start contract	45.5%	43.0%
Zip Code		
94102	6.7%	7.9%
94103	3.9%	4.4%
94104	0.4%	0.0%
94105	2.0%	2.6%
94107	3.1%	3.5%
94108	2.4%	2.6%
94109	1.6%	1.8%
94110	10.2%	7.0%
94112	3.5%	5.3%
94114	3.1%	4.4%
94115	9.4%	6.1%
94116	4.7%	7.0%
94117	2.4%	1.8%
94118	7.1%	7.0%
94121	5.5%	7.9%
94122	6.7%	4.4%

Table 2.3. Comparison of Survey Respondents and County Population of Centers, by Communities Served and by Regulation

94123	1.6%	0.9%
94124	5.1%	4.4%
94127	2.8%	2.6%
94129	1.2%	2.6%
94131	1.6%	1.8%
94132	3.1%	4.4%
94133	5.1%	5.3%
94134	6.7%	3.5%
94143	0.4%	0.9%
Total	100.0%	100.0%

encourage them to participate in the study.

The reasons for not completing a survey among eligible centers included:

- 20.9 percent: Answering machine, voice mail or busy signal prevented successful contact;
- 10.7 percent: Refusal;
- 2.7 percent: Multi-center refusals, in which a director managing multiple sites refused to complete an interview for the particular center, but did complete interviews for other centers;
- 18.2 percent: Respondent not available to complete the survey during the study period;
- 0.5 percent: Communication barriers we were unable to surmount;
- 1.1 percent: Some other reason.

While we were unable to assess whether the centers that participated in the study differed from those that did not participate with respect to all the variables of interest in the study, we compared the county center population to the centers that completed interviews along three important variables. We calculated the extent to which centers participating in

our study represented the county overall in terms of 1) geographical distribution, 2) contract status with Head Start or the California Department of Education, and 3) licensed capacity to serve infants. As shown in Table 2.3, our survey closely approximates the geographical distribution of centers, the percentage of centers with contracts, and the percentage of centers with a license to serve infants.

Findings

Who are the teachers, assistant teachers and directors in San Francisco County's licensed child care centers?

In San Francisco County, a teacher in a child care center licensed to serve infants and/or preschoolers is equally likely to be White, Non-Hispanic or Asian/Pacific Islander. Assistant teachers are more diverse than directors and teachers, although all levels of staff closely reflect the ethnic distribution of children ages birth to five in the county. Child care teachers and assistant teachers are more ethnically diverse than K-12 teachers. Compared to women in San Francisco County, assistant teachers are more likely to be under age 30 and less likely to be over age 50. About one-half of teachers and directors, and two-thirds of assistant teachers, are able to speak a language other than English fluently, most typically Spanish or Chinese.

These demographic profiles vary, however, by such center characteristics as age group of children served. For example, centers holding a contract with Head Start or CDE that employ at least one teacher able to speak a language other than English employ more such teachers than centers that receive vouchers.

About two-fifths of teachers and one-third of assistant teachers have worked in their present jobs for five years or less, while more than one-half of directors have done so. The highest-paid teachers with a BA earn, on average, \$19.23 an hour. The highest-paid assistants can expect to earn \$12.47 an hour, on average.

Age

Directors were asked to report the age range of teachers and assistant teachers; we did not collect data on the age of directors for this study. Compared to women⁶ in San Francisco County (14.5 percent), teachers (24.5 percent) and assistant teachers (34.9 percent) were more likely to be younger than 30. (See Figure 3.1.)

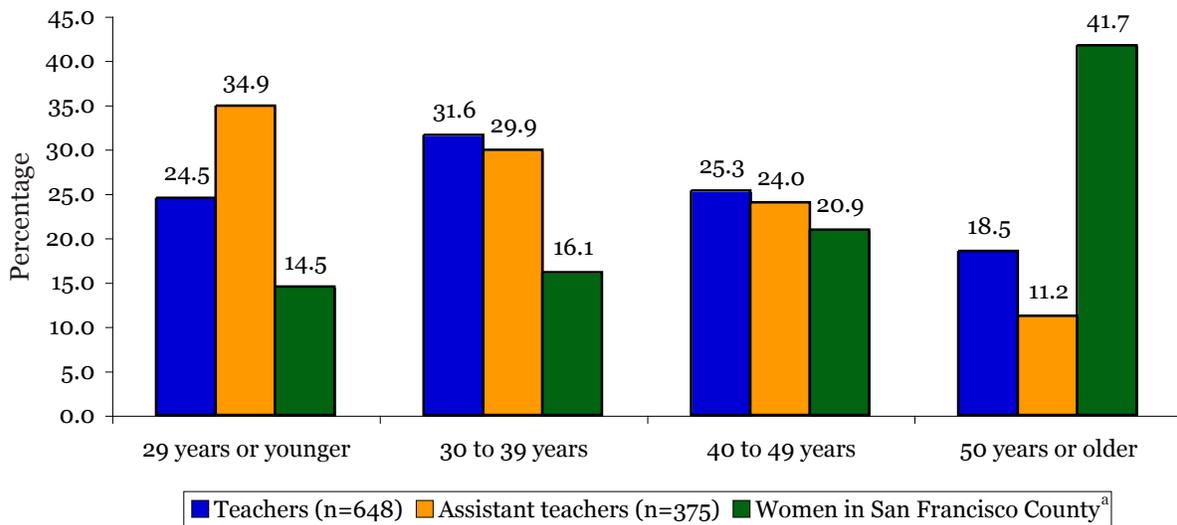
The age distribution of teachers and assistant teachers differed by whether or not centers enrolled infants as well as preschoolers. (See Figure 3.2.) Centers enrolling infants employed a greater proportion of teachers and assistant teachers under 30 years old, and a smaller

proportion of teachers and assistant teachers 50 years or older, than centers not serving infants. Only 16.6 percent of teachers and 25.8 percent of assistant teachers in centers without infants were under 30, compared to 43.7 percent of teachers and 51.1 percent of assistants in centers serving infants as well as preschoolers.

The age distribution of teachers and assistant teachers also varied depending on centers' relationship to public subsidy, as shown in Figure 3.3. Centers holding a contract with Head Start or CDE reported a smaller proportion of teachers and assistant teachers under 30 years old, and a greater proportion of teachers and assistant teachers 50 years or older, than centers receiving vouchers or centers receiving no public dollars.

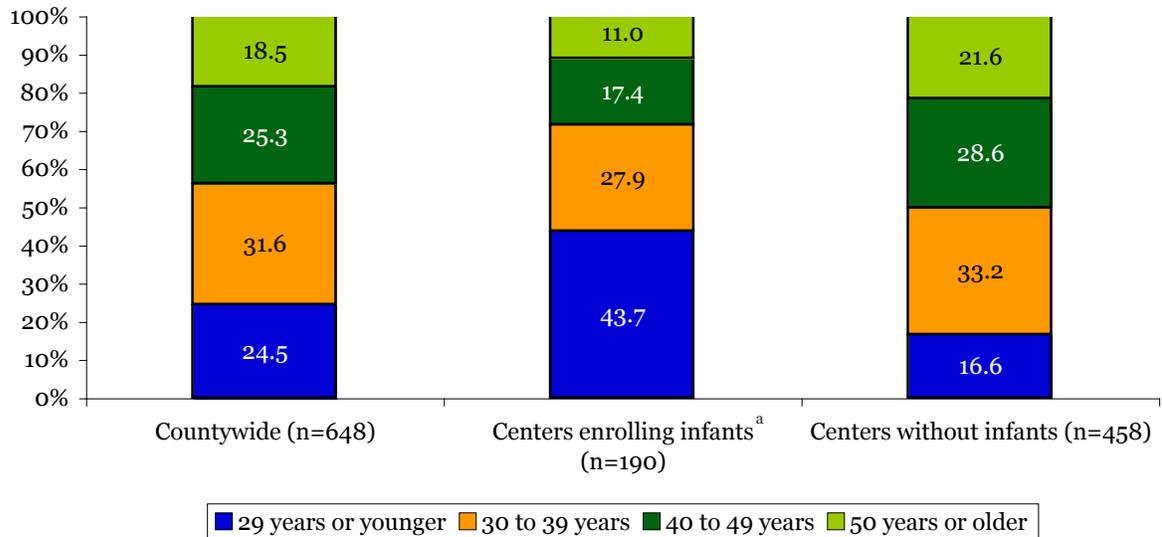
⁶ Previous research has established that the early care and education workforce is predominantly female. In the interest of survey length, therefore, directors were not asked about the gender of teaching staff.

Figure 3.1. *Estimated Age Distribution of Teachers and Assistant Teachers Compared to Women in San Francisco County: Countywide*



^a US Census Bureau (2004).

Figure 3.2. *Estimated Age Distribution of Teachers: Countywide, and By Ages of Children Served*



^a Most of these centers also enroll older children.

Figure 3.3. *Estimated Age Distribution of Teachers: Countywide, and By Centers' Relationship to Public Subsidy*

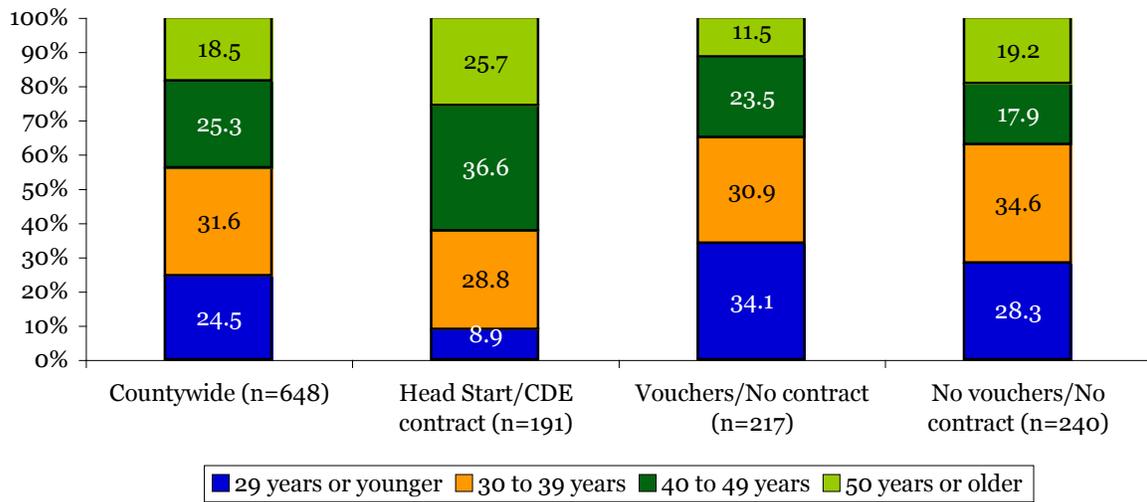


Table 3.1. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors: Countywide*

	Estimated percentage		
	Teachers	Assistant teachers	Directors
White, Non-Hispanic	33.3	15.5	40.4
Latina	15.7	20.7	14.7
African American	11.5	15.2	11.9
Asian/Pacific Islander	34.1	43.4	27.5
American Indian or Alaskan Native	0.8	0.3	0.9
Multiethnic	3.1	2.1	4.6
Other	1.4	2.8	0.0
<i>Total</i>	100.0	100.0	100.0
<i>Number of staff</i>	642	387	109

Ethnic Background

We found that about one-third (33.3 percent) of San Francisco County child care teachers were White, Non-Hispanic or Asian/Pacific Islander (34.1 percent). Latina teachers were the next largest ethnic group (15.7 percent), followed by African Americans (11.5 percent). Asian/Pacific Islanders constituted a plurality of assistant teachers (43.4 percent), followed by 20.7 percent Latinas, 15.5 percent White, Non-Hispanics and 15.2 percent African Americans. As shown in Table 3.1, in almost all cases, across job titles, those identifying themselves as Multiethnic, American Indian/Alaskan Native, or of some other ethnicity were the smallest ethnic groups. Although Table 3.1 also shows that across job titles, directors were the least ethnically diverse group, and assistant teachers were the most diverse, 59.6 percent of directors were women of color.

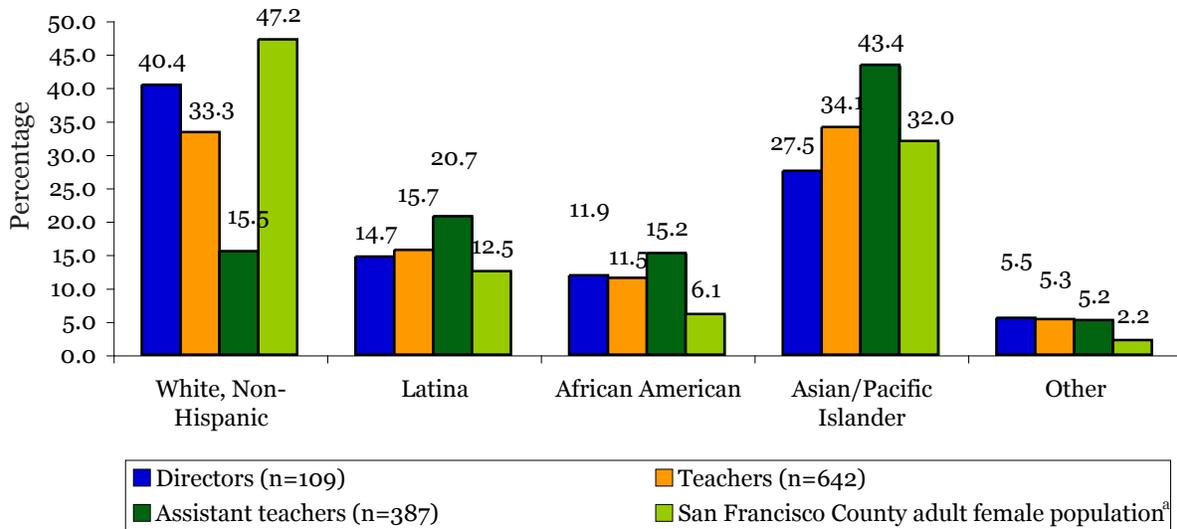
As shown in Figure 3.4, directors in San Francisco County child care centers enrolling infants and/or preschoolers were less likely to be White, Non-Hispanic or Asian/Pacific Islander, almost equally likely to be Latina, and more likely to be African American, than other adult females in the county. Teachers were less likely to be White, Non-Hispanic, almost equally likely to be Latina or Asian/Pacific Islander, and more likely to be African American, than other adult females in the county. Assistant teachers were less likely to be White, Non-Hispanic, and more likely to be Latina, Asian/Pacific Islander or African American, than the overall adult female population.

Teachers were somewhat more diverse than directors, and assistant teachers were more diverse than teachers and directors. Child care center directors, teachers and

assistant teachers, in addition, were more diverse than teachers in Grades K-12 in the county's public schools. (See Figure 3.5.) More than one-half of public school K-12 teachers (54.3 percent) were White, Non-Hispanic, compared to one-third of teachers (33.3 percent) in child care centers, and 48.5 percent of children ages birth to five (California Department of Education, 2004). Child care center teachers (15.7 percent) and assistant teachers (20.7 percent) were more likely to be Latina than were K-12 teachers (9.3 percent), and closely represented the proportion of Latina children ages birth to five (17.5 percent). Child care center teachers were also more likely to be African American (11.5 percent) than were K-12 teachers (5.9 percent) or children ages birth to five (5.4 percent). Center teachers were also more likely to be Asian/Pacific Islander (34.1 percent) than were children ages birth to five (22.7 percent). Assistant teachers were more likely to be African American (15.2 percent) or Asian/Pacific Islander (43.3 percent) than were children ages birth to five.

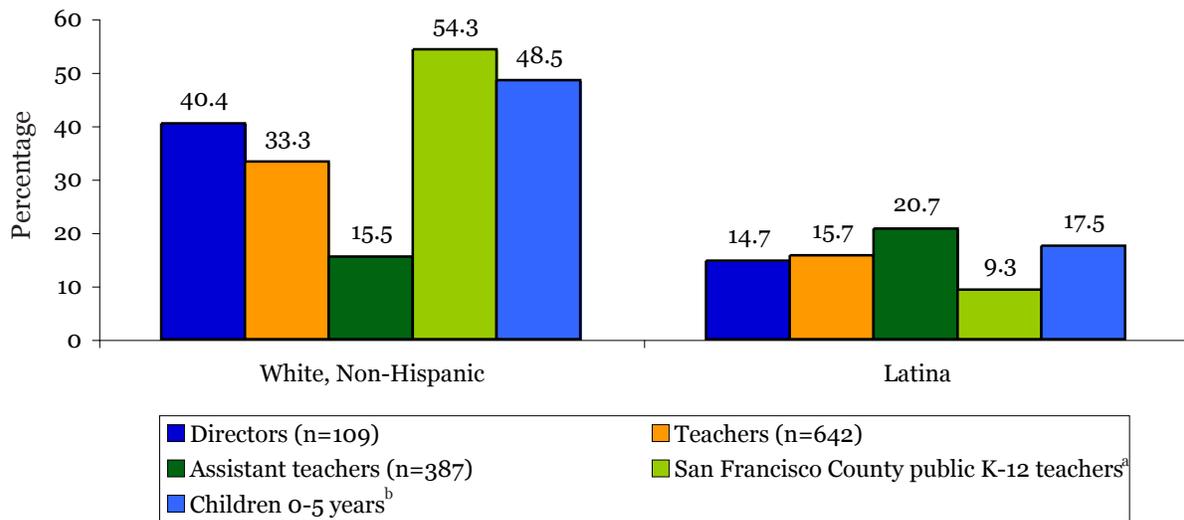
The ethnic composition of teaching staff also differed by the ages of children enrolled in centers. Centers serving infants reported a higher percentage of Latina directors (21.6 percent), and a smaller percentage of African American (8.1 percent) or Asian/Pacific Islander directors (21.6 percent), than centers serving only older children (11.1 percent Latina; 13.9 percent African American; 30.6 percent Asian/Pacific Islander). At the same time, centers serving infants employed a smaller percentage of White, Non-Hispanic teachers (22.7 percent) and greater percentage of Latina teachers (22.2 percent) than did centers not serving infants (37.3 percent White, Non-

Figure 3.4. *Estimated Ethnic Distribution of Teachers, Assistant Teachers and Directors Compared to the San Francisco County Adult Female Population: Countywide*



^a California Department of Finance (2004a).

