California Early Care and Education Workforce Study

Licensed Child Care Centers

Marin County, 2006

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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 Marin 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.

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

The licensed capacity is based on the physical space of a site (as described above) and the number of staff 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

Marin County

Located between the Pacific Ocean and San Francisco Bay, Marin County has the largest median family income of California's counties, and its economy is largely based on information, professional and technical services, as well as financial, insurance and real estate transactions. Its largest cities are San Rafael and Novato.

In 2004, Marin County's population of 250,200 represented a 1.2-percent increase over the 2000 Census (US Census Bureau, 2000a). The county is projected to increase in population by only 1.6 percent between 2000 and 2010, and a 14.9-percent decrease in the number of children ages 0-4 is anticipated for that period (California Department of Finance, 2004).

Population estimates for 2005 describe the county as 77.5 percent White, Non-Hispanic; 12.4 percent Hispanic; 4.6 percent Asian; 2.9 percent Black; 2.2 percent Multiethnic; 0.4 percent American Indian; and 0.2 percent Pacific Islander (California Department of Finance, 2005). At the time of the 2000 Census, 78.7 percent of county households were estimated as speaking English, 8.2 percent Spanish, and 3.0 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 Marin County:

- Median family income in 1999 was $88,934 (California Department of Finance, 2003).
- In 1999, 6.6 percent of residents had incomes below the poverty level (California Department of Finance, 2003).
- These figures disguise individual family economics, which is highly influenced by the cost of housing. The 2005 annual fair market rent for a two-bedroom unit in Marin County was $18,468 (US Department of Housing and Urban Development, 2005).
- According to the 2000 Census, 7.6 percent of children 0-5 years of age lived in poverty[2] (California Child Care Resource and Referral Network, 2003).
- In 2000, 39,323 children under the age of 14 resided in the county, 57.9 percent of whom had both parents or a single head of household in the labor force[3] (California Child Care Resource and Referral Network, 2003).
- Among those children were 16,106 children under age six, 51.5 percent

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).

of whom had working parents[4] (California Child Care Resource and Referral Network, 2003).

- 13.1 percent of children ages 0-5
- resided in a single-parent household[5] (California Child Care Resource and Referral Network, 2003).

In 2004, 9,980 licensed child care slots were available in Marin County, 19.6 percent of which were in family child care homes, and 80.4 percent in child care centers (California Child Care Resource and Referral Network, 2005).

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).

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 Marin 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 Marin 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.ccfc.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 Marin 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 Marin County's children and families.