Figure 3.5. *Estimated Ethnic Distribution of Directors, Teachers and Assistant Teachers Compared to San Francisco County Public K-12 Teachers and Children 0-5 Years: Countywide*



^a California Department of Education (2004).

^b California Department of Finance (2004a).

Table 3.2. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors, By Centers' Relationship to Public Subsidy*

		Estimated percentage		
		Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
Teachers	White, Non-Hispanic	14.2	35.3	47.8
	Latina	20.8	17.7	9.6
	African American	20.8	8.4	6.5
	Asian/Pacific Islander	41.1	34.9	27.4
	American Indian or Alaskan Native	0.0	0.5	1.7
	Multiethnic	1.0	2.3	5.7
	Other	2.0	0.9	1.3
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of teachers</i>	197	215	230
	Assistant teachers	White, Non-Hispanic	3.2	26.9
Latina		24.5	9.6	18.5
African American		19.9	17.3	5.9
Asian/Pacific Islander		46.8	36.5	40.3
American Indian or Alaskan Native		0.5	0.0	0.0
Multiethnic		1.9	7.7	0.0
Other		3.2	1.9	2.5
<i>Total</i>		100.0	100.0	100.0
<i>Number of assistant teachers</i>		216	52	119
Directors		White, Non-Hispanic	17.5	47.1
	Latina	30.0	8.8	2.9
	African American	25.0	5.9	2.9
	Asian/Pacific Islander	27.5	29.4	25.7
	American Indian or Alaskan Native	0.0	0.0	2.9
	Multiethnic	0.0	8.8	5.7
	Other	0.0	0.0	0.0
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of directors</i>	40	34	35

Hispanic, 13.3 percent Latina).

The ethnic composition of staff also differed by whether centers held a Head Start or CDE contract, received vouchers to cover the cost of subsidized children, or received no public dollars. As shown in Table 3.2, contracted programs employed the most diverse pool of teachers, assistant teachers and directors. Programs receiving no public funds were the least likely to employ assistants, teachers or directors of color.

In addition to looking at the percentage of teachers of various ethnicities among types of programs, it is helpful to consider the percentage of centers of a particular type that employ at least one teacher from a particular ethnic group. Depending on their relationship to public subsidy, centers may vary not only in the percentage of teachers of a particular ethnicity, but also in regard to whether they employ, for example, at least one African American teacher.

We found some variation among centers by relationship to public subsidy. Centers holding a contract with Head Start or CDE were less likely to employ at least one White, Non-Hispanic teacher (40.0 percent, SE=7.34), and more likely to employ at least one African American teacher (51.1 percent, SE=7.49), than centers not receiving any public funding (83.3 percent [SE=6.24] employed at least one White, Non-Hispanic; 19.4 percent [SE=6.63] employed at least one African American).

There were also variations between centers serving infants and those serving only older children. We found that centers serving infants were more likely to employ at least one Latina teacher (70.8 percent, SE=9.32) than centers not

enrolling infants (38.6 percent, SE=5.21).

Linguistic Background

We also found that the population of children served by San Francisco's County's licensed child care centers was characterized by great linguistic diversity. Our information on the language backgrounds of young children is based on 2004-05 data from the California Department of Education (CDE), which reported that almost one-half (45.5 percent) of kindergarteners attending San Francisco County public schools in that year spoke a language other than English and were classified as English Learners. Of the more than 47 different languages spoken by English Learners in the county's public kindergarten

Table 3.3. *San Francisco County Children in Public Kindergarten, 2004-2005: 15 Most Commonly Spoken Languages of English Language Learners*

	Percentage
Spanish	41.2%
Cantonese	37.7%
Filipino (Pilipino or Tagalog)	4.0%
Vietnamese	3.4%
Mandarin (Putonghua)	2.4%
Arabic	1.7%
Russian	1.6%
Japanese	1.3%
Toishanese	0.7%
Khmer (Cambodian)	0.6%
French	0.6%
Samoan	0.6%
Korean	0.6%
Portuguese	0.4%
Hindi	0.4%
N	1,958

Source: California Department of Education (2006).

classrooms, Table 3.3 lists the 15 most commonly spoken. Directors were asked whether they or any of their teachers or assistant teachers could speak fluently with children and families in a language other than English. If they answered affirmatively, they were asked which language(s) they or their teaching staff would be able to speak fluently with children and families if necessary. Our description of center staff fluency in these other languages is based entirely on directors' assessments. Note that the directors' reports do not permit us to assess whether those who spoke a language other than English also spoke English fluently.

As described below, there was a great deal of language diversity among center staff, with assistant teachers emerging as the most linguistically diverse group. About one-half of directors (47.3 percent) and teachers (52.6 percent), and three-fifths of assistant teachers (60.4 percent), had the capacity to communicate fluently with children and families in a language other than English. A majority of centers employed a director, teacher or assistant teacher with this capacity. As shown in Table 3.4, more than one-half of centers (55.3 percent) employed a director who could communicate fluently in a language other than English with children and families, while most centers employed at least one teacher (88.5 percent) or assistant teacher (80.5 percent) who could do so. In centers that employed at least one teacher or assistant with this language capacity, 64.3 percent of teachers and 74.4 percent of assistants were able to communicate fluently in a language other than English. (See Table 3.5.)

Among those who spoke languages other than English fluently with children

and families, the most commonly spoken languages were Spanish and Chinese:

- Among directors who spoke a language other than English fluently, 41.5 percent spoke Spanish, and 34.0 percent spoke Chinese.
- Among teachers who spoke a language other than English fluently, 34.3 percent spoke Spanish, and 45.1 percent spoke Chinese.
- Among assistant teachers who spoke a language other than English fluently, 31.9 percent spoke Spanish, and 43.3 percent spoke Chinese.

There was some variation in the linguistic background of teachers among centers serving particular groups of children. As shown in Tables 3.6 and 3.7, there were no significant differences in staff linguistic background among centers serving different age groups or with different relationships to public subsidy. Among centers that did employ such teachers, however, centers holding contracts with Head Start or CDE employed a greater percentage of such teachers, on average, than centers without public funding.

Turnover and Tenure

Center staff stability has been linked to overall program quality, the ability of a program to improve its quality, and children's social and verbal development (Whitebook, Howes & Phillips, 1998; Whitebook & Sakai, 2004). Turnover rates provide one important index of center workforce stability; namely, how much change in staffing a center has undergone in the previous year. Information on tenure offers a longer-term perspective on the level of staff stability over time within centers.

Table 3.4. *Estimated Percentage of Centers Employing at Least One Teacher, Assistant Teacher or Director with the Capacity to Communicate Fluently in a Language Other Than English: Countywide*

	Estimated percentage (SE)
Teachers	88.5 (3.01)
<i>Number of centers</i>	113
Assistant teachers	80.5 (4.40)
<i>Number of centers</i>	82
Directors	55.3 (5.42)
<i>Number of centers</i>	85

In order to determine rates of turnover, we asked directors to report the number of teachers, assistant teachers and directors who had left or stopped working at their centers for any reason, including leaves of absence, over the last 12 months.⁷ On average, 18.1 percent of teachers and 23.0 percent of assistant teachers were reported to have done so. (See Table 3.8.)

The range of turnover rates varied considerably among centers. Slightly more than one-half of centers (53.1 percent) reported no teacher turnover in the previous 12 months, and 58.1 percent reported no assistant teacher turnover, whereas approximately one-quarter of centers reported turnover rates of 25 percent or more among teachers and assistant teachers. About 10 percent of

⁷ Turnover discussed in this report refers to job turnover, the number of staff who leave employment at their centers over a fixed period of time. This study did not collect information about position turnover (changes of role while maintaining employment at the same center) or occupational turnover (departure from the child care field).

Table 3.5. *Estimated Mean Percentage of Employed Teachers and Assistant Teachers with the Capacity to Communicate Fluently in a Language Other than English, in Centers that Employed At Least One Such Person: Countywide*

	Estimated percentage (SE)
Teachers	64.3 (2.69)
<i>Number of centers</i>	100
Assistant teachers	74.4 (3.33)
<i>Number of centers</i>	66

centers reported that one-half or more of teachers, and four-fifths or more of assistant teachers, had left or stopped working at the center during the previous 12 months.

Director turnover (14.3 percent) was lower than teacher turnover. The vast majority of centers (87.1 percent) reported no director turnover in the previous 12 months.

To measure rates of tenure, we asked directors to report how many teachers, assistant teachers and directors at their centers had been employed for less than one year, from one to five years, or for more than five years. Among various positions within centers, directors were the most stable group of employees, followed by teachers and assistant teachers. (See Figure 3.6.) More than one-half of directors (53.6 percent) had been employed for more than five years at their centers, compared to 41.3 percent of teachers and only 34.3 percent of assistant teachers. Less than one-half of

Table 3.6. Estimated Percentage of Centers Employing at Least One Teacher, Assistant Teacher or Director with the Capacity to Communicate Fluently in a Language Other Than English: Countywide, By Ages of Children Served, and By Centers' Relationship to Public Subsidy

	Estimated percentage (SE)					
	Countywide	Centers enrolling infants ^a	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Teachers*	88.5 (3.01)	92.0 (5.45)	87.5 (3.54)	88.9 (4.71)	90.3 (5.33)	86.5 (5.65)
<i>Number of centers</i>	113	25	88	45	31	37
Assistant teachers	80.5 (4.40)	77.8 (9.86)	81.3 (4.91)	87.8 (5.14)	73.7 (10.16)	72.7 (9.55)
<i>Number of centers</i>	82	18	64	41	19	22
Directors	55.3 (5.42)	71.4 (9.92)	50.0 (6.29)	69.7 (8.05)	50.0 (9.86)	42.3 (9.75)
<i>Number of centers</i>	85	21	64	33	26	26

^a Most of these centers also enroll older children.

**p* < .01, Centers enrolling infants > centers without infants.

Table 3.7. Estimated Mean Percentage of Teachers, Assistant Teachers and Directors with the Capacity to Communicate Fluently in a Language Other Than English, in Centers that Employed At Least One Such Person: Countywide, By Ages of Children Served, and by Centers' Relationship to Public Subsidy

	Estimated percentage (SE)					
	Countywide	Centers enrolling infants ^a	Centers without infants	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Teachers*	64.3 (2.69)	71.7 (5.37)	62.1 (3.06)	72.5 (3.64)	63.0 (5.06)	55.2 (5.00)
<i>Number of centers</i>	100	23	77	40	28	32
Assistant teachers	74.4 (3.33)	75.6 (6.89)	74.1 (3.81)	76.7 (4.01)	72.1 (7.91)	71.4 (7.64)
<i>Number of centers</i>	66	14	52	36	14	16
Directors	86.3 (3.68)	68.3 (7.91)	94.8 (2.91)	94.9 (3.49)	80.8 (6.79)	75.0 (10.05)
<i>Number of centers</i>	47	15	32	23	13	14

^a Most of these centers also enroll older children. **p* < .05 Head Start/CDE contract contact > Vouchers/No Contract.

centers (44.2 percent, SE=5.4) reported employing at least one assistant teacher for five years or more.

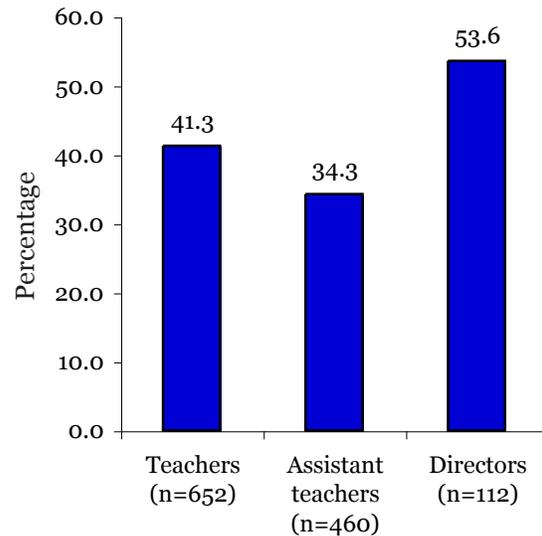
Staff turnover and tenure varied significantly by center characteristics. Turnover for teachers in centers holding contracts with Head Start or CDE (25.9 percent) was higher than in centers with no public funding (7.9 percent). Centers receiving vouchers reported the highest assistant teacher turnover (45.8 percent). Turnover did not vary significantly among centers serving children of different age groups. (See Tables 3.8 and 3.9.)

Staffing among directors, teachers and assistant teachers, as measured by tenure, was less stable in centers serving infants and preschoolers than in centers not serving infants. (See Table 3.10.) Tenure also differed among centers with varying relationships to public subsidy; teachers working in centers with a Head Start or CDE contract were less stable than those in centers receiving vouchers or without public funding. On the other hand, assistant teachers working in contracted centers were the most stable. Directors were most stable in centers receiving vouchers, followed by centers without public funding and contracted centers. (See Table 3.11.)

Wages

We sought to document the current compensation of teachers and assistant teachers working in San Francisco County child care centers licensed to serve infants and/or preschoolers. Because of the length of the survey, we focused our investigation on two categories of teaching staff: teachers with BA or higher degrees, and assistant teachers. We did not collect information about benefits such as health coverage or retirement plans.

Figure 3.6. *Estimated Percentage of Teachers, Assistant Teachers and Directors who have Worked at Their Current Center for More Than Five Years: Countywide*



We asked directors to provide hourly wages for their highest- and lowest-paid teachers with a BA or higher degree. Our intention was to document the pay rates of those teachers with the highest level of education. By asking for the lowest rate of pay, we were able to capture what is likely to be paid at a center to a new teacher with a BA or higher degree. By asking for the highest rate of pay, we were able to gain a sense of the pay ladder available to more tenured teachers with degrees. We also asked directors to provide hourly wages for their highest-paid assistant teachers. We assumed that this amount would reflect the wages of those assistants who had been at the center for some period of time, rather than new recruits.

Table 3.12 provides average highest and lowest hourly wages paid to teachers with BA or higher degrees countywide.

The lowest countywide wages (\$15.47 an hour) were, on average, \$3.76 an hour less than the highest countywide wages (\$19.23 an hour).

In addition to average wages, we examined the distribution of wages among highest- and lowest-paid teachers with BA or higher degrees, and among assistant teachers. One-quarter of centers paid their highest-paid degreed teachers less than \$16.00 per hour (about \$33,280 per year), and about one-quarter of centers paid their assistant teachers \$10.50 per hour or less (or \$21,840 per year). Only about 10 percent of centers paid their highest-paid teachers \$25.00 or more per hour (or \$52,000 per year), and only 10 percent of centers paid their highest-paid assistant teachers more than \$15.00 per hour or more (or \$31,200 per year).

We also examined whether centers serving different groups of children varied in their pay rates. We found that in centers serving both infants and preschoolers, the lowest- and highest-paid degreed teachers, as well as the assistant teachers, earned less on average than their counterparts in centers not serving infants. (See Table 3.12.) We also found that the lowest-paid degreed teachers earned less, on average, in centers receiving vouchers than in contracted centers or in centers without public funding. (See Table 3.13.)

Size of the Teacher, Assistant Teacher and Director Workforce in San Francisco County Centers Licensed to Serve Infants and/or Preschoolers

Directors were asked to report the overall number of teachers, assistant teachers and directors employed in their centers, and then to report how many

teachers and assistant teachers worked in classrooms with infants and/or preschool children, and how many worked in classrooms with school-age children (if any such children were enrolled in their centers).⁸ The following section provides information about:

- the overall number of teachers and assistant teachers in centers licensed to serve infants and/or preschoolers;
- the average number of teachers and assistant teachers working in such centers;
- the overall number of directors working in centers licensed to serve infants and/or preschoolers; and
- the average number of directors working in such centers.

Overall Number of Teachers, Assistant Teachers and Directors Employed in Centers Licensed to Serve Infants and/or Preschoolers

As shown in Table 3.14, the teacher, assistant teacher and director workforce in San Francisco County's centers licensed to care for infants and/or preschoolers comprised an estimated 2,730 members. (See Appendix B for a description of the estimate methodology.) An estimate of the total workforce in these centers would also include teachers and assistants working with school-age children, and would increase the estimate by approximately six percent. Because many centers also employ cooks, custodians, social workers, family support workers,

⁸ Assistant teachers and teachers working with school-age children constituted approximately six percent of the teaching staff at these centers. We do not provide estimates of the countywide numbers of school-age teachers and assistant teachers employed in these programs, because we recognize that these staff constitute only a small portion of the teaching staff countywide working in programs to serve school-age children, most of which do not serve younger children and many of which are exempt from licensing.