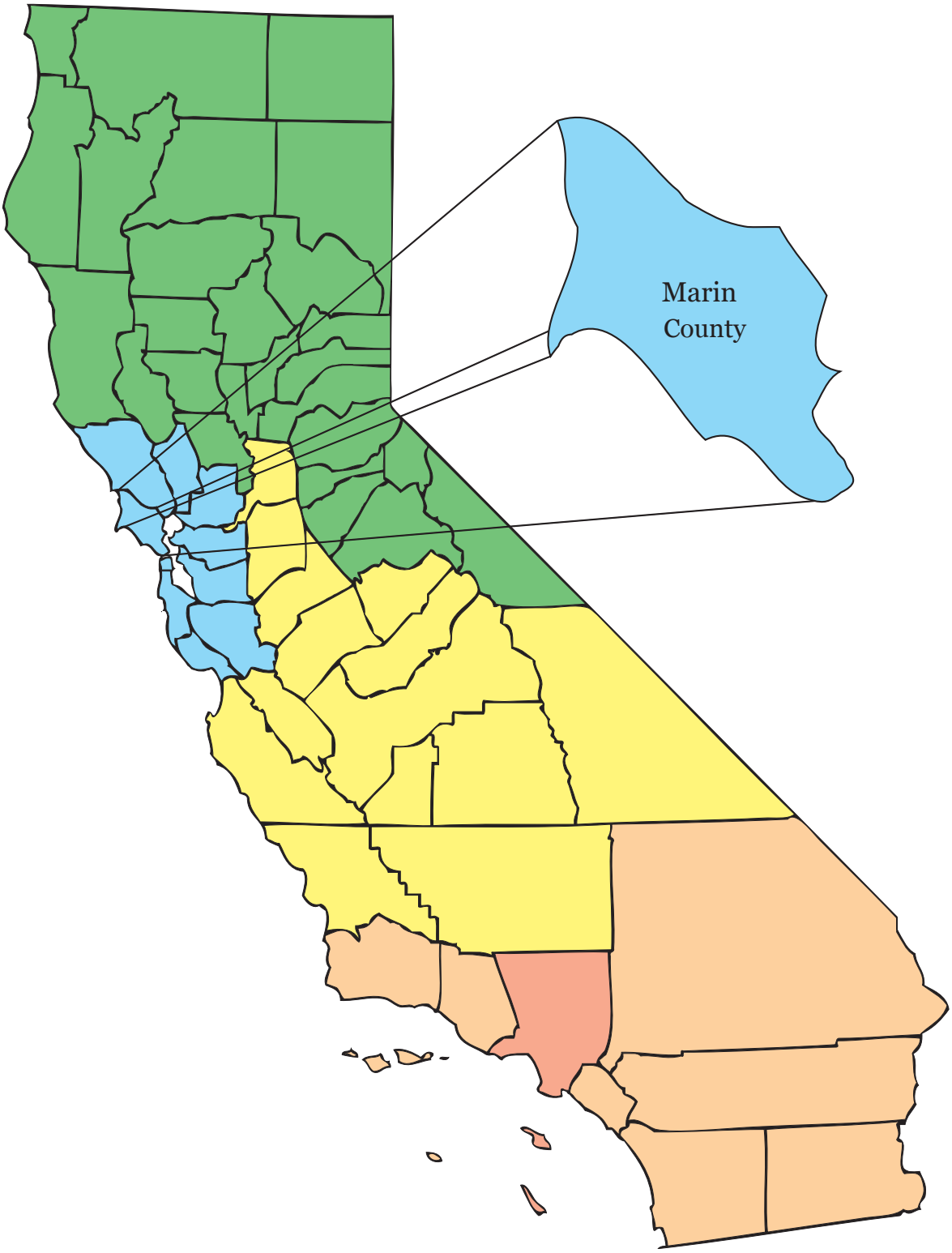
The present report contains the study's findings for licensed child care centers that have infant and/or preschool licenses. Some of these centers have school-age licenses as well. This study, however, does not include data for centers that have a license to serve school-age children only.

A separate report containing information about licensed family child care homes in Marin County can be found at the First 5 California website, http://www.ccfc.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.


Marin
County

Study Design

Survey Population and Study Sample

First 5 Marin Children and Families Commission sought countywide information about directors, teachers and assistant teachers employed at licensed child care centers in Marin County. The survey population included all 120 licensed child care centers serving infants and/or preschoolers that were listed as of January 2004 with the county's state-funded child care resource and referral (R&R) agency, the Marin Child Care Council. 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 63 completed interviews included 23 interviews conducted in Marin County as part of the statewide study and 40 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 two percent of eligible centers (1.3 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:

Table 2.1. *Marin County Sample Composition*

	Marin County licensed centers	Percentage of final sample
Completed interviews: statewide study	23	36.5%
Completed interviews: county study	40	63.5%
Final sample	63	100.0%

- *Demographics*: age, ethnicity, and 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 MarinCARES;
- *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 40 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 120 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 86 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 86 center contacts, 8.1 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, 50.6 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