Table 3.8. Estimated Mean Percentage of Annual Job Turnover Among Teachers, Assistant Teachers and Directors: Countywide, and By Ages of Children Served

	Estimated mean percentage (SE)		
	Countywide	Centers enrolling infants ^a	Centers without infants
Teachers	18.1 (2.85)	20.5 (8.14)	17.4 (2.87)
<i>Number of centers</i>	113	25	88
Assistant teachers	23.0 (4.67)	30.3 (11.33)	20.9 (5.08)
<i>Number of centers</i>	85	19	66
Directors	14.3 (5.49)	19.8 (7.60)	12.5 (6.87)
<i>Number of centers</i>	85	21	64

^a Most of these centers also enroll older children.

Table 3.9. Estimated Mean Percentage of Annual Job Turnover Among Teachers, Assistant Teachers and Directors: Countywide, and By Centers' Relationship to Public Subsidy

	Estimated mean percentage (SE)			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
Teachers*	18.1 (2.85)	25.9 (6.06)	19.0 (4.53)	7.9 (1.84)
<i>Number of centers</i>	113	45	31	37
Assistant teachers**	23.0 (4.67)	16.0 (4.13)	45.8 (15.90)	15.9 (5.75)
<i>Number of centers</i>	85	42	20	23
Directors	14.3 (5.49)	20.2 (12.72)	5.8 (4.23)	15.4 (6.73)
<i>Number of centers</i>	85	33	26	26

* $p < .05$, Head Start/CDE contract > No vouchers/No contract.

** $p < .05$, Vouchers/No contract < Head Start/CDE contract, No vouchers/No contract.

Table 3.10. Estimated Percentages of Teachers, Assistant Teachers and Directors With Different Rates of Tenure: Countywide, and By Ages of Children Served

		Estimated percentage		
		Countywide	Centers enrolling infants ^a	Centers without infants
Teachers	< 1 year	13.0	19.7	10.3
	1-5 years	45.7	59.6	40.1
	> 5 years	41.3	20.7	49.6
<i>Number of teachers</i>		652	188	464
Assistant teachers	< 1 year	24.8	28.0	22.9
	1-5 years	40.9	42.9	39.7
	> 5 years	34.3	29.2	37.3
<i>Number of assistant teachers</i>		460	168	292
Directors	< 1 year	4.5	5.0	4.2
	1-5 years	42.0	55.0	34.7
	> 5 years	53.6	40.0	61.1
<i>Number of directors</i>		112	40	72

^a Most of these centers also enroll older children.

Table 3.11. Estimated Percentage of Teachers, Assistant Teachers and Directors With Different Rates of Tenure: Countywide, and By Centers' Relationship to Public Subsidy

		Estimated percentage			
		Countywide	Head Start/ CDE contract	Vouchers/No contract	No vouchers/ No contract
Teachers	< 1 year	13.0	26.7	13.0	13.5
	1-5 years	45.7	60.5	50.7	54.6
	> 5 years	41.3	12.8	36.3	31.9
<i>Number of teachers</i>		652	86	215	251
Assistant teachers	< 1 year	24.8	9.2	48.9	34.3
	1-5 years	40.9	30.3	50.0	52.1
	> 5 years	34.3	60.5	1.1	13.6
<i>Number of assistant teachers</i>		460	228	92	140
Directors	< 1 year	4.5	7.5	0.0	5.3
	1-5 years	42.0	50.0	32.4	42.1
	> 5 years	53.6	42.5	67.6	52.6
<i>Number of directors</i>		112	40	34	38

Table 3.12. *Estimated Mean Hourly Wages Paid to Teachers with a BA or Higher Degree, and to Assistant Teachers: Countywide, and By Ages of Children Served*

		Estimated mean hourly wage (SE)	Number of centers
Teachers with BA or higher degree, highest wage*	Centers enrolling infants ^a	16.87 (0.98)	17
	Centers without infants	20.01 (0.77)	51
	Countywide	19.23 (0.65)	68
Teachers with BA or higher degree, lowest wage*	Centers enrolling infants ^a	14.01 (0.62)	17
	Centers without infants	15.97 (0.53)	50
	Countywide	15.47 (0.44)	67
All assistant teachers, highest wage*	Centers enrolling infants ^a	11.63 (0.29)	17
	Centers without infants	12.75 (0.39)	49
	Countywide	12.47 (0.30)	66

Most of these centers also enroll older children.

*p < .05, Centers enrolling infants < Centers without infants

Table 3.13. *Estimated Mean Hourly Wages Paid to Teachers with a BA or Higher Degree, and to Assistant Teachers: Countywide, and By Centers' Relationship to Public Subsidy*

		Estimated mean hourly wage (SE)	Number of centers
Teachers with BA or higher degree, highest wage	Head Start/CDE contract	20.42 (1.67)	20
	Vouchers/No contract	17.86 (1.00)	23
	No vouchers/No contract	19.52 (0.69)	25
	Countywide	19.23 (0.65)	68
Teachers with BA or higher degree, lowest wage*	Head Start/CDE contract	17.04 (0.97)	19
	Vouchers/No contract	13.68 (0.50)	22
	No vouchers/No contract	15.85 (0.66)	26
	Countywide	15.47 (0.44)	67
All assistant teachers, highest wage	Head Start/CDE contract	12.46 (0.47)	29
	Vouchers/No contract	11.64 (0.48)	18
	No vouchers/No contract	13.26 (0.59)	19
	Countywide	12.47 (0.0)	66

*p < .01, Vouchers/No contract < Head Start/CDE contract, No vouchers/No contract.

Table 3.14. *Estimated Distribution of Assistant Teachers, Teachers and Directors Working with Infants and/or Preschoolers: Countywide*

		Assistant teachers	Teachers	Directors	Total
Countywide	Total number	1,021	1,463	246	2,730
	Percentage	37.4	53.6	9.0	100.0

educational coordinators and/or office staff (Brandon et al., 2002), the total early care and education workforce for centers licensed to serve infants and/or preschoolers may approach or even exceed 3,686 members.

As shown in Table 3.15, centers enrolling infants as well as preschoolers employed about one-third of all assistant teachers, teachers and directors, with the remaining staff employed in centers that did not enroll infants. Centers serving infants as well as preschoolers did not differ from those not serving infants, however, with respect to the proportion of their staff who were teachers, assistant teachers or directors.

Table 3.16 shows the countywide distribution of teachers, assistant teachers and directors by centers' subsidy status.⁹ Each type of center employed approximately one-third of the directors. Contracted centers employed 50.0 percent of the assistant teachers, and centers not receiving public funding employed the greatest proportion of teachers (37.8 percent). Based on their relationship to public subsidy, centers varied in the proportion of their staff who were teachers, assistant teachers or directors, as shown in Table 3.17.

Average Number of Teachers, Assistant Teachers and Directors Employed in Centers Licensed to Serve Infants and/or Preschoolers

As shown in Table 3.18, we estimate that centers in San Francisco County licensed to serve infants and/or preschoolers employed, on average, six teachers, four assistant teachers and one director.¹⁰ On average, the vast majority of teachers (95.3 percent, SE=1.2) and assistant teachers (97.6 percent, SE=0.8) in these programs worked with infants and/or preschoolers. The other teachers and assistant teachers worked with school-age children.

As shown in Table 3.19, there were no variations in the average number of assistants, teachers and directors among centers with different relationships to public subsidy.

⁹ As described in the introduction of this report, contracted centers operate under more stringent ratio and staff qualification regulations; indeed, assistant teacher qualifications in contracted programs match or exceed those required by licensing for teachers in non-contracted programs.

¹⁰ Note that 15.8 percent of centers had more than one director, 58.8 percent of centers had one director, and 25.4 percent of centers had no one who served only as an administrative director. In many of the latter centers, the person with director responsibilities was also a teacher.

Table 3.15. *Estimated Number and Percentage of Assistant Teachers, Teachers and Directors Working with Infants and/or Preschoolers: Countywide, and By Ages of Children Served*

		Assistant teachers	Teachers	Directors	Total
Centers enrolling infants^a	Total number	370	438	88	896
	Percentage	36.2	29.9	35.8	32.8
Centers without infants	Total number	651	1,025	158	1,834
	Percentage	63.8	70.1	64.2	67.2
All centers	Total number	1,021	1,463	246	2,730
	Percentage	100.0	100.0	100.0	100.0

^a Most of these centers also enroll older children.

Table 3.16. *Estimated Number and Percentage of Assistant Teachers, Teachers and Directors Working with Infants and/or Preschoolers: Countywide, and By Centers' Relationship to Public Subsidy*

		Assistant teachers	Teachers	Directors	Total
Head Start/ CDE contract	Total number	510	433	88	1,031
	Percentage	50.0	29.6	35.6	37.8
Vouchers/No contract	Total number	202	477	75	754
	Percentage	19.8	32.6	30.4	27.6
No vouchers/No contract	Total number	308	552	84	944
	Percentage	30.2	37.8	34.0	34.6
All centers	Total number	1,020	1,462	247	2,729
	Percentage	100.0	100.0	100.0	100.0

Table 3.17. *Estimated Distribution of Assistant Teachers, Teachers and Directors Working with Infants and/or Preschoolers: Countywide, and By Centers' Relationship to Public Subsidy*

		Assistant teachers	Teachers	Directors	Total
All centers countywide	Total number	1,021	1,463	246	2,730
	Percentage	37.4	53.6	9.0	100.0
Head Start/CDE contract	Total number	510	433	88	1,031
	Percentage	49.5	42.0	8.5	100.0
Vouchers/No contract	Total number	202	477	75	754
	Percentage	26.8	63.2	9.9	100.0
No vouchers/No contract	Total number	308	552	84	944
	Percentage	32.6	58.5	8.9	100.0

Table 3.18. Estimated Mean Number of Assistant Teachers, Teachers and Directors Employed by Centers: Countywide

	All staff	Infant/ preschool teaching staff
Assistant teachers	4.3 (0.67)	4.1 (0.64)
Teachers	6.2 (0.46)	5.9 (0.44)
Directors	1.0 (0.80)	

Table 3.19. Estimated Mean Number of Teachers and Assistant Teachers Employed by Centers: Countywide, and By Centers' Relationship to Public Subsidy

	Estimated mean number (SE)			
	Head Start/CDE contract	Vouchers/No contract	No vouchers/ No contract	Countrywide
Assistant teachers	5.6 (0.86)	3.0 (1.28)	3.8 (1.35)	4.3 (0.67)
<i>Number of centers</i>	45	31	38	114
Teachers	5.0 (0.48)	7.2 (1.00)	6.9 (0.92)	6.2 (0.46)
<i>Number of centers</i>	45	31	38	114

What are the characteristics of children in San Francisco County child care centers licensed to serve infants and/or preschoolers?

In San Francisco County, teachers and assistants care for and educate approximately 14,531 children in centers licensed to serve infants and/or preschoolers. Almost 90 percent of the children in these centers are not yet in kindergarten, and 69 percent are between the ages of three and five. Eight percent are children under age two, about 10 percent are age two, and 13 percent are in kindergarten or a higher grade. On average, about five percent of children in these centers are reported by directors to have special needs.

About two-third of centers report caring for at least one child who receives public child care assistance. About 27 percent of centers receive public dollars in the form of vouchers, and 40 percent of centers receive public dollars through a contract with Head Start or the California Department of Education, to cover the cost of care for the subsidized children they serve. Centers vary considerably in size, with 20 percent enrolling 25 or fewer children and 20 percent enrolling over 94 children or more.

As shown in Table 3.20, licensed child care centers in San Francisco County provided services in 2005 to an estimated 12,584 infants and/or preschoolers, not yet in kindergarten. In addition, these centers cared for 1,947 children in kindergarten or a higher grade.¹¹ (Appendix B describes the methodology used to calculate the estimated number of children served.) Table 3.20 also presents a distribution by age group of the estimated numbers of children enrolled.¹² Sixty-nine percent of these children were preschoolers, ages three to five, 17.6 percent were two years old or younger, and 13.4 percent were in kindergarten or older.

Center directors were asked about the

¹¹ This figure does not include centers licensed exclusively to serve school-age children.

¹² The licensed capacity of a center (the number of children it is approved to serve) may be less than or greater than actual number of children enrolled. Some centers, for example, may choose to enroll fewer children than permitted in their space, or may not be able to find enough children to reach their full capacity. Alternately, some centers may enroll children in part-day sessions, and thus serve a higher overall number of children but never exceed their licensed capacity at any given time.

Table 3.20. *Estimated Number of Children Enrolled in San Francisco County Child Care Centers Licensed to Serve Infants and/or Preschoolers*

	Number enrolled
Under age 2	1,155
Age 2	1,404
Ages 3 to 5, not yet in kindergarten	10,025
Ages 5 or younger, not in kindergarten	12,584
Ages 5 or older, in kindergarten or higher grade	1,947
All ages	14,531

number of children in various age groups that their centers enrolled, and they reported a variety of age configurations. (See Table 3.21.)

- Virtually all centers (93.0 percent, SE=2.40) reported caring for children between the ages of three and five.
- 3.5 percent (SE=1.75) reported caring for children across the entire age span from infancy through school-age. The percentage of centers caring for

children across the age spans did not vary by subsidy status.

- 24.6 percent (SE=4.05) reported caring for at least one child attending kindergarten or a higher grade.
- 21.9 percent of centers (SE=3.89) enrolled children under age two, and 4.4 percent of centers (SE=1.93) enrolled infants exclusively.¹³
- 47.8 percent of centers (SE=4.72) enrolled two-year-old children.

Table 3.22 shows the average number of children enrolled in centers for each age group. Centers varied considerably in terms of the *overall* number of children enrolled. Approximately 20 percent of centers enrolled 25 or fewer children, and about 20 percent enrolled 94 children or more. As shown in Table 3.23, centers, on average, enrolled 57.2 children across the entire age span and 49.4 infants and/or preschoolers.

Centers and Public Dollars for Child Care Assistance

Centers subsidize the cost of services for children enrolled in their programs as a condition of a contract the center holds with Head Start or the California Department of Education (CDE), or by accepting vouchers available to families through CalWorks and Alternative Payment Program funding. Thus, to determine whether programs enrolled any children who received public child care assistance, we asked whether the program held a contract with Head Start or CDE, or enrolled at least one child who received a voucher. We estimate that 66.7 percent of centers in San Francisco County licensed to serve infants and/or preschoolers

¹³ Some centers that do not have an infant license have a Toddler Option within their preschool license, allowing them to serve children under age two.

Table 3.21. *Estimated Percentage of Centers Serving at Least One Child in Various Age Groups: Countywide*

	Estimated percentage (SE)
Countrywide	
Under age 2	21.9 (3.89)
<i>Number of centers</i>	114
Age 2	47.8 (4.72)
<i>Number of centers</i>	113
Ages 3-5, not yet in kindergarten	93.0 (2.40)
<i>Number of centers</i>	114
Ages 5 or older, in kindergarten or higher grade	24.6 (4.05)
<i>Number of centers</i>	114

enrolled at least one subsidized child. About two-fifths of centers (39.5 percent) held a contract with Head Start or CDE. (See Table 3.24.) Of the centers that did not hold such a contract, 46.9 percent reported enrolling at least one child who received a voucher. These centers represented 27.2 percent of all centers in our sample.

In centers that held contracts with Head Start or CDE, most if not all children received public assistance for child care.¹⁴ Since vouchers “follow” specific children, however, centers without contracts that reported enrolling at least one child receiving public child care assistance may or may not have enrolled additional subsidized children. We therefore asked directors who reported enrolling at least one subsidized child through a voucher, how many such children they enrolled. We

¹⁴ These centers may also accept vouchers, but we did not explore whether this was the case, as we knew that most enrolled children were subsidized.

Table 3.22. Children Served, by Age Group: Countywide

	Estimated mean number of children served (SE)
Under age 2	21.0 (3.69)
<i>Number of centers</i>	25
Age 2	11.8 (1.35)
<i>Number of centers</i>	54
Ages 3-5, not yet in kindergarten	43.0 (2.40)
<i>Number of centers</i>	106
Ages 5 or older, in kindergarten or higher grade	31.6 (6.46)
<i>Number of centers</i>	28

Table 3.24. Estimated Percentage of Centers That Receive Public Dollars: Countywide

	Estimated percentage (SE)	Number of centers
Head Start or CDE contract	39.5 (4.60)	45
Vouchers/ No contract	27.2 (4.19)	31
No vouchers/ No contract	33.3 (4.43)	38

Table 3.23. Estimated Mean Number of Children Served: Countywide

	Estimated mean number of children served (SE)
All ages	57.2 (3.79)
<i>Number of centers</i>	113
Ages 5 or younger, not in kindergarten	49.4 (2.82)
<i>Number of centers</i>	113

Table 3.25. Estimated Mean Percentage of Subsidized Children Enrolled in Centers Receiving Vouchers: Countywide

	Estimated mean percentage (SE)
Children receiving voucher subsidy	23.2 (5.32)
<i>Number of centers</i>	30

were thus able to calculate the percentage of children receiving public child care assistance in programs that enrolled at least one child with a voucher.

On average, in centers that cared for at least one child receiving a child care voucher, 23.2 percent of children enrolled in that center received this type of assistance. (See Table 3.25.) There was considerable variation in the percentage of children enrolled in centers that received vouchers. Thirty-three percent of centers enrolled five percent or fewer children on vouchers, while 69.3 percent of centers enrolled 20 percent or fewer, and 29.7 percent enrolled 25 percent or more. For centers enrolling at least one child receiving a voucher, there were no significant differences in the average percentage of such children between centers enrolling and not enrolling infants.

Average center size did not vary by the subsidy status of the centers. As shown in Tables 3.26, centers that served children with vouchers were the most likely to serve two-year-olds. Contracted centers served, on average, a greater percentage of children in kindergarten or higher grades. (See Table 3.27.)

We estimate that 69.9 percent of licensed child care centers in San Francisco County (SE=4.3) were private nonprofit agencies. Public agencies (e.g., school districts) operated 15.9 percent (SE=3.5) of centers, and for-profit agencies constituted 14.2 percent (SE=3.3) of centers. As shown in Table 3.28, centers that held a Head Start or CDE contract were the most likely to be public agencies.

Children with Special Needs

Center directors were asked how many children (if any) with disabilities, or with special emotional or physical needs, were enrolled in their centers.¹⁵ As a result, we estimate that 56.8 (SE=4.7) of San Francisco County's centers licensed to serve infants and/or preschoolers cared for children with special needs. On average, children with special needs constituted 8.8 percent (SE=0.9) of the child population in centers that enrolled at least one such child. Only about 15 percent of all centers reported that 10 percent or more of their children had special needs, and less than three percent of all centers reported that children with special needs constituted 25 percent or more of all children enrolled.

Centers not serving infants were more likely to enroll children with special needs (61.4 percent, SE=5.2) than were centers serving children under age two in addition to older children (39.1 percent, SE=10.2).

Depending on whether, and through which vehicle, they served subsidized children, centers did not differ in whether they enrolled any children with special needs. (See Table 3.29.) Among centers that served at least one such child, those with a Head Start or CDE contract reported enrolling, on average, a higher percentage of such children than other centers, in part reflecting these centers' mandate to do so, as shown in Table 3.30.

¹⁵ Interviewees were told, "By disabilities or special needs, we mean any child who is protected by the American with Disabilities Act (ADA)." If the interviewee asked for clarification, interviewers added, "This would include children who are considered at-risk of a developmental disability, or who may not have a specific diagnosis but whose behavior, development, and/or health affect their family's ability to find and maintain services."

Table 3.26. Estimated Percentage of Centers Serving at Least One Child in Various Age Groups: Countywide, and by Centers' Relationship to Public Subsidy

	Estimated percentage (SE)			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
Under age 2	21.9 (3.89)	17.8 (5.72)	32.2 (8.43)	18.4 (6.32)
<i>Number of centers</i>	114	45	31	38
Age 2*	47.8 (4.72)	26.7 (6.62)	74.2 (7.89)	51.4 (8.25)
<i>Number of centers</i>	113	45	31	37
Ages 3-5, not yet in kindergarten	93 (2.40)	93.3 (3.73)	90.3 (5.33)	94.7 (3.64)
<i>Number of centers</i>	114	45	31	38
Ages 5 or older, in kindergarten or higher grade	24.6 (4.05)	22.2 (6.22)	29.0 (8.19)	23.7 (6.93)
<i>Number of centers</i>	114	45	31	38

* $p < .001$, Vouchers/No contract > Head Start/CDE contract, No vouchers/No contract.

Table 3.27. Estimated Mean Number of Children Served, by Age Group: Countywide, and by Centers' Relationship to Public Subsidy (Includes only those centers that care for at least one child in that age group)

	Estimated mean number of children served (SE)			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
Under age 2	21.0 (3.69)	23.8 (8.48)	15.4 (2.73)	25.9 (8.33)
<i>Number of centers</i>	25	8	10	7
Age 2	11.8 (1.35)	8.8 (1.99)	12.0 (2.08)	13.5 (2.60)
<i>Number of centers</i>	54	12	23	19
Ages 3-5, not yet in kindergarten	43.0 (2.40)	43.1 (3.24)	37.2 (4.98)	47.4 (4.53)
<i>Number of centers</i>	106	42	28	36
Ages 5 or older, in kindergarten or higher grade	31.6 (6.46)	58.5 (12.43)	10.8 (3.27)	22.6 (8.35)
<i>Number of centers</i>	28	10	9	9

Table 3.28. Center Auspices: Countywide, and by Centers' Relationship to Public Subsidy

	Estimated percentage (SE)				Number of centers
	Private nonprofit	Public*	For-profit	Total	
Countywide	69.9 (4.33)	15.9 (3.46)	14.2 (3.29)	100.0	133
Head Start/CDE contract	63.6 (7.28)	36.4 (7.28)	0.0 (0.00)	100.0	44
Vouchers/No contract	64.5 (8.63)	3.2 (3.19)	32.2 (8.43)	100.0	31
No vouchers/No contract	81.6 (6.32)	2.6 (2.61)	15.8 (5.94)	100.0	38

* $p < .05$, Head Start/CDE contract > Vouchers/No contract, No vouchers/No contract.

Table 3.29. Estimated Percentage of Centers that Care for At Least One Child with Special Needs: Countywide, and by Centers' Relationship to Public Subsidy

	Estimated percentage (SE)			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
No children with special needs	43.2 (4.72)	35.6 (7.17)	45.2 (8.98)	51.4 (8.49)
At least one child with special needs	56.8 (4.72)	64.4 (7.17)	54.8 (8.98)	48.6 (8.49)
Total	100.0	100.0	100.0	100.0
Number of centers	111	45	31	35

Table 3.30. Estimated Mean Percentage of Children with Special Needs Served: Countywide, and by Centers' Relationship to Public Subsidy (Includes only those centers that care for at least one child with special needs)

	Estimated mean percentage (SE)			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
Children with special needs served	8.8 (0.92)	12.1 (1.45)	8.1 (1.70)	3.9 (0.61)
Number of centers	63	29	17	17

What is the level of educational attainment and early childhood development-related training among teachers, assistants and directors in San Francisco County's child care centers?

Compared to San Francisco County's overall adult female population, teachers working in centers enrolling infants and/or preschoolers are more likely to have attended college and/or completed a two-year degree. They are equally likely to have completed a four-year or higher college degree, and less likely to have completed high school only.

One-half of teachers have completed a four-year or graduate degree, and one-quarter have completed a two-year degree, typically with an early childhood focus. Twenty percent of centers do not employ any teachers with a four-year or higher degree.

Assistant teachers in San Francisco County are also more likely than the average female in the county to have attended college and/or completed a two-year degree, but they are less likely to have obtained a four-year or higher degree. Assistant teachers have lower levels of degree attainment than teachers or directors. More than 40 percent of assistant teachers have completed from one to 23 college credits related to early childhood development. Only about seven percent have completed neither college credits nor a degree related to early childhood.

Ninety-five percent of directors have completed a two-year, four-year or higher degree, typically with an early childhood focus. Nearly 90 percent of directors have completed a four-year or higher degree.

The majority of degree holders have completed a degree related to early childhood development. Approximately 15 percent of teachers and 20 percent of directors with BA or higher degrees obtained their degree through a foreign institution.

Across the county, about 60 percent of teachers and 40 percent of assistant teachers are current participants in CARES. More than three-quarters of centers report employing at least one teacher who is a CARES participant, and more than two-thirds report employing at least one assistant teacher who is a CARES participant. Within such centers, typically about three-quarters of teachers and assistants are participating.

About two-thirds of all teachers with an AA or higher degree hold a Child Development Permit, and about two-thirds of all directors hold a Site Supervisor Permit. About one-quarter of teachers and one-third of directors with a BA or higher degree have a teaching credential (as opposed to a Child Development Permit) issued by the California Commission on Teacher Credentialing.

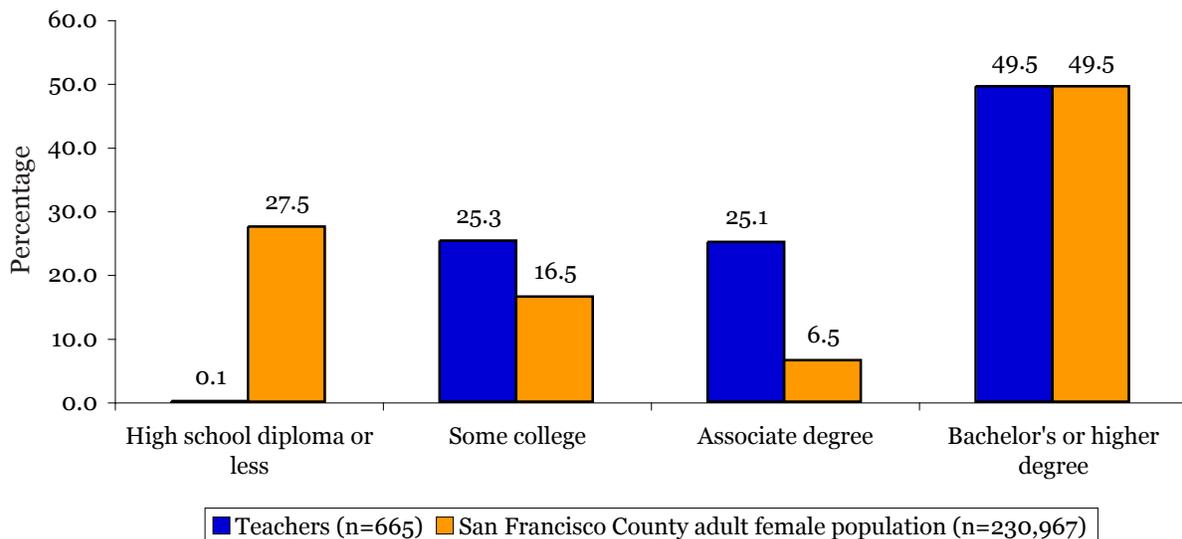
Research has indicated that the presence of better-trained adults enhances the quality of child care services for children (Whitebook & Sakai, 2004; Shonkoff & Phillips, 2000). Because of the critical role that teachers' skill and knowledge play in promoting children's optimal development, considerable effort and investment have been devoted to encouraging and supporting teachers, assistants and directors to pursue professional development through CARES and other programs. With the movement toward expansion of publicly funded preschool services, there is also an increased need to assess the size of the task of recruiting and preparing a sufficient number of teachers and assistants who meet higher educational and training standards – i.e., a bachelor's (BA) degree and early childhood certification for teachers, and 48 college credits for assistant teachers. While not all teachers and assistants in publicly funded preschools will be drawn from the current early care and education workforce, many

no doubt will come from its ranks. The educational and training background of the current workforce therefore becomes an important factor in planning the level of resources needed to ensure a well-prepared workforce for preschool classrooms.

Overall Educational Attainment of Teachers, Assistants and Directors

As is true nationally (Herzenberg, Price & Bradley, 2005), we found that center-based teachers in San Francisco County typically had completed some college credits, and were more likely than the average adult woman in the county to have done so. As shown in Figure 3-7, virtually all teachers (99.9 percent) had completed some college-level work, compared to 72.5 percent of women in San Francisco County. Teachers reported a higher completion rate for an associate degree (25.1 percent) than is true for the average adult female in the county (6.5 percent). Teachers' completion rates for

Figure 3.7. *Estimated Educational Attainment of Center Infant and/or Preschool Teachers, Compared to the San Francisco County Adult Female Population*



BA or higher degrees¹⁶ (49.5 percent) matched that of women in the county as a whole (49.5 percent).

Not all centers employed teachers with a four-year or higher degree; 20.4 percent employed no teachers with such degrees. In centers that employed at least one teacher with a four-year or higher degree, 58.5 percent of teachers, on average, held such degrees. (See Table 3.31.) More than two-fifths of all assistant teachers (44.8 percent) had completed one to 23 college credits related to early childhood development. In centers employing at least one assistant who had completed one to 23 credits, 74.1 percent of assistants, on average, had done so.

As shown in Figure 3.8, the vast majority of assistants (93.5 percent) had also completed some college-level work, and they were more likely than the average female in the county to have done so. Assistants had completed two-year degrees at a higher rate (18.0 percent) than the average adult female in San Francisco County, but at a lower rate than teachers. Assistants had completed four-year or higher degrees at a lower rate (14.1 percent) than teachers or adult females in the county.

Not all centers employed assistant teachers with AA or higher degrees; such assistants were concentrated in 35.4 percent of centers. In centers that employed at least one assistant teacher with an AA, an average of 47.1 percent of assistants held AA degrees, and 44.2 percent held BA or higher degrees. (See Table 3.31.)

¹⁶ We asked directors whether teachers had obtained four-year or higher degrees, but we did not collect independent information on the percentage of teachers with graduate degrees.

Ninety-five (94.6) percent of directors had completed an AA or higher degree. Nearly ninety (87.5) percent had completed a BA or higher degree, as shown in Figure 3.8. Seven (7.1) percent had completed an AA degree. Overall, 89.4 percent of centers had at least one director with a BA or higher degree.

Degree Attainment Through a Foreign Institution

Among the 49.5 percent of teachers who had earned a four-year or higher degree, 15.3 percent were reported to have obtained it through a foreign institution. These teachers were concentrated, however, in 39.3 percent of the centers across the county.

Among the approximately 32.0 percent of assistants who had earned an AA or higher degree, 13.8 percent had obtained it through a foreign institution, according to director reports. These assistant teachers were concentrated in only 31.6 percent of centers.

Most directors (87.5 percent) had obtained four-year or higher degrees. Of these, 19.4 percent had obtained their degrees through a foreign institution.

Education, Training and Certification Related to Early Childhood Development

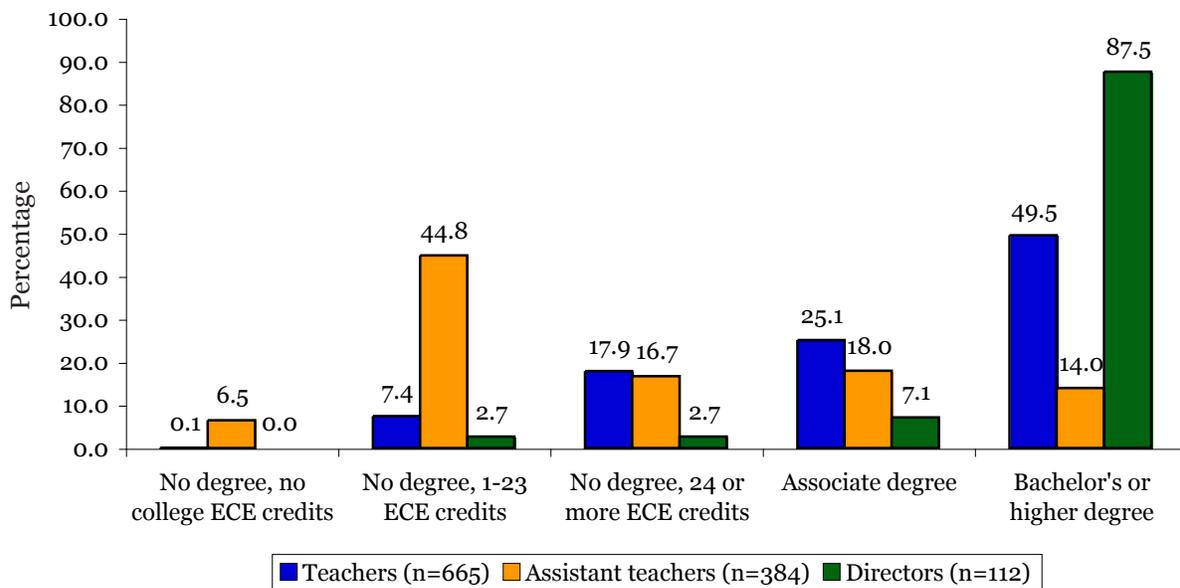
Research findings on the contribution of education and training to teaching staff competence and sensitivity suggest that formal higher education with a specific focus in early care and education leads to more effective care and teaching with children (Barnett, 2003; Whitebook, 2003; Zaslow & Martinez-Beck, 2005). Thus, another important aspect of professional preparation is the extent

Table 3.31. Estimated Mean Percentage of Teachers and Assistant Teachers Employed in Centers, By Educational Level:^a Countywide

	Estimated mean percentage (SE)				
	No degree, no college ECE credits	No degree, 1-23 ECE credits	No degree, 24 or more ECE credits	Associate degree	Bachelor's or higher degree
Teachers	4.8	36.6	43.0	40.1	58.5
	-	(6.00)	(3.60)	(2.50)	(2.92)
<i>Number of centers</i>	1	22	48	79	90
Assistant teachers	54.9	74.1	52.2	47.1	44.2
	(9.81)	(4.20)	(6.16)	(4.17)	(5.87)
<i>Number of centers</i>	12	47	26	29	28

^a Includes only centers with at least one staff member with that level of education.

Figure 3.8. Estimated Educational Attainment of Center Infant and/or Preschool Teachers, Assistant Teachers and Directors: Countywide



to which teachers and assistants have received training, completed coursework, or participated in activities specifically focused on issues related to early childhood development. Research also suggests the important contribution played by director education and stability to overall center quality (Whitebook & Sakai, 2004; Helburn, 1995). To acquire a picture of the professional preparation of teachers, assistants and directors, we asked directors whether they or their teaching staff:

1. had completed a two-year or four-year degree related to early childhood development;
2. had taken college courses related to early childhood development if they had not completed a two-year or four-year degree; and/or
3. had participated in a professional development program or obtained a professional credential.