Table 2.2. *Survey Response Rate of County Sample*

	Marin County number of centers	Percentage of sample	Percentage of eligible
Sample released and dialed	86	100.0%	
Ineligible: out of business	2	2.3%	
Presumed ineligible*	5	5.8%	
Eligible	79	91.9%	100.0%
County surveys completed	40	46.5%	50.6%
No response, presumed eligible**	23	26.7%	29.1%
Refusals	5	5.8%	6.3%
Multi-site refusals***	2	2.3%	2.5%
Respondent not available	5	5.8%	6.3%
Communication barrier	1	1.2%	1.3%
Other reasons for non-completion	3	3.5%	3.8%

* 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=120)	Survey Completed (N=63)
REGULATION		
Licensed for infants	20.8%	20.6%
CDE/Head Start contract	20.8%	14.3%
CITY		
Belvedere	0.8%	0.0%
Bolinas	0.8%	1.6%
Corte Madera	9.2%	9.5%
Fairfax	2.5%	4.8%
Kentfield	2.5%	3.2%
Larkspur	1.7%	1.6%
Marin City	2.5%	1.6%
Mill Valley	10.0%	9.5%
Nicasio	0.8%	1.6%
Novato	19.2%	17.5%
Pt.Reyes Station	0.8%	1.6%
Ross	1.7%	1.6%
San Anselmo	8.3%	7.9%
San Geronimo	1.7%	1.6%
San Rafael	27.5%	23.8%
Sausalito	3.3%	4.8%

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

Stinson Beach	0.8%	1.6%
Tiburon	4.2%	4.8%
Tomales	0.8%	1.6%
Woodacre	0.8%	0.0%
Total	100.0%	100.0%

answering machines or voice mails to encourage them to participate in the study.

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

- 29.1 percent: Answering machine, voice mail or busy signal prevented successful contact;
- 6.3 percent: Refusal;
- 2.5 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;
- 6.3 percent: Respondent not available to complete the survey during the study period;
- 1.3 percent: Communication barriers we were unable to surmount;
- 3.8 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 and the percentage of centers with a license to serve infants. Contracted centers are somewhat under-represented among the interviewed centers, with 14.3 percent of the interviewed centers having contracts, compared to 20.8 percent of the centers in the universe.[6]

6 The implications of the under-representation of contracted centers among the interviewed centers are discussed in the Findings section.

Findings

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

In Marin County, a teacher in a child care center licensed to serve infants and/or preschoolers is much more likely to be White, Non Hispanic than to be a woman of color. Assistant teachers are more ethnically diverse than teachers and directors, but teachers and assistants are both more ethnically diverse than K-12 teachers. Compared to women in Marin County, teachers and assistant teachers are more likely to be under age 30. Approximately one-quarter of teachers, two-fifths of assistant teachers, and one-fifth of directors are able to speak a language other than English fluently, most typically Spanish.

These demographic profiles vary, however, by such center characteristics as age group of children served and relationship to public subsidy. For example, centers serving infants are more likely than those serving only older children to employ teachers who speak a language other than English.

About three-quarters of assistant teachers, and slightly more than one-half of teachers, have worked in their present jobs for less than five years, while the typical director has been on the job for more than five years. Countywide, the highest-paid teachers with a BA earn, on average, $19.95 an hour. The highest-paid assistants can expect to earn $12.30 an hour, on average, if they work in a center receiving public subsidy through vouchers, and $14.33 an hour in a center that does not receive any public funding.

Age

Directors were asked to report the age range of their teachers and assistant teachers; we did not collect data on the age of directors for this study. Compared to women[7] in Marin County (10.6 percent), teachers (23.7 percent) and assistant teachers (45.6 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 than centers that did not serve infants. Only 15.4 percent of teachers in centers without infants were under 30, compared to 37.9 percent of teachers in centers serving infants as well as preschoolers.