1) Degrees Related to Early Childhood Development

We examined the percentage of teachers, assistant teachers and directors with AA and BA degrees whose degree was related to early childhood development, and whether those with an AA or BA degree were more likely to have completed such a degree.

Overall, 49.5 percent of teachers had completed a BA degree or higher, and 17.9 had completed an AA degree. More than one-half of teachers with a BA or higher degree (58.5 percent) and 79.5 percent of teachers with an AA degree had obtained an early childhood-related degree.

Overall, 32.0 percent of assistant teachers had completed an AA, BA or higher degree. More than two-fifths of

assistants with an AA or higher degree (44.8 percent) had obtained a degree with an early childhood focus.

Overall, 87.5 percent of directors had completed a BA degree or higher, and 71.0 percent had completed an AA degree. Two-thirds (67.3 percent) of directors with a BA or higher degree and 100.0 percent of directors with an AA degree had obtained a degree related to early childhood.

Among infant and preschool teachers across all levels of educational attainment, 27.4 percent had earned a four-year degree or higher with an early childhood focus, and 18.0 percent had earned an AA degree with an early childhood focus. Among directors across all levels of educational attainment, 57.9 percent had earned a four-year degree or higher, and 7.1 percent had earned an AA degree, with an early childhood focus.

2) College Credits Related to Early Childhood Development

We were interested in knowing the extent to which teachers, assistant teachers and directors who had not completed degrees had participated in specialized early childhood-related education, and thus examined what percentage had completed from one to 23, or 24 or more, early childhood-related college credits.

Slightly less than one-quarter of all teachers across the county (25.3 percent) had completed such college credits but had not completed a degree. Eighteen (17.9) percent of teachers had completed 24 or more credits, and 7.4 percent had completed from one to 23 credits, of early childhood-related coursework. Less than one percent of all teachers had completed

neither a college degree nor any college credits related to early childhood.

Most assistant teachers (68.0 percent) had not completed a two-year or higher degree, but most had completed at least some college credits related to early childhood. Directors reported that 44.8 percent of assistant teachers had completed from one to 23 credits, 16.7 percent had completed 24 or more credits, and only 6.5 percent had completed neither credits nor a degree.

About five (5.4) percent of directors across the county had not completed a two-year or higher degree. They were evenly divided between those who had completed 24 or more credits (2.7 percent) and those who had completed 1 to 23 credits (2.7 percent). None had completed neither a degree nor college credits related to early childhood.

3) Participation in Professional Development Activities or Certification

Another measure of professional preparation is involvement with professional development activities and/or certification processes. We asked directors:

- whether they had heard of the CARES program, and whether their teachers or assistants currently participated in it;
- whether they or their teachers held a Child Development Permit issued by the California Commission on Teacher Credentialing; and
- whether they or their teachers held a Teacher Credential issued by the California Commission on Teacher Credentialing and/or by an equivalent agency in another state.

CARES

We asked directors whether they were familiar with CARES, and 92.1 percent of such directors were. We then asked whether their teachers or assistant teachers were currently CARES participants, and directors reported that 61.4 percent of teachers and 45.1 percent of assistant teachers were. More than three-quarters of centers (76.5 percent, SE=4.30) reported employing at least one teacher who was a CARES participant, and nearly two-third of centers (62.7 percent, SE=5.62) reported employing at least one assistant teacher who was a CARES participant. In centers that employed at least one CARES participant, the majority of teachers (76.4 percent, SE=3.10) and assistants (75.4 percent, SE=4.40) appeared to be participants.

Child Development Permits

The California Commission on Teacher Credentialing issues Child Development Permits for teachers, assistant teachers and directors that reflect different levels of education and specialized training. These permits are required in programs holding contracts with the California Department of Education (CDE), and are increasingly required of participants in CARES programs. We asked directors what percentage of their teachers and assistant teachers with two- or four-year degrees also held a permit.

More than two-thirds (68.5 percent) of all teachers with a BA or higher degree, and 63.1 percent of teachers with an AA degree, held a Child Development Permit, according to directors' reports. Among all teachers with an AA or higher degree, 66.5 percent held a permit. More than one-third (38.4 percent) of assistant teachers with an AA or higher degree held a permit.

We did not collect information about permits for non-degreed teachers.

Directors were asked whether they held a Site Supervisor Permit intended for program or site directors; 65.3 percent of directors with a BA or higher degree, and 50.0 percent of directors with an AA degree, did so.

Teaching Credentials

A teaching credential, in contrast to a Child Development Permit, requires the holder to have completed a BA degree at a minimum, and typically the equivalent of a fifth year of college coursework. We asked whether directors or teachers who had completed a BA or higher degree held a teaching credential issued by the State of California or another state.¹⁷

Among all teachers who had earned a BA or higher degree, 25.7 percent held a California teaching credential, and 3.3 percent held a credential from another state. Among all teachers in the county (including those with BA or higher degrees, or with lower levels of educational attainment), 11.6 percent held a California teaching credential. Among all directors who had earned a BA or higher degree, 34.7 percent held a California teaching credential and 13.3 percent held one from another state.

¹⁷ See Bellm, Whitebook, Cohen & Stevenson (2004) for a description of the credentialing options in California related to early care and education. For this question, we did not ask respondents to specify the type of credential that teachers or directors held; thus, their answers could include early childhood-related or K-12 credentials. While the Standard Early Childhood Credential is no longer issued, the credential is still honored, though not required as a condition of employment, in most, if not all, settings.

How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?

Levels of education among teachers, assistant teachers and directors vary by ages of children served. Centers that enroll both infants and preschoolers report a somewhat lower percentage of teachers with BA or higher degrees than those enrolling preschoolers but no infants. Centers that enroll both infants and preschoolers also report lower levels of educational attainment among their assistants compared to centers enrolling preschoolers but no infants.

Educational attainment also varies by centers' relationship to public subsidy. Centers receiving no public dollars report a higher percentage of teachers and directors who have obtained a BA or higher degree than all other centers. Centers receiving public dollars through vouchers report higher levels of AA degree attainment among their teachers than contracted centers or those receiving no public dollars. Teachers in contracted centers are the most likely to hold a Child Development Permit.

Educational attainment varies among teachers by demographic characteristics. Teachers with bachelor's or higher degrees are older, on average, than those with less education. Teachers' educational attainment also varies by ethnicity and language: among those with bachelor's or higher degrees, compared to the ethnic distribution among the teacher population as a whole, White, Non-Hispanic are over-represented, African American and Asian/Pacific Islander teachers are represented proportionately, while Latinas are under-represented. About 38 percent of Asian/Pacific Islander, 65 percent of White, Non-Hispanic, 38 percent of African American and 26 percent of Latina teachers have completed a BA or higher degree. Latina, African American and Asian/Pacific Islander teachers have attained BA or higher degrees at higher rates than their counterparts in the overall county population. White, Non-Hispanic teachers are likely to have earned a BA or higher degree at similar rates compared to other White, Non-Hispanic San Francisco County adults.

With respect to linguistic capacity, teachers with AA degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with no degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, there is little or no variation by educational attainment in the percentage of those who speak a language other than English fluently.

In the previous section, we described the educational attainment and early childhood-related professional development of center-based teachers, assistants and directors employed in centers licensed to serve infants and/or preschoolers across San Francisco County as a whole. Here, we explore differences within the workforce along these dimensions based on:

- the ages of children enrolled in centers,
- whether centers receive public dollars to care for children of low-income families,
- teaching staff compensation and turnover in centers, and
- such teacher, assistant teacher and director demographic characteristics as age, ethnicity and language background.

Overall Educational Attainment and Professional Certification, by Ages of Children Served

Because of proposed increases in qualifications for teachers or assistant teachers working in publicly funded programs targeting four-year-old children, there is considerable interest in whether teachers who currently work with preschoolers differ in educational attainment from those working with younger children. We examined whether centers that enrolled only preschoolers varied in the overall educational level of their teachers and assistants from those that enrolled both infants and

preschoolers.¹⁸

As shown in Table 3.32, centers that enrolled infants reported a somewhat lower percentage of teachers with BA or higher degrees than centers serving preschoolers but no infants. Centers serving infants also reported lower levels of educational attainment among assistants. Director educational attainment varied little whether centers enrolled infants or not.

We also examined the extent to which focused education related to early childhood development and certification varied between the teaching staff in centers serving infants and preschoolers and those not serving infants. Centers serving preschoolers but no infants (60.3 percent, SE=5.97) were more likely, on average, to employ at least one teacher with a California teaching credential than centers serving infants and preschoolers (33.3 percent, SE=11.2). Centers serving preschoolers but no infants also employed a higher percentage of such teachers (51.3 percent, SE=4.28) than centers serving infants and preschoolers (26.6 percent, SE=7.92). There were no differences in the percentage of teachers with Child Development Permit based on the ages of children served.

¹⁸ Because there were so few programs licensed to serve infants exclusively, we could not compare those programs to those that serve preschoolers exclusively. Also, because of the complexity of staffing patterns as well as limitations on the length of the survey, we were not able to ask directors to report separately on the characteristics of teachers working exclusively with younger children and those working with older children.

Table 3.32. Estimated Educational Attainment of Teachers, Assistant Teachers and Directors, By Ages of Enrolled Children: Countywide

		Estimated percentage					Number of staff
		Bachelor's degree or higher	Associate degree	24 or more ECE credits	1-23 ECE credits	No degree, no ECE credits	
Teachers	Centers enrolling infants ^a	37.2	25.6	22.1	15.1	0.0	199
	Centers without infants	54.7	24.9	16.1	4.1	0.2	466
	All centers	49.5	25.1	17.9	7.4	0.1	665
Assistant teachers	Centers enrolling infants ^a	7.8	6.4	5.0	70.9	9.9	141
	Centers without infants	17.7	24.7	23.5	29.6	4.5	243
	All centers	14.0	18.0	16.7	44.8	6.5	384
Directors	Centers enrolling infants ^a	87.5	2.5	5.0	5.0	0.0	40
	Centers without infants	87.5	9.7	1.4	1.4	0.0	72
	All centers	87.5	7.1	2.7	2.7	0.0	112

^aMost of these centers also enroll older children.

Overall Educational Attainment, and Early Childhood-Related Training, by Centers' Relationship to Public Funding

Research suggests that children of low-income families derive greater benefit from higher-quality early care and education programs than do children of middle- and upper-income families (Helburn, 1995). Studies have found programs rated higher in quality to be staffed by teachers and assistant teachers with higher levels of education, and with training specifically focused on early childhood (Helburn, 1995; Galinsky, Howes, Kontos & Shinn, 1994; Whitebook, Howes & Phillips, 1990; Whitebook & Sakai, 1995).

In California, staff in centers receiving public dollars to serve children of low-income families are required to meet different standards, depending on whether their center holds a contract with Head Start or the California Department of Education (CDE), or receives vouchers for children of low-income families. In centers holding contracts, instructional and administrative staff are required to meet higher educational standards than those in centers receiving public dollars through vouchers. Staff working in centers receiving vouchers are not required to meet any additional qualifications beyond what is required for centers receiving no public dollars. Although some centers may set qualifications at a higher level, centers receiving vouchers and centers receiving no public dollars are only required by law to meet the standards mandated by Community Care Licensing.

We found that teachers' educational attainment varied by centers' relationship to public subsidy. As shown in Figures 3.9 and 3.10, centers receiving no public

dollars reported a higher percentage of teachers and directors who had obtained a BA or higher degree. Assistant teachers in contracted centers had lower levels of BA degree attainment than their counterparts in other types of programs, but were more likely to have completed 24 or more units related to early childhood education, as shown in Figure 3.11.

There were no differences among centers with varying relationships to public subsidy with respect to the percentage of centers employing at least one teacher with a BA or higher degree and a California teaching credential. Centers holding a contract with CDE or Head Start employed the highest percentage of teachers and assistants with Child Development Permits, as shown in Table 3.33.

Overall Educational Attainment, by Teacher and Assistant Demographic Characteristics

Among teachers and assistant teachers with different levels of education, we examined such characteristics as age, ethnicity and language background.

1) Overall Educational Attainment, by Age

Two intertwined concerns arise with regard to the age distribution among teachers and assistants with different levels of educational attainment:

- Is the field attracting younger people to its ranks?
- Are new recruits more or less educated and trained than older, more tenured members of the workforce?

Recent research has documented an alarming national trend of educational

Figure 3.9. *Estimated Educational Attainment of Teachers, By Centers' Relationship to Public Subsidy: Countywide*

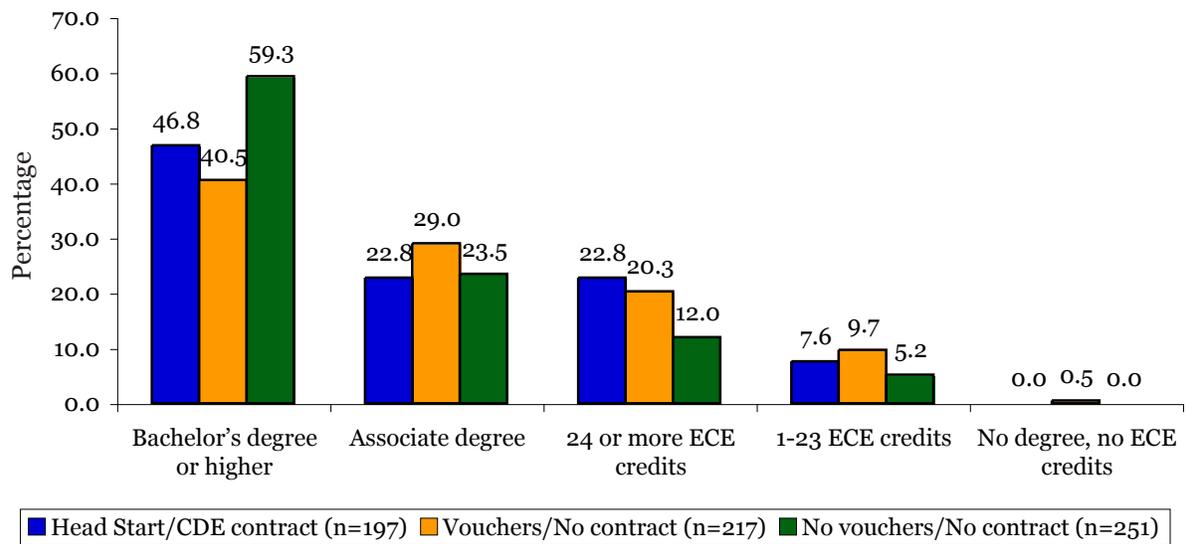


Figure 3.10. *Estimated Educational Attainment of Directors, By Centers' Relationship to Public Subsidy: Countywide*

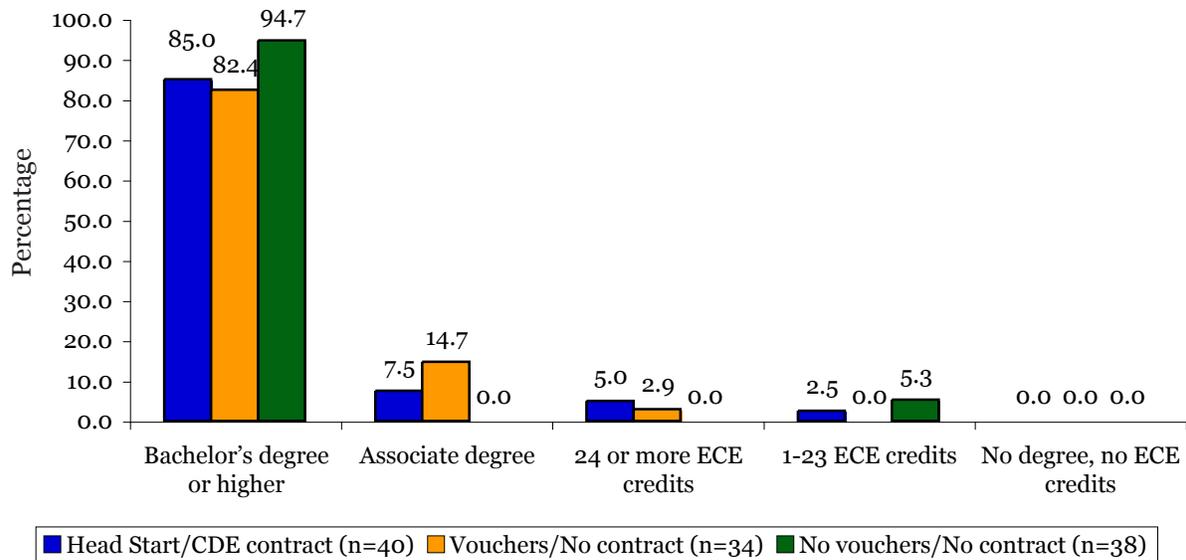


Figure 3.11. *Estimated Educational Attainment of Assistant Teachers, By Centers' Relationship to Public Subsidy: Countywide*