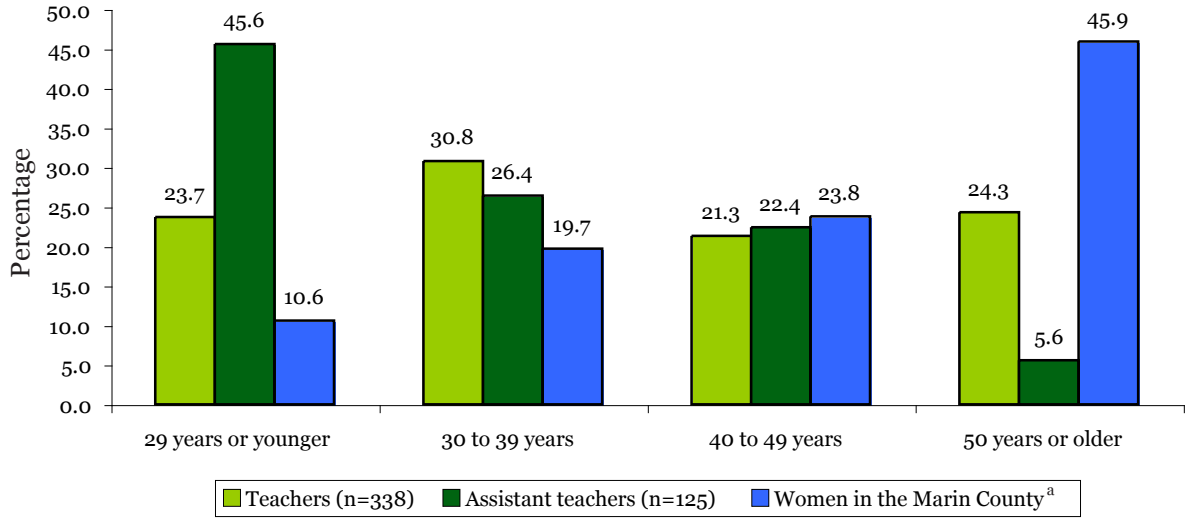
The age distribution of teachers and assistant teachers also varied depending on centers' relationship to public subsidy, as shown in Figure 3.3. Centers holding a contract with Head Start or CDE reported a higher proportion of teachers and assistant teachers under 30 years old than centers receiving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

Ethnic Background

We found that slightly more than

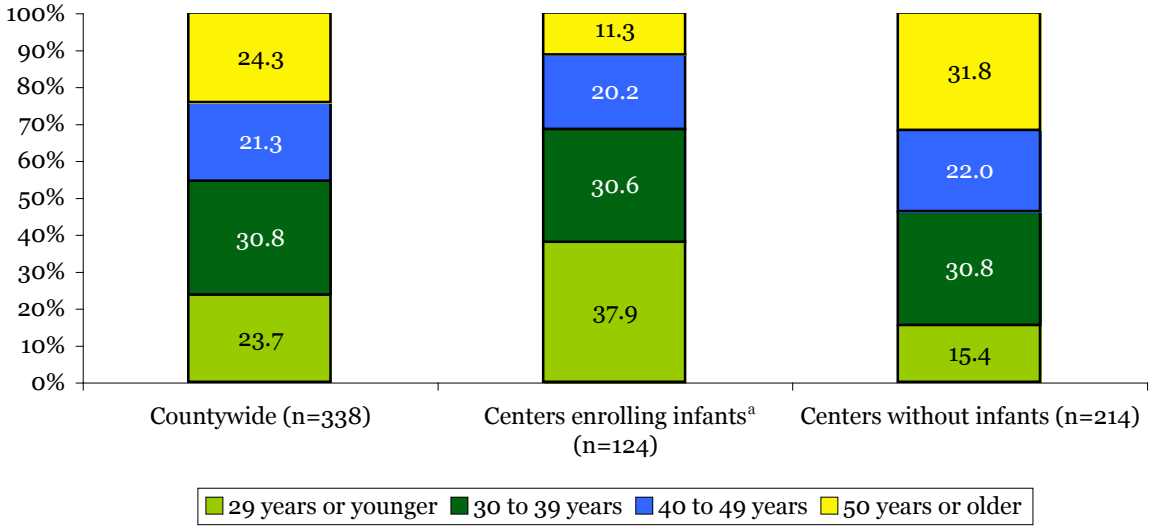
7 Previous research has established that the early care and education workforce is predominantly female. In the interest of survey length, therefore, directors were not asked about the gender of teaching staff.