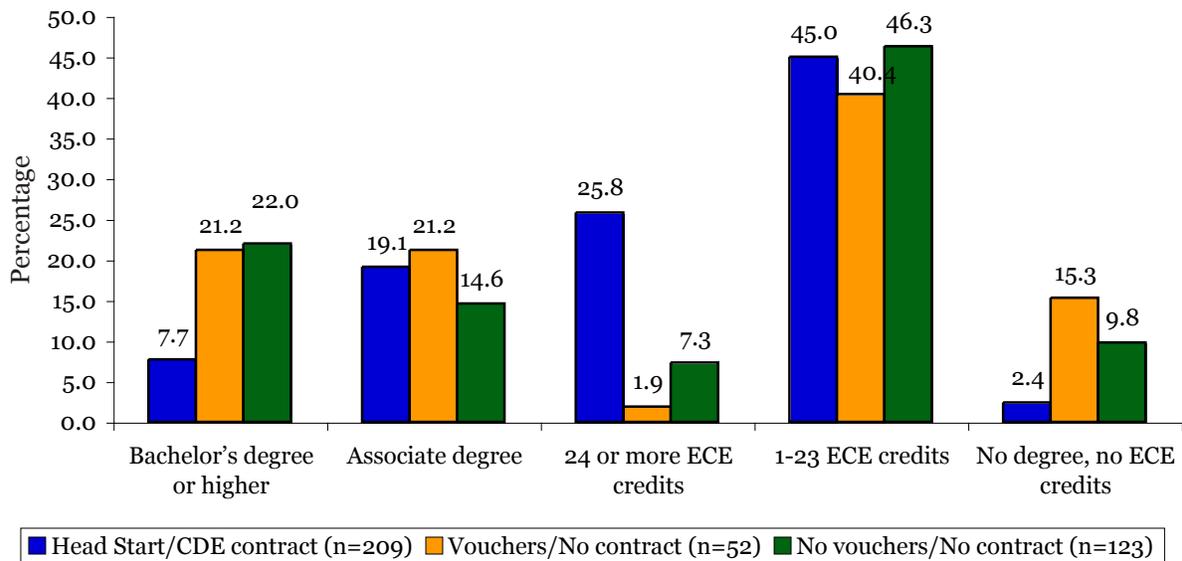


Table 3.33. *Estimated Mean Percentage of Teachers with Child Development Permits In Centers Employing at Least One Such Teacher: Countywide, and By Centers' Relationship to Public Subsidy*

	Estimated average percentage (SE)		
	Teachers with a bachelor's or higher degree*	Teachers with an associate degree	Assistants with associate degree or higher
Head Start/CDE contract	96.9 (1.53)	99.1 (0.88)	78.2 (6.42)
<i>Number of centers</i>	29	28	15
Vouchers/No contract	75.4 (7.20)	83.9 (8.97)	41.7 (5.97)
<i>Number of centers</i>	14	12	2
No vouchers/No contract	71.5 (5.78)	88.0 (5.55)	48.3 (21.42)
<i>Number of centers</i>	26	16	3
Countywide	83.0 (3.06)	92.7 (2.68)	70.1 (6.65)
<i>Number of centers</i>	69	56	20

* $p < .05$, Head Start/CDE contract > Vouchers/No contract, No vouchers/No contract.

decline among the early care and education workforce, with particular concern that the most educated segment of the workforce is approaching retirement at a time when proposed qualifications for teachers are increasing (Herzenberg, Price & Bradley, 2005). As shown in Table 3.34, teachers with BA or higher degrees were somewhat older, on average, than teachers with less education. About one-fifth of such teachers (21.8 percent) were age 50 or older, compared to 17.8 percent of teachers with AA degrees, and 12.7 percent of teachers with no degrees. These patterns were also identified among centers serving preschool children but no infants, and in programs holding contracts with Head Start or CDE. Among assistant teachers there was little variation in age by educational attainment.

2) Overall Educational Attainment, by Ethnicity

We examined teacher and assistant teacher ethnicity and educational background along three dimensions:

1. the ethnic distribution of teachers and assistants across different levels of formal education,
2. the distribution of educational attainment within various ethnic groups, and
3. the ethnic distribution of teachers and assistant teachers at different levels of education, compared to that of San Francisco County's adult population.

Combined, these analyses provide a picture of how well teachers and assistant teachers of various ethnic groups are represented at different educational levels, how this distribution reflects general trends in the population, and where

supports and incentives might be directed toward particular ethnic groups in order to boost their educational attainment.

The ethnic distribution of teachers and assistant teachers varied across levels of educational attainment, as shown in Table 3.35. White, Non-Hispanic teachers comprised 33.0 percent of all teachers, and they comprised 42.9 percent of teachers with a BA or higher degree. Latinas comprised 15.8 percent of all teachers, but only 8.1 percent of teachers with a BA or higher degrees. African American teachers comprised 11.5 percent of all teachers, and 8.7 percent of teachers with a BA or higher degree (8.7 percent). Asian/Pacific Islanders constituted 32.1 percent of all teachers, and 34.1 percent of those who reported a BA or higher degree as their highest level of educational attainment. Assistant teachers from various ethnic groups were represented proportionately among assistant teachers with different levels of educational attainment.

In determining the distribution of educational attainment (as represented by completion of degrees) within various ethnic groups, we found that 64.5 percent of White, Non-Hispanic, 37.8 percent of African American, 25.7 percent of Latina, and 50.2 percent of Asian/Pacific Islander teachers had completed a four-year degree or higher. (See Table 3.36). Among assistant teachers, 38.3 percent of White, Non-Hispanics, 35.1 percent of Asian/Pacific Islanders, 31.3 percent of Latinas, and 23.7 percent of African Americans had completed a two-year or higher degree.

Next, we sought to determine the ethnic distribution of teachers at different levels of education, as compared to San Francisco County's overall adult

Table 3.34. Estimated Percentage of Teachers, By Age and Educational Attainment: Countywide

	Estimated percentage			
	All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree
Under 30 years old	24.5	24.3	21.5	28.0
30 to 39 years old	31.7	32.7	37.4	23.8
40 to 49 years old	25.3	21.2	23.3	35.4
50 years and older	18.5	21.8	17.8	12.8
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of staff</i>	648	321	163	164

Table 3.35. Estimated Percentage of Teachers and Assistant Teachers, By Ethnicity and Educational Attainment: Countywide

	Estimated percentage						
	All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistant teachers with associate or higher degree	Assistant teachers with no degree
White, Non-Hispanic	33.3	42.9	29.7	17.4	15.5	18.1	14.2
Latina	15.8	8.1	21.8	25.2	20.7	19.7	21.2
African American	11.5	8.7	12.8	16.1	15.2	11.0	17.3
Asian/Pacific Islander	32.1	34.1	32.1	36.1	43.4	46.4	41.9
American Indian or Alaskan Native	0.8	0.3	1.8	0.7	0.3	0.8	0.0
Multiethnic	3.1	4.3	1.8	1.9	2.1	1.6	2.3
Other	1.4	1.6	0.0	2.6	2.8	2.4	3.1
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Number of teachers</i>	642	322	165	155	387	127	260

population. For example, were Latina teachers more or less likely than other Latino adults in San Francisco County to have achieved a BA degree? To make this comparison, we examined data from the 2000 U.S. Census on San Francisco County adults' attainment of BA or higher degrees. Latina, African American, and Asian/Pacific Islander teachers had attained BA or higher degrees at higher rates than their counterparts in the overall state population (all Latino adults, 20.3 percent; all African American adults, 18.1 percent; all Asian/Pacific Islander adults, 31.6 percent). White, Non-Hispanic teachers had attained BA or higher degrees at similar rates to all White, Non-Hispanic San Francisco County adults (63.2 percent).

3) Overall Educational Attainment, by Language

Since many of San Francisco County's young children speak a first language other than English, and many have parents with limited English proficiency, there is understandable concern about the ability of the early care and education workforce to communicate well with children and their adult family members, and to create learning environments for children that build upon their first language as a foundation for successful mastery of English (Garcia, 2005; Sakai & Whitebook, 2003; Wong-Fillmore & Snow, 1999). Because of the commonly shared goal among policy makers and advocates to build not only a more educated but an ethnically and linguistically diverse early care and education workforce (Calderon, 2005), it is important to understand how language capacity varies among teachers and assistant teachers with different levels of educational attainment, in order to design

and target professional development resources.

The following is an analysis of educational attainment by language, but it is important to note that language ability was reported by directors, rather than independently verified; we also were unable to determine whether teachers and assistants who spoke a language besides English fluently were also fluent in English. Finally, this study does not permit us to assess whether or not there was a linguistic match between teaching staff and the children they served.

Our analyses focused on the percentage of teachers and assistants at different educational levels who had the director-reported capacity to communicate with children in a language other than English. Across all educational levels, 52.6 percent of teachers and 60.4 percent of assistant teachers had such a capacity. Teachers with AA degrees were somewhat more likely than either teachers with BA or higher degrees or teachers with no degrees to have this capacity, as shown in Table 3.37. We do not know, however, which teachers at any educational level were bilingual, and which spoke a language other than English fluently but were limited in their English skills.

Among assistant teachers, there was no virtually no difference in the percentage of those with an AA or higher degree (61.0 percent) and those with no degree (60.9 percent) who speak a language other than English fluently.

Table 3.37 also shows the percentage of teachers at various educational levels, by center type, with this director-reported linguistic capacity. Centers serving infants and preschoolers employed a higher percentage of such teachers at

all educational levels than centers not serving infants, most notably teachers with degrees. Centers holding a contract with Head Start or CDE employed a higher percentage of teachers who could communicate fluently with children and families in a language other than English than centers receiving vouchers or those receiving no public funding. Centers receiving vouchers employed a somewhat more linguistically diverse teaching staff than centers receiving no public funding.

Table 3.36. Estimated Percentage of Teachers with a Bachelor’s Degree or Higher, Associate Degree, or No Degree, By Ethnicity: Countywide

	Estimated percentage				Number of teachers
	Bachelor's or higher degree	Associate degree	No degree	Total	
White, Non-Hispanic	64.5	22.9	12.6	100.0	214
Latina	25.7	35.6	38.6	100.0	101
African American	37.8	28.4	33.8	100.0	74
Asian/Pacific Islander	50.2	24.2	25.6	100.0	219

Table 3.37. Estimated Percentage of Teachers at Different Levels of Educational Attainment Who Speak A Language Other Than English Fluently: Countywide, By Ages of Enrolled Children, and By Centers' Relationship to Public Subsidy

	Estimated percentage (SE)		
	Teachers with bachelor's degree or higher	Teachers with an associate degree	Teachers with no degree
Countywide	49.5	58.3	54.4
<i>Number of teachers</i>	329	163	169
Centers enrolling infants ^a	52.7	63.8	55.4
<i>Number of teachers</i>	74	47	74
Centers without Infants	48.6	56.0	53.7
<i>Number of teachers</i>	255	116	95
Head Start/CDE contract	62.0	60.0	68.3
<i>Number of teachers</i>	92	45	60
Vouchers/No contract	54.5	57.1	62.1
<i>Number of teachers</i>	88	63	66
No vouchers/No contract	38.9	58.2	23.3
<i>Number of teachers</i>	149	55	43

^aMost of these centers also enroll older children.

How well prepared are center-based teaching staff to care for and educate children who are dual language learners or have special needs?

Less than one-half of centers employ teachers who have participated in non-credit training focused on dual language learning in young children, and about one-third of centers employ teachers who have completed college coursework in that subject, despite the growing numbers of young children in San Francisco County who speak a language other than English in their homes.

Many more teachers have participated in professional development related to working with children with special needs. Three-fourths of centers report that at least one of their teachers has participated in non-credit training, and about two-thirds report that at least one teacher has completed college credits, related to children with special needs. Centers that report caring for at least one child with special needs also report a higher percentage of teachers with training and education to work with such children.

As San Francisco County considers how best to prepare its workforce to meet the needs of its young children, particular concern centers on two groups of children:

- the growing number who are dual language learners, many of them from immigrant families; and
- the growing number who have been identified as having special developmental needs.

A pressing question is whether the current early care and education workforce has sufficient skill and knowledge to meet the needs of these children. While it was beyond the scope of this study to assess the overall knowledge and competencies of center-based teaching staff, our interview did allow some initial exploration of

teachers'¹⁹professional preparation related to dual language learners and/or children with special needs.

Preparation to Work with Young Children Acquiring a Second Language

In 2005, nearly one-half of children entering public kindergarten in San Francisco County were estimated to be dual language learners (California Department of Education, 2005). According to recent projections of the growth of this segment of California's population over the next several decades (Hill, Johnson & Tafoya, 2004), it is likely that soon the majority of young children receiving early care and education services in the state will be dual language learners and/or living in families in which some or all of the adults do not speak English.

¹⁹ Directors were asked the number of teachers in their centers who had participated in credit-bearing coursework or non-credit training focused on working with children who were dual language learners and/or those with special needs. Because of concern about the length of the survey, these questions were not asked with respect to directors or assistants.

In this survey, we were able only to investigate which languages teachers spoke, not the languages spoken by children in their care. We know, however, from anecdotal reports that a sizeable portion of center teachers in San Francisco County either care for children for whom English is a second language or will likely be called upon to do so over the course of their careers. We also know from a recent survey of early childhood teacher preparation programs in California institutions of higher education (Whitebook, Bellm, Lee & Sakai, 2005) that only one-quarter of these programs require a course focused on second-language acquisition in young children, suggesting that exposure to professional development around these issues through college courses is limited.

Our goal was to ascertain the extent to which teachers had received any training focused on this topic, by asking directors whether their teachers had participated in relevant credit-bearing courses and/or non-credit training. Many had not: directors reported that, on average, 30.8 percent of teachers had received non-credit training, and only 17.9 percent had completed college coursework, focused on dual language learning in young children. (See Table 3.38.) We estimate that 54.5 percent of centers had no teachers with non-credit training, and 61.5 percent had no teachers who had taken college courses, related to dual language learning in children. (See Table 3.39.)

There were differences between centers serving infants and those serving only older children with respect to teacher professional preparation related to working with dual language learners. In centers serving infants, on average, 6.3 percent of teachers (SE=5.3) had

participated in non-credit training related to dual language learning, compared to 36.5 percent of teachers (SE=4.6) in centers serving only older children. There were no statistically significant differences related to teachers who had participated in credit-bearing courses.

The average percentage of teachers who had participated in professional development related to dual language learning varied by the centers' relationship to public subsidies. As shown in Figure 3.12, centers operating under a contract with Head Start or the California Department of Education reported that about one-half of teachers, on average, had participated in non-credit training related to dual language learning in young children. Centers receiving no public dollars or those receiving vouchers for at least one child reported a smaller percentage of teachers who had participated in such professional development.

We next examined whether centers employing at least one teacher with either non-credit training or college credits related to dual language learning in children varied with respect to the percentage of teachers with AA or higher degrees. As shown in Table 3.40, centers with at least one teacher with credit-bearing courses in this subject reported that 53.7 percent of teachers had a BA degree or higher, compared to 38.5 percent of teachers in centers that had no teachers with such credit-bearing education. The opposite pattern occurred for teachers with AA degrees. Centers with at least one teacher with credit-bearing courses in this subject reported that 21.2 percent of teachers had an AA degree, compared to 33.6 percent of teachers in centers that had no teachers with such

Table 3.38. Estimated Mean Percentage of Teachers with At Least One Hour of Non-Credit Training and/or One College Credit Related to Dual Language Learning Children: Countywide

	Estimated percentage (SE)
Non-credit training	30.8 (4.06)
<i>Number of centers</i>	101
College credits	17.9 (3.15)
<i>Number of centers</i>	91

Table 3.39. Estimated Percentage of Centers Employing at Least One Teacher With Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Countywide

	Estimated percentage (SE)
At least one teacher with non-credit training	45.5 (4.98)
<i>Number of centers</i>	101
At least one teacher with college credits	38.5 (5.13)
<i>Number of centers</i>	91

Figure 3.12. Estimated Mean Percentage of Teachers with Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Countywide, and by Centers' Relationship to Public Subsidy

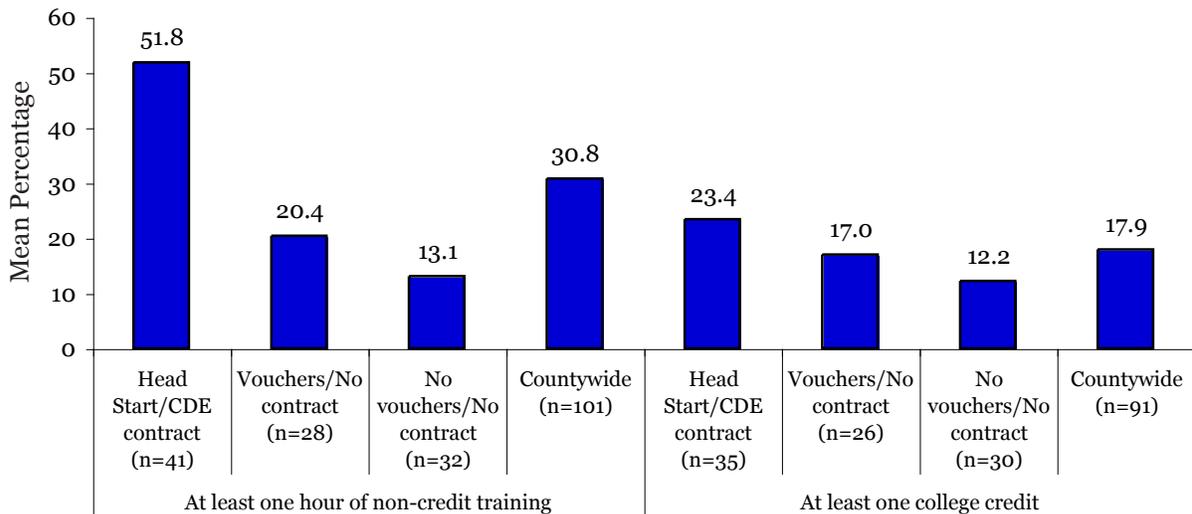


Table 3.40. Estimated Mean Percentage of Teachers with Associate or Higher Degrees in Centers with and without Teachers with Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Countywide

	Mean percentage (SE)	
	Teachers with an associate degree*	Teachers with a bachelor's degree or higher**
No teachers with non-credit training	27.6 (3.61)	45.2 (4.71)
<i>Number of centers</i>	55	55
At least one teacher with non-credit training	29.2 (3.64)	49.8 (5.14)
<i>Number of centers</i>	46	46
No teachers with college credits	33.6 (3.81)	38.5 (4.50)
<i>Number of centers</i>	56	56
At least one teacher with college credits	21.2 (3.31)	53.7 (6.04)
<i>Number of centers</i>	35	35

*p < .05, Centers with at least one teacher with college credits < centers with no such teachers.