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



[a] US Census Bureau (2000c).

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*

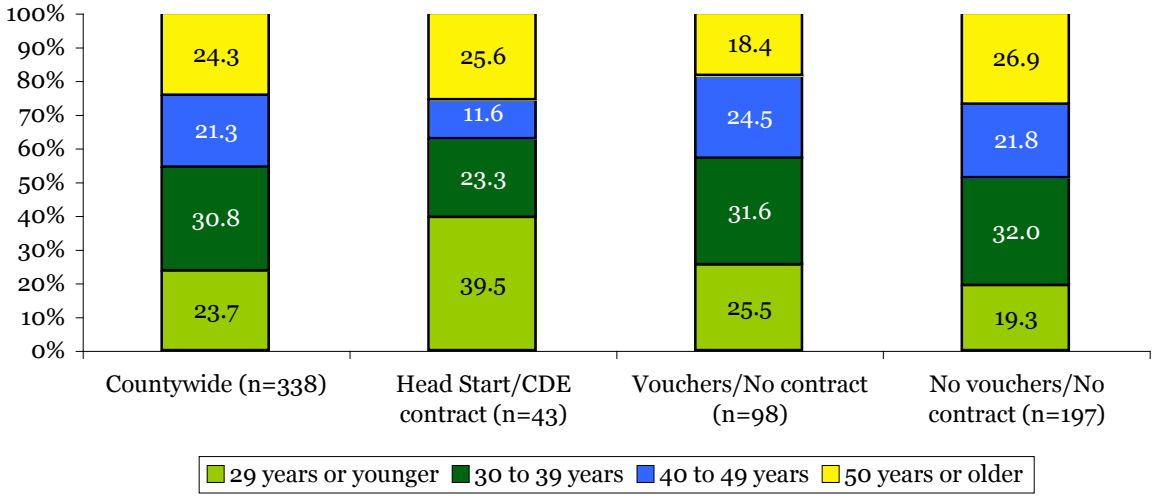


Table 3.1. *Estimated Ethnicity of Teachers, Assistant Teachers and Directors: Countywide*

	Estimated percentage		
	Teachers	Assistant teachers	Directors
White, Non-Hispanic	76.7	57.3	92.0
Latina	9.8	29.9	0.0
African American	2.6	5.1	2.0
Asian/Pacific Islander	7.2	6.8	4.0
American Indian or Alaskan Native	1.1	0.0	0.0
Multiethnic	0.6	0.0	0.0
Other	2.0	0.9	2.0
Total	100.0	100.0	100.0
Number of staff	348	117	50

three-fourths of child care teachers in Marin County (76.7 percent) were White, Non-Hispanic, and almost 10 percent were Latina (9.8 percent). (See Figure 3.4.) About one-quarter were people of color (23.3 percent); Asian/Pacific Islanders were the third largest group (7.2 percent). Among assistant teachers, White, Non-Hispanics represented a majority (57.3 percent), followed by Latinas (29.9 percent). Almost all directors (92.0 percent) were White, Non-Hispanic, while four percent were Asian/Pacific Islander. As shown in Table 3.1, across all job titles, African Americans were the next largest group, followed by those identifying themselves as Multiethnic, American Indian/Alaskan Native, or of some other ethnicity.

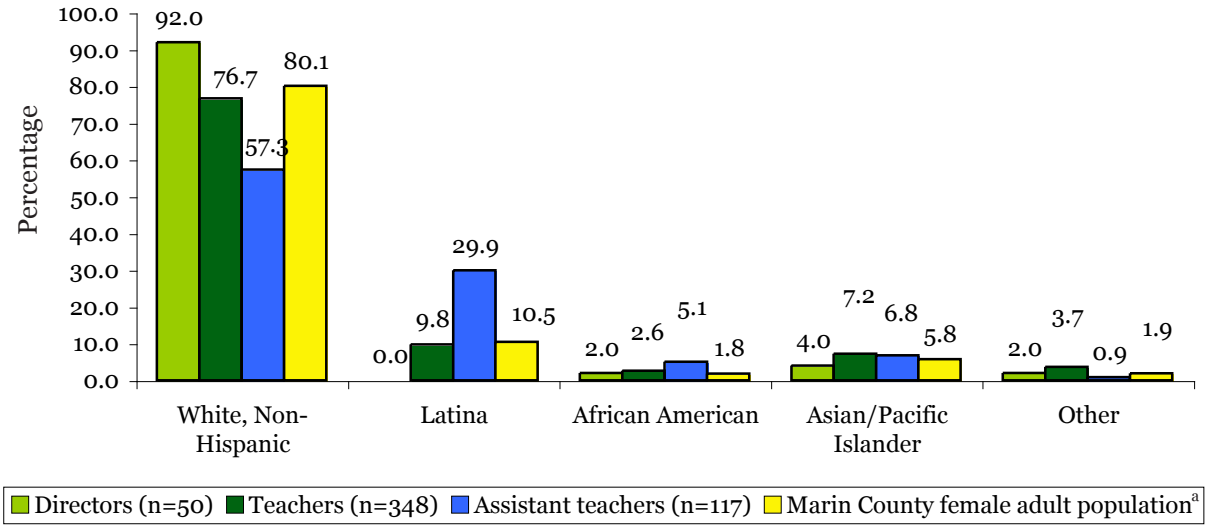
As shown in Figure 3.4, directors in Marin County child care centers enrolling infants and/or preschoolers were more likely to be White, Non-Hispanic, and less likely to be Latina, than were other female adults in the county. Teachers were almost equally likely to be White, Non-Hispanic or Latina as female adults in the county. In contrast, assistant teachers were more likely to be Latina, and less likely to be White, Non-Hispanic, than were other female adults in the county. Teachers (2.6 percent) and assistant teachers (5.1 percent) were slightly more likely, and directors (2.0 percent) almost equally likely, to be African American in comparison to the county's adult female population (1.8 percent). Asian/Pacific Islander directors (4.0 percent), teachers (7.2 percent), and assistant teachers (6.8 percent) closely reflected the proportion of Asian/Pacific Islanders in the adult female population (5.8 percent).

Teachers and assistant teachers were more diverse, and more closely reflected the ethnic distribution of children ages birth to five in Marin County, than directors. In addition, child care center teachers were much more diverse than teachers in Grades K-12 in Marin County public schools. (See Figure 3.5.) Almost all public school K-12 teachers (92.1 percent) were White, Non-Hispanic, compared to 76.7 percent of teachers in child care centers, and 70.1 percent of children ages birth to five (California Department of Education, 2004). Child care center teachers were more likely to be Latina (9.8 percent) than were K-12 teachers (3.5 percent), but were less likely to be Latina than children ages birth to five (19.9 percent). The percentage of Latina assistant teachers (29.9 percent) actually over-represented the proportion of Latino children ages birth to five in the county.

Child care center teachers were more likely than K-12 teachers to be African American (2.6 percent vs. 0.5 percent), Asian/Pacific Islander (7.2 percent vs. 2.3 percent) or some other ethnicity (3.7 percent vs. 1.6 percent). Child care center teachers were slightly more likely to be African American than were children ages birth to five (2.6 percent vs. 1.6 percent), and slightly less likely to be of some other ethnicity, than were children birth to five (3.7 percent vs. 4.9 percent). Child care center teachers were more likely to be Asian/Pacific Islander than children birth to five (7.2 percent vs. 3.5 percent).