**p < .05, Centers with at least one teacher with college credits > centers with no such teachers.

credit-bearing education.

Centers with at least one teacher who had participated in training or coursework related to dual language learning did not differ from centers with no such teachers with respect to the average percentage of teachers who spoke a language other than English.

Preparation to Work with Young Children With Special Needs

Over the last 30 years, the deepening understanding of and ability to identify developmental challenges, coupled with changes in federal law,²⁰ have led to the increased involvement of early childhood settings in providing services to children with special physical and developmental needs and/or disabilities (Shonkoff & Phillips, 2000). Recognizing that the early care and education workforce was being increasingly called upon to provide such services, the California Legislature passed SB 1703 in 2000, supporting local child care resource and referral programs and child care planning councils in providing training related to children with special needs. This funding was renewed in 2005.

²⁰ Two federal laws in particular have contributed to the inclusion of children with special needs in early childhood programs. The American with Disabilities Act (ADA), a federal civil rights law passed in 1990, prohibits discrimination by child care centers and family child care providers against individuals with disabilities. The ADA requires centers to assess, on a case-by-case basis, what a child with a disability requires in order to be fully integrated into a program, and whether reasonable accommodation can be made to allow this to happen. In addition, the Individuals with Disabilities Education Act, passed in 1975 and reauthorized in 2004, requires public schools to meet the educational needs of children as young as three with disabilities, guarantees early intervention services to infants and toddlers up to age three in their “natural environments,” and addresses the transition of infants and toddlers from early intervention services to preschool programs. California’s equivalent law, the Early Intervention Services Act, is also known as Early Start (Child Care Law Center, 2005).

Table 3.41. *Estimated Percentage of Centers Employing at Least One Teacher with Non-Credit Training and/or College Credits Related to Children with Special Needs: Countywide*

	Estimated percentage (SE)
At least one teacher with non-credit training	75.7 (4.25)
<i>Number of centers</i>	103
At least one teacher with college credit	64.9 (4.95)
<i>Number of centers</i>	94

For this study, we were interested in determining whether center teachers had received professional preparation related to children with special needs. Specifically, we determined:

1. whether or not centers employed any teachers who had participated in special needs-related training or college courses,
2. the average percentage of teachers in centers who had participated in special needs-related training or college courses, and
3. whether centers that reported caring for at least one child with special needs employed a higher percentage of teachers who had participated in relevant education and training.

Overall Levels of Special Needs-Related Training and Courses

Three-fourths of centers (75.7 percent) reported that at least one of their teachers had participated in non-credit training related to children with special needs. A smaller percentage (64.9 percent) reported that at least one teacher had participated in credit-bearing courses on

children with special needs. (See Table 3.41.) As shown in Table 3.42, centers reported, on average, that 63.0 percent of their teachers had participated in non-credit training and 35.8 percent in college courses related to children with special needs.

The average percentage of teachers who had participated in non-credit training and/or college credits related to children with special needs varied by centers' relationship to public subsidy. As shown in Table 3.42, centers that held a contract with Head Start or CDE reported significantly higher percentages of teachers who had participated in special needs-related training or college courses than did centers receiving vouchers or receiving no public dollars.

As shown in Table 3.43, there were no statistically significant differences in educational levels of teachers between centers reporting at least one teacher with special needs-related training and/or education and centers with no such teachers. In addition, the average percentage of teachers who had participated in special needs-related training and/or education did not vary by the age of children served in the center.

Special Needs-Related Credits and Training, by Number of Children with Special Needs Served

Overall, 56.8 percent of centers (SE=4.72) reported caring for at least one child with special needs. As shown in Tables 3.44 and 3.45, centers caring for at least one such child employed a higher percentage of teachers who had participated in special needs-related non-credit and/or and credit-bearing training than centers caring for no such children. Among centers caring for at least one

child with special needs, 75.5 percent of teachers had participated in relevant non-credit training, whereas only 44.8 percent of teachers had received such non-credit training in centers with no children with special needs. Centers that enrolled at least one child with special needs reported a greater proportion of teachers (47.1 percent) who had completed special needs-related college credits than did centers not enrolling any such children (20.7 percent).

Table 3.42. Estimated Mean Percentage of Teachers with Non-Credit Training and/or College Credits Related to Children with Special Needs: Countywide, and by Centers' Relationship to Public Subsidy

	Estimated mean percentage (SE)			
	Countywide	Head Start/CDE contract	Vouchers/No contract	No vouchers/No contract
Non-credit training*	63.0 (4.13)	79.8 (5.69)	58.8 (8.53)	44.1 (6.50)
<i>Number of centers</i>	103	39	28	32
College credits**	35.8 (3.65)	49.1 (6.91)	27.6 (5.38)	28.3 (5.49)
<i>Number of centers</i>	94	35	28	31

* $p < .001$, Head Start/CDE contract > Vouchers/No contract, No vouchers/No contract.

** $p < .05$, Head Start/CDE contract > Vouchers/No contract, No vouchers/No contract.

Table 3.43. Estimated Mean Percentage of Teachers with AA or Higher Degrees, in Centers with and without Teachers with Special Needs-Related Non-Credit Training and/or College Credits: Countywide

	Mean percentage (SE)		
	Teachers with AA Degree	Teachers with a BA or higher degree	Number of centers
No teachers with non-credit training	30.8 (5.95)	36.4 (6.10)	25
At least one teacher with non-credit training	29.0 (2.87)	48.6 (3.97)	78
No teachers with college credits	36.3 (5.67)	40.2 (5.80)	33
At least one teachers with college credits	26.7 (2.89)	49.6 (4.60)	61

Table 3.44. Estimated Mean Percentage of Teachers with Non-Credit Training Related to Children with Special Needs, by Number of Enrolled Children with Special Needs: Countywide

	Estimated mean percentage (SE)
No children with special needs	44.8 (7.12)
At least one child with special needs*	75.5 (4.42)
<i>Number of centers</i>	100

* p < .001, Cares for at least one child with special needs > Cares for no children with special needs.

Table 3.45. Estimated Mean Percentage of Teachers with College Credits Related to Children with Special Needs, by Number of Enrolled Children with Special Needs: Countywide

	Estimated mean percentage (SE)
No children with special needs	20.7 (5.16)
At least one child with special needs*	47.1 (4.64)
<i>Number of centers</i>	92

*p < .001, Cares for at least one child with special needs > Cares for no children with special needs.

Discussion

This report provides the latest comprehensive profile of San Francisco County's center-based early care and education workforce. Here, we briefly comment on the findings we consider most relevant to current efforts to design and improve policies that impact the quality and availability of services for young children prior to kindergarten.

Our study has sought to answer five overarching questions:

1. Who are the teachers, assistant teachers and directors in San Francisco County's licensed child care centers?
2. What are the characteristics of children in San Francisco County child care centers licensed to serve infants and/or preschoolers?
3. What is the level of educational attainment and early childhood development-related training among teachers, assistants, and directors in San Francisco County's child care centers?
4. How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?
5. How well prepared are teachers to care for and educate children who are dual language learners or have special needs?

1) Who are the teachers, assistant teachers and directors in San Francisco County's licensed child care centers?

In San Francisco County, a teacher in a child care center licensed to serve infants and/or preschoolers is equally likely to be White, Non-Hispanic or Asian/Pacific Islander. Assistant teachers are more diverse than directors and teachers, although all levels of staff closely reflect the ethnic distribution of children ages birth to five in the county. Child care teachers and assistant teachers are more ethnically diverse than K-12 teachers. Compared to women in San Francisco County, assistant teachers are more likely to be under age 30 and less likely to be over age 50. About one-half of teachers and directors, and two-thirds of assistant teachers, are able to speak a language other than English fluently, most typically Spanish or Chinese.

These demographic profiles vary, however, by such center characteristics as age group of children served. For example, centers holding a contract with Head Start or CDE that employ at least one teacher able to speak a language other than English employ more such teachers than centers that receive vouchers.

About two-fifths of teachers and one-third of assistant teachers have worked in their present jobs for five years or less, while more than one-half of directors have done so. The highest-paid teachers with a BA earn, on average, \$19.23 an hour. The highest-paid assistants can expect to earn \$12.47 an hour, on average.

San Francisco County's early care and education workforce is more ethnically and linguistically diverse than its teachers of Grades K-12. More than one-half of the county's K-12 teachers, but only about one-third of its child care center teachers, are White, Non-Hispanic. Child care center teachers closely match the diversity of children in the county, and assistant teachers are even more diverse. This richness of linguistic and cultural diversity provides a promising foundation on which to revamp and expand services for San Francisco County's young children.

But this comparison with the K-12 workforce can also obscure the stratification by ethnicity that does exist in the ECE workforce. Although, in general, the workforce is very diverse and reflects the ethnic and linguistic diversity of the county's young children, our data reveal some divisions by ethnicity and

language. For example, approximately 40 percent of directors are White, Non-Hispanic, compared to 16 percent of assistants. Similarly, about three-fifths of assistant teachers can communicate with children in a language other than English, whereas about one-half of teachers and directors report such linguistic skills.

In light of the continuing efforts to upgrade the knowledge and skills of San Francisco County's early care and education workforce – in particular, the proposed increase in educational standards for teachers in publicly funded preschool – the challenge will be to intentionally maintain and expand this workforce diversity. This can only be done by investing in a range of appropriate supports that will truly allow people from a wide spectrum of cultural, educational and financial backgrounds to access professional development

opportunities. A proactive strategy will be essential, including scholarships, tutoring, conveniently scheduled and located classes, and resources for students learning English as a second language. The goal must extend beyond building a diverse workforce to ensuring that such diversity is well distributed across all positions and all types of child care centers.

Another comparison with the K-12 teacher workforce reveals serious instability of staffing in San Francisco County's child care centers. A greater percentage of teachers in child care centers (22 percent in California; 18 percent in San Francisco County) than California public school K-12 teachers (11 percent in California) leave their jobs each year (Alliance for Excellent Education, 2005). Although many centers reported no turnover among teaching staff during the last year, a sizeable portion reported that about one-quarter of their teachers and assistant teachers had left their jobs. Turnover was even higher in programs serving children receiving subsidy. Only about two-fifths of teachers and one-third of assistant teachers, had been working in their centers for more than five years.

Given the documented relationship between turnover and program quality, the persistence of high turnover in the ECE field, often linked with poor compensation, is of serious concern. The highest-paid teachers in this study countywide with BA or higher degrees earned, on average, \$19.23 per hour, or \$39,998 per year, compared to a mean annual salary for San Francisco County K-12 teachers of \$53,751, typically distributed over a shorter work year. Should publicly funded preschool positions become available, at pay levels

comparable to those of K-12 teachers, it is likely that many in the ECE workforce will seek these new opportunities. While this will likely create some disruption, comparable wages carry the possibility of a more stable teacher workforce, at least among teachers of four-year-olds. It is less clear what impact this shift could have on other staff positions – notably assistant teachers, teachers of younger children, and even directors – absent some equivalent overall increase in ECE workforce compensation.

2) What are the characteristics of children in San Francisco County child care centers licensed to serve infants and/or preschoolers?

In San Francisco County, teachers and assistants care for and educate approximately 14,531 children in centers licensed to serve infants and/or preschoolers. Almost 90 percent of the children in these centers are not yet in kindergarten, and 69 percent are between the ages of three and five. Eight percent are children under age two, about 10 percent are age two, and 13 percent are in kindergarten or a higher grade. On average, about five percent of children in these centers are reported by directors to have special needs.

About two-third of centers report caring for at least one child who receives public child care assistance. About 27 percent of centers receive public dollars in the form of vouchers, and 40 percent of centers receive public dollars through a contract with Head Start or the California Department of Education, to cover the cost of care for the subsidized children they serve. Centers vary considerably in size, with 20 percent enrolling 25 or fewer children and 20 percent enrolling over 94 children or more.

Our study provides a picture of the size and organization of centers licensed to serve children birth to five, as well as the children attending these centers in terms of age, special needs, and whether their families receive public subsidies to cover the cost of their care.

With respect to center size and organization, licensed child care centers serving children prior to kindergarten are notably diverse. While the majority of centers are operated on a nonprofit basis, a sizeable portion are publicly operated or organized as for-profit businesses. Although centers, on average, serve about 50 children birth to five years and employ about six teachers and four assistant teachers, one-quarter of centers are very small businesses, and about 15 percent are organizations approaching the size of many elementary schools. On the one hand, this variety speaks to the richness of options available to families, as well as varied opportunities for those seeking to work in or operate child care centers. Yet this diversity also helps to explain the

challenge in reaching consensus about workforce standards, or employee benefits such as health insurance, retirement assistance or professional development, all of which may have different implications depending on a center's size and organization.

With respect to age, the standard practice among centers statewide is to care for children between the ages of two and five. Centers care for more children in the two-to-five age range than under age two, largely because of differing staffing requirements (and associated costs) for serving infants and toddlers. The child composition and financial stability of centers may shift if more spaces become available for four-year-olds through publicly funded preschool.

For many years in California, only centers contracting with CDE or Head Start received public dollars to cover the cost of serving subsidized children. But over the last two decades, public dollars have become available to both for-profit

and nonprofit centers, as well as licensed and license-exempt home-based care. The question arises whether public dollars are being used to provide high-quality services to young children, since centers (and homes) accepting voucher recipients are not required to meet any standards beyond basic licensing requirements, widely acknowledged as minimal at best. Of additional concern is the fact that many contracted centers are reimbursed at a lower rate per child than centers receiving public dollars through vouchers, despite the fact (discussed more fully below) that contracted centers on average employ staff with higher levels of education and more early childhood professional preparation.

While an assessment of quality was beyond the scope of this study, our findings do point to the potential leverage for improving quality that could be linked to the voucher system, since it currently touches such a high proportion of licensed centers in the state. Given the documented benefits to young children from low-income families who attend a high-quality early childhood program (Helburn, 1995), it is fitting to explore how public dollars could be used to upgrade these settings as a way to narrow the achievement gap between children of low-income families and those from better-off families.

Further discussion of children with special needs can be found below, under question 5.

3) What is the level of educational attainment and early childhood development-related training among teachers, assistants, and directors in San Francisco County's child care centers?

Compared to San Francisco County's overall adult female population, teachers working in centers enrolling infants and/or preschoolers are more likely to have attended college and/or completed a two-year degree. They are equally likely to have completed a four-year or higher college degree, and less likely to have completed high school only.

One-half of teachers have completed a four-year or graduate degree, and one-quarter have completed a two-year degree, typically with an early childhood focus. Twenty percent of centers do not employ any teachers with a four-year or higher degree.

Assistant teachers in San Francisco County are also more likely than the average female in the county to have attended college and/or completed a two-year degree, but they are less likely to have obtained a four-year or higher degree. Assistant teachers have lower levels of degree attainment than teachers or directors. More than 40 percent of assistant teachers have completed from one to 23 college credits related to early childhood development. Only about seven percent have completed neither college credits nor a degree related to early childhood.

Ninety-five percent of directors have completed a two-year, four-year or higher degree, typically with an early childhood focus. Nearly 90 percent of directors have completed a four-year or higher degree.

The majority of degree holders have completed a degree related to early childhood development. Approximately 15 percent of teachers and 20 percent of directors with BA or higher degrees obtained their degree through a foreign institution.

Across the county, about 60 percent of teachers and 40 percent of assistant teachers are current participants in CARES. More than three-quarters of centers report employing at least one teacher who is a CARES participant, and more than two-thirds report employing at least one assistant teacher who is a CARES participant. Within such centers, typically about three-quarters of teachers and assistants are participating.

About two-thirds of all teachers with an AA or higher degree hold a Child Development Permit, and about two-thirds of all directors hold a Site Supervisor Permit. About one-quarter of teachers and one-third of directors with a BA or higher degree have a teaching credential (as opposed to a Child Development Permit) issued by the California Commission on Teacher Credentialing.

People hold conflicting images of the educational and professional preparation of the licensed center-based workforce. Some see center teachers and assistants as a group with limited college-level experience or training, and others point to the increasing numbers of teachers with relatively high levels of educational attainment and involvement in early childhood-related training. As a group, teachers and directors in San Francisco County child care centers have obtained levels of education that match or exceed the average San Francisco County adult female, challenging the stereotype that those who work with young children are minimally educated. Assistant teachers have attended college and completed two-year degrees at higher rates, but have completed four-year degrees at lower rates, than the county's adult female population.

Our data suggest that these conflicting public images of the ECE workforce do, however, partly reflect the complex reality that educational attainment and professional preparation of ECE staff varied by type of program. With respect to proposed increases in educational requirements for teachers in publicly funded preschool programs, some ECE teachers may find such new requirements within reach or may have already met them, while others may find it unrealistic to pursue this new opportunity.

As for participation in professional development activities, it is encouraging that more than three-quarters of centers reported that at least one teacher was participating in a local CARES or similar program, and that within these centers, a sizeable portion of staff were CARES participants. This suggests that most centers were engaged in upgrading the

education and training of their staff. Efforts to maintain or extend such programs to additional child care centers and assistant teachers are worthy of attention.

With respect to certification, the relatively high number of Child Development Permit holders in the center-based ECE workforce reflects the efforts of the CARES program, which in recent years have begun requiring participants to acquire Child Development Permits. This rate of certification is still lower than that of K-12 teachers, who are required to become credentialed in order to work in the public schools. As discussions move forward concerning higher educational qualifications for teachers in publicly-funded preschool programs, including a credential or other certification, it is now an opportune time to address the larger issue of California's overall lack of uniform requirements for the ECE teaching workforce.

4) How do levels of overall educational attainment, and professional preparation related to early childhood development, vary among teachers, assistant teachers and directors employed in centers licensed to serve infants and/or preschoolers?

Levels of education among teachers, assistant teachers and directors vary by ages of children served. Centers that enroll both infants and preschoolers report a somewhat lower percentage of teachers with BA or higher degrees than those enrolling preschoolers but no infants. Centers that enroll both infants and preschoolers also report lower levels of educational attainment among assistants than centers enrolling preschoolers but no infants.

Educational attainment also varies by centers' relationship to public subsidy. Centers receiving no public dollars report a higher percentage of teachers and directors who have obtained a BA or higher degree than all other centers. Centers receiving public dollars through vouchers report higher levels of AA degree attainment among teachers than contracted centers or those receiving no public dollars. Teachers in contracted centers are also the most likely to hold a Child Development Permit.

Educational attainment varies among teachers by demographic characteristics. Teachers with bachelor's or higher degrees are older, on average, than those with less education. Teachers' educational attainment also varies by ethnicity and language: compared to the ethnic distribution of the teacher population as a whole, White, Non-Hispanic teachers with bachelor's or higher degrees are over-represented, African American and Asian/Pacific Islander teachers are represented proportionately, and Latinas are under-represented. About 50 percent of Asian/Pacific Islander, 65 percent of White, Non-Hispanic, 38 percent of African American and 26 percent of Latina teachers have completed a BA or higher degree. Latina, African American and Asian/Pacific Islander teachers have attained BA or higher degrees at higher rates than their counterparts in the overall county population. White, Non-Hispanic teachers are likely to have earned a BA or higher degree at similar rates as other White, Non-Hispanic San Francisco adults.

With respect to linguistic capacity, teachers with AA degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with no degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, there is little or no variation by educational attainment in the percentage of those who speak a language other than English fluently.

A well-trained, culturally diverse and competent workforce serving young children, wherever they live and whatever their family income, is the stated goal of many who are involved in efforts to improve and expand early care and education services. By examining how the educational and professional preparation of the current workforce varies along several dimensions, these data point to the need for a differential strategy for targeting professional development resources for the current and emerging workforce if this goal is to be met.

Generally, our findings confirm that most centers serve children under age four, and thus they underscore how important it is for early childhood-related training to focus on infants, toddlers and young preschoolers as well as four-year-olds. At the same time – since many centers, whether they choose to become publicly funded preschool sites or not, are likely to continue caring for four-year-olds as well as younger children for much of the day – it is important that training opportunities be made available to all who work with children prior to kindergarten, not just those serving as teachers and instructional aides in publicly funded classrooms.

Another area of inequity with regard to teacher background documented in this study concerns variation among centers with varying relationships to public subsidy, and raises concern about the overall quality of education and care that children, particularly children of low-income families, receive in such centers. It also points to the greater challenge some programs would face in meeting higher educational standards in order to become part of a publicly funded preschool system.

While a sizeable portion of teachers and assistants working in centers were found to be relatively young when compared to the average adult female in the county, this study confirmed the troubling finding from previous studies that the most educated segment of the center teacher workforce is older than the teacher population as a whole (Herzenberg, Price & Bradley, 2005). The higher percentage of teachers with BA and higher degrees who are over age 50 and approaching retirement at a time when the demand is rising for teachers with such qualifications suggests that in addition to assisting current members of the workforce in achieving college degrees, San Francisco County needs to recruit even more college graduates to early childhood teaching positions. Such an effort should include a strategy to further improve compensation, in order to make such employment more attractive to well-educated young candidates.

With regard to educational attainment by ethnicity, White, Non-Hispanic teachers comprised a higher proportion of teachers with college degrees than of teachers as a whole, and African Americans and Asian/Pacific Islanders were proportionately represented among those with four-year or higher degrees. Latinas, however, were under-represented among degree holders and over-represented among those for whom high school was the highest level of education. Many in San Francisco are engaged in efforts to make college more accessible to Latina teachers, in part by providing entry-level early childhood courses in Spanish, and intentionally using early childhood-related content as a vehicle for helping Spanish speakers build the English skills necessary to complete college degrees.

On a more promising note, it is important to recognize that early care and education appears to be a field of opportunity to some extent for teachers of color. Latina, African American and Asian/Pacific Islander teachers had attained BA or higher degrees at higher rates than their counterparts in the overall county population, whereas White, Non-Hispanic teachers were likely to have earned a BA or higher degree at similar rates to all White, Non-Hispanic San Francisco County adults. What is not possible to determine from these data is whether this is a reflection of limited opportunities in other fields or a choice on the part of these teachers. It is also particularly striking that assistant teachers were the most linguistically diverse segment of the ECE workforce, pointing to the need for greater attention to this population in terms of access to higher education and professional development.

Our finding that a sizeable number of degree holders had obtained their degrees from a foreign institution also shows the importance of providing resources for transcript translation and review. This may enable teachers who seek certification to reduce the likelihood of having to repeat classes, which is now common for foreign degree holders.

5) How well prepared are teachers to care for and educate children who are dual language learners or have special needs?

Less than one-half of centers employ teachers who have participated in non-credit training focused on dual language learning in young children, and about one-third of centers employ teachers who have completed college coursework in that subject, despite the growing numbers of young children in San Francisco County who speak a language other than English in their homes.

Many more teachers have participated in professional development related to working with children with special needs. Three-fourths of centers report that at least one of their teachers has participated in non-credit training, and about two-thirds report that at least one teacher has completed college credits, related to children with special needs. Centers that report caring for at least one child with special needs also report a higher percentage of teachers with training and education to work with such children.

Our data show that the vast majority of child care center teachers in San Francisco County have not engaged in either non-credit or credit-bearing training related to dual language learning. This is largely because such training and coursework are not generally available, reflecting the need to update the courses of study at our training institutions, both college- and community-based, and to expand the pool of instructors who are knowledgeable about this subject (Whitebook, Bellm, Lee & Sakai, 2005).

more advanced coursework and training in these subjects must be offered if we hope to build an early care and education workforce that is well prepared to meet the diverse needs of San Francisco County's young children.

By contrast, many more teachers in the state have received training or college coursework related to serving children with special needs. This is a reflection of an intentional strategy, supported by resources through SB 1703, to make such training available. The passage in 2005 of SB 640, extending this training program conducted by local R&Rs and other agencies, has the potential to reach even more of the center-based ECE workforce with important information related to children with special needs. A similar effort around dual language learning is much needed. Additionally,

* * * * *

In the last five years, with the availability of more resources for children ages 0 to 5 flowing through local and state First 5 Commissions and other sources, there has been a concerted effort to expand professional development opportunities for the early care and education workforce, and to make these offerings more relevant and accessible. In the process of expanding resources, however, many of the limitations of the state's current professional development infrastructure have become more visible.

Now, as San Francisco County and various counties embark on creating publicly funded preschool programs, there is an opportunity to develop comprehensive state and local plans for professional development that are inclusive of teachers and assistant teachers in a variety of settings, whether they work primarily with four-year-olds or with younger and older children. As their foundation, such plans should reflect the latest information about what practitioners need to know and do in order to help children realize their potential.

Policy issues to be considered include: the challenges of operating a program with multiple funding streams and different qualifications and pay scales for teachers working with children of different ages; the impact on the supply of care for infants, toddlers and three-year-olds if centers choose to serve four-year-olds exclusively; the extent of career opportunities for teachers and assistants who meet publicly funded preschool standards; and the availability of educational and quality improvement pathways for teaching staff who work in programs that do not become either public preschool sites or affiliated extended-day services. The data reported here do not address these scenarios directly, but provide a baseline description of the current landscape that can help frame additional research.

This study has provided a snapshot of the center-based early care and education workforce in 2005, capturing current strengths and areas in need of improvement. It is to be hoped that future assessments will document great strides toward creating an even more diverse, culturally competent workforce, well prepared to meet the needs of San Francisco County's young children.

Appendix A: Additional Tables

Table A1. Estimated Age Range of Assistant Teachers: Countywide, and By Ages of Children Served

	Estimated percentage		
	Countywide	Centers enrolling infants ^a	Centers without infants
29 years or younger	34.9	51.1	25.8
30 to 39 years	29.9	28.1	30.8
40 to 49 years	24.0	14.8	29.2
50 years or older	11.2	5.9	14.2
<i>Total</i>	100.0	100.0	100.0
<i>Number of assistant teachers</i>	375	135	240

^aMost of these centers also enroll older children.

Table A2. Estimated Age Range of Assistant Teachers: Countywide, and By Centers' Relationship to Public Subsidy

	Estimated percentage			
	Countywide	Head Start/ CDE contract	Vouchers/ No contract	No vouchers/ No contract
29 years or younger	34.9	13.1	58.7	62.6
30 to 39 years	29.9	34.5	23.9	24.4
40 to 49 years	24.0	36.4	13.0	7.3
50 years or older	11.2	16.0	4.3	5.7
<i>Total</i>	100.0	100.0	100.0	100.0
<i>Number of assistant teachers</i>	375	206	46	123

Table A3: Estimated Ethnicity of Teachers, Assistant Teachers and Directors, Countywide and By Ages of Children Served

	Estimated percentage			
	All centers	Centers enrolling infants ^a	Centers without infants	
Teachers	White, Non-Hispanic	33.3	22.7	37.3
	Latina	15.7	22.2	13.3
	African American	11.5	9.1	12.4
	Asian/Pacific Islander	34.1	38.6	32.4
	American Indian or Alaskan Native	0.8	1.7	0.4
	Multiethnic	3.1	4.0	2.8
	Other	1.4	1.7	1.3
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of teachers</i>	642	176	466
	Assistant teachers	White, Non-Hispanic	15.5	19.7
Latina		20.7	24.8	18.4
African American		15.2	10.2	18.0
Asian/Pacific Islander		43.4	38.7	46.0
American Indian or Alaskan Native		0.3	0.0	0.4
Multiethnic		2.1	2.9	1.6
Other		2.8	3.6	2.4
<i>Total</i>		100.0	100.0	100.0
<i>Number of assistant teachers</i>		387	137	250
Directors	White, Non-Hispanic	40.4	40.5	40.3
	Latina	14.7	21.6	11.1
	African American	11.9	8.1	13.9
	Asian/Pacific Islander	27.5	21.6	30.6
	American Indian or Alaskan Native	0.9	2.7	0.0
	Multiethnic	4.6	5.4	4.2
	Other	0.0	0.0	0.0
	<i>Total</i>	100.0	100.0	100.0
	<i>Number of directors</i>	109	37	72

^aMost of these centers also enroll older children.

Table A4. Estimated Percentage of Centers Caring for At Least One Child with Special Needs, By Ages of Children Served

	Estimated percentage (SE)		
	Countywide	Centers enrolling infants ^a	Centers without infants
No children with special needs	43.2 (4.72)	60.9 (10.22)	38.6 (5.21)
At least one child with special needs*	56.8 (4.72)	39.1 (10.22)	61.4 (5.21)
<i>Total</i>	100.0	100.0	100.0
<i>Number of centers</i>	111	23	88

^aMost of these centers also enroll older children.

* $p < .01$, Centers enrolling infants < Centers without infants.

Table A5. Estimated Percentage of Assistant Teachers, By Age and Educational Attainment: Countywide

	Estimated percentage		
	All assistant teachers	Assistant teachers with associate or higher degree	Assistant teachers with no degree
Under 30 years old	34.9	36.2	34.3
30 to 39 years old	29.9	29.9	29.8
40-49 years old	24.0	26.8	22.6
50 years and older	11.2	7.1	13.3
<i>Total</i>	100.0	100.0	100.0
<i>Number of staff</i>	375	127	248

Table A6. Estimated Percentage of Teachers and Assistant Teachers, by Age and Educational Attainment, Ages of Children Enrolled and Centers' Relationship to Public Subsidy

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistant teachers with associate or higher degree	Assistant teachers with no degree
Centers enrolling infants^a	Under 30 years old	43.7	47.3	38.3	43.5	51.1	30.0	54.8
	30 to 39 years old	27.9	24.3	40.4	23.2	28.2	25.0	28.7
	40 to 49 years old	17.4	18.9	8.5	21.7	14.8	35.0	11.3
	50 years and older	11.0	9.5	12.8	11.6	5.9	10.0	5.2
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	190	74	47	69	135	20	115
Centers without infants	Under 30 years old	16.6	17.4	14.7	16.8	25.8	37.4	16.6
	30 to 39 years old	33.2	35.2	36.2	24.2	30.8	30.9	30.8
	40 to 49 years old	28.6	21.9	29.3	45.3	29.2	25.2	32.3
	50 years and older	21.6	25.5	19.8	13.7	14.2	6.5	20.3
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	458	247	116	95	240	107	133
Head Start/CDE contract	Under 30 years old	8.9	10.2	6.7	8.6	13.1	18.3	10.9
	30 to 39 years old	28.8	35.2	17.8	27.6	34.5	30.0	36.3
	40 to 49 years old	36.7	27.3	44.4	44.8	36.4	45.0	32.9
	50 years and older	25.6	27.3	31.1	19.0	16.0	6.7	19.9
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	191	88	45	58	206	60	146

^aMost of these centers also enroll older children.

Table A6. Estimated Percentage of Teachers and Assistant Teachers, by Age and Educational Attainment, Ages of Children Enrolled and Centers' Relationship to Public Subsidy

		Estimated percentage						
		All teachers	Teachers with bachelor's or higher degree	Teachers with associate degree	Teachers with no degree	All assistant teachers	Assistant teachers with associate or higher degree	Assistant teachers with no degree
Vouchers/ No contract	Under 30 years old	34.1	29.6	36.5	37.9	58.7	63.6	54.2
	30 to 39 years old	30.9	31.8	46.0	15.1	23.9	18.2	29.2
	40 to 49 years old	23.5	26.1	8.0	34.9	13.0	13.6	12.5
	50 years and older	11.5	12.5	9.5	12.1	4.4	4.6	4.1
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	217	88	63	66	46	22	24
No vouchers/ No contract	Under 30 years old	28.3	29.7	16.4	40.0	62.6	46.7	71.8
	30 to 39 years old	34.6	31.7	43.6	32.5	24.4	35.5	17.9
	40 to 49 years old	17.9	14.5	23.6	22.5	7.3	8.9	6.4
	50 years and older	19.2	24.1	16.4	5.0	5.7	8.9	6.4
	<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<i>Number of staff</i>	240	145	55	40	123	45	78

^aMost of these centers also enroll older children.

Table A7. Estimated Mean Percentage of Teachers with Non-Credit Training and/or College Credits Related to Dual Language Learning Children, Countywide and by Ages of Children Served

	Estimated mean percentage per center (SE)		
	Countywide	Centers enrolling infants ^a	Centers without infants
At least one hour of non-credit training	30.8 (4.06)	6.3 (5.31)	36.5 (4.63)
<i>Number of centers</i>	101	19	82
At least one college credit	17.9 (3.15)	18.0 (7.51)	17.8 (3.48)
<i>Number of centers</i>	91	19	72

^aMost of these centers also enroll older children.

Appendix B:

Methodology for Estimating the Number of Children Served and the Size of the Licensed Child Care Center Workforce

In San Francisco County, we attempted to interview all the licensed child care centers serving infants and/or preschoolers. As anticipated, we were unable to do so, since some centers were out of business and others could not or chose not to complete an interview. Our sample of interviewed centers gives us sound information about the percentages of the center population with specific characteristics. To obtain actual numbers, however, such as the number of children served in licensed centers and the size of the center workforce, it was necessary to compute estimates from the sample of interviewed centers.

The total universe of licensed child care centers serving infants and/or preschoolers in San Francisco County was 255. We completed interviews with 114 of these centers. To calculate the number of children served and the size of the workforce, we used the following methodology:

1. Calculate a ratio to create a multiplier for the sample to the universe:
 $255/114=2.2$.
2. Multiply the sums of children in each age group in the sample, by the multiplier (2.2) to calculate the estimated total number of children served in each age group.
3. Multiple the sums of directors, teachers, and assistant teachers in the sample by the multiplier (2.2) to calculate the estimated total number of center staff in each job category.

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