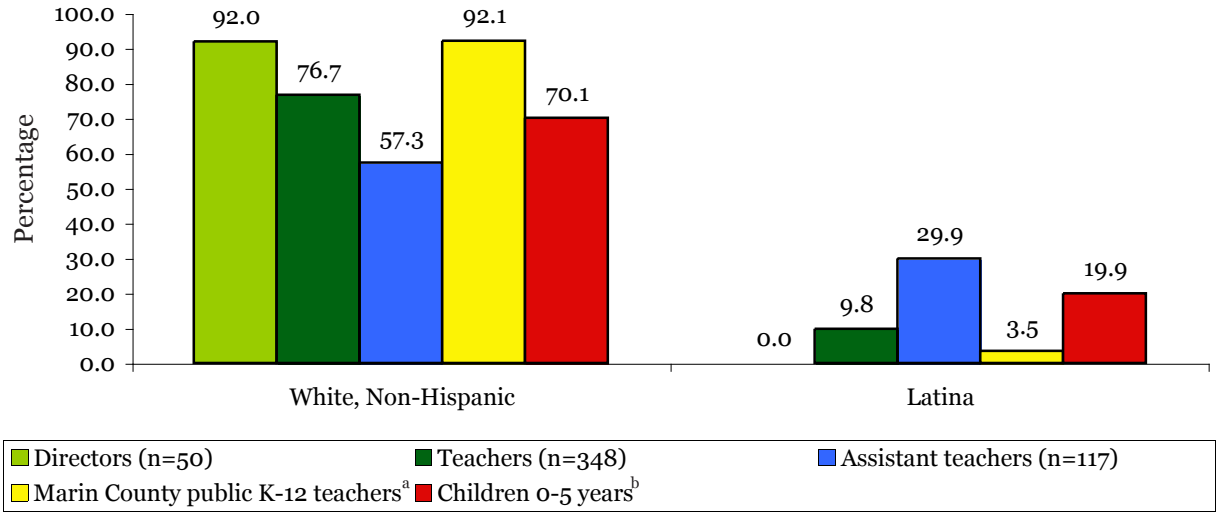
The ethnic composition of staff differed by the ages of children enrolled in centers. Centers serving infants reported a higher percentage of Latina teachers and assistant teachers than centers serving only older children. Centers not serving infants reported a higher percentage of Asian/Pacific Islander staff. In centers

Figure 3.4. *Estimated Ethnic Distribution of Teachers, Assistant Teachers and Directors Compared to the Marin 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 Marin 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	65.5	79.6	78.5
	Latina	18.2	10.2	7.2
	African American	10.9	0.0	1.5
	Asian/Pacific Islander	1.8	6.1	9.2
	Other	3.6	4.0	3.6
	Total	100.0	100.0	100.0
	Number of teachers	55	98	195
Assistant teachers	White, Non-Hispanic	37.0	60.0	67.5
	Latina	44.4	28.0	22.5
	African American	14.8	0.0	5.0
	Asian/Pacific Islander	3.7	10.0	5.0
	Other	0.0	2.0	0.0
	Total	100.0	100.0	100.0
	Number of assistant teachers	27	50	40
Directors	White, Non-Hispanic	100.0	92.9	90.3
	Latina	0.0	0.0	0.0
	African American	0.0	0.0	3.2
	Asian/Pacific Islander	0.0	7.1	3.2
	Other	0.0	0.0	3.2
	Total	100.0	100.0	99.9
	Number of directors	5	14	31

serving infants, 16.2 percent of the teachers and 33.3 percent of the assistant teachers were Latina, compared to 5.7 percent of teachers and 28.2 percent of assistant teachers in centers serving only older children. In centers not serving infants, 9.4 percent of teachers, 10.3 percent of assistant teachers and 6.7 percent of directors were Asian/Pacific Islander, compared to 3.7 percent of teachers, and no reported assistant teachers or directors in centers serving infants.

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 and assistant teachers.

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 their teachers of a particular ethnicity, but also in regard to whether they employ at least one teacher of a particular ethnicity. We found that a greater proportion of contracted programs (50.0 percent, SE=15.8) employed at least one African American teacher, than programs receiving no public dollars (5.9 percent, SE=4.0) or programs receiving vouchers. (These programs did not report any African American teachers.)

There were also variations between centers serving infants and those serving only older children. A greater percentage of centers serving infants employed at least one Latina (64.3 percent, SE=12.8) and/or African American teachers (28.6 percent, SE=12.1) than centers serving only older children (19.2 percent, SE=5.7, employing at least one Latina; 6.4 percent, SE=3.6, employing at least one African American).

Linguistic Background

We also found that the population of children served by Marin County's licensed 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 reports that 22.0 percent of kindergarteners attending Marin County public schools in 2004-2005 spoke a language other than English and were

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

	Percentage
Spanish	87.9%
Vietnamese	1.6%
Portuguese	1.0%
French	1.0%
Farsi (Persian)	1.0%
Gujarati	0.8%
Mandarin (Putonghua)	0.8%
Korean	0.6%
German	0.6%
Japanese	0.6%
Dutch	0.6%
Cantonese	0.4%
Hebrew	0.4%
Lao	0.4%
Punjabi	0.2%
N	495

Source: California Department of Education (2006).

classified as English Learners. Of the more than 42 different languages spoken by English Learners in Marin County's public kindergarten 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. Directors emerged as the least, and assistant teachers as the most, linguistically diverse group. About one-fifth (21.2 percent) of directors, 23.2 percent of teachers, and 40.9 percent of assistants had the capacity to communicate fluently with children and families in a language other than English. Not all centers, however, employed a director, teacher or assistant teacher with this capacity. Most centers (73.0 percent) did not employ a director who could communicate fluently in a language other than English with children and families, but a majority employed at least one teacher (54.8 percent) or assistant teacher (77.5 percent) who could. (See Table 3.4.) When centers employed at least one teacher or assistant with this language capacity, on average, 40.0 percent of their teachers and 61.8 percent of assistants were able to communicate fluently in a language other than English.

Among those who spoke languages other than English fluently with children and families, the most commonly spoken language was Spanish:

- Among directors who spoke a language other than English fluently, 54.5 percent spoke Spanish, and none reported speaking Chinese.
- Among teachers who spoke a language other than English fluently, 64.0 percent spoke Spanish, and 9.0 percent spoke Chinese.
- Among assistant teachers who spoke a language other than English fluently, 80.8 percent spoke Spanish, and 5.8 percent spoke Chinese.

The linguistic background of teachers, assistant teachers, and directors also varied among centers serving particular groups of children. As shown in Tables 3.6 and 3.7, centers serving infants were significantly more likely than centers that did not serve infants to employ at least one teacher who spoke a language other than English fluently. However, among centers that employed at least one teacher able to communicate in a language other than or in addition to English, centers serving the different age groups did not vary in the percentages of such teachers employed. There were no significant language differences among directors and assistants in centers serving children of different ages.

As shown in Tables 3.6 and 3.7, there were no differences in the likelihood of employing a director, teacher, or assistant teacher who spoke a language other than English among centers holding contracts with Head Start or CDE, centers receiving no public funds, or centers receiving vouchers. There were also no differences in the percentages of such staff employed

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	54.8 (6.37)
Number of centers	62
Assistant teachers	77.5 (6.70)
Number of centers	40
Directors	27.0 (7.40)
Number of centers	37

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	40.0 (3.93)
Number of centers	34
Assistant teachers	61.8 (5.48)
Number of centers	31

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*	54.8 (6.37)	85.7 (9.43)	45.8 (7.25)	60.0 (15.62)	58.8 (12.03)	51.4 (8.52)
Number of centers	62	14	48	10	17	35
Assistant teachers	77.5 (6.69)	75.0 (12.66)	78.6 (7.85)	87.5 (11.84)	86.7 (8.89)	64.7 (11.74)
Number of centers	40	12	28	8	15	17
Directors	27.0 (7.40)	36.4 (1.47)	23.1 (8.38)	0.0 (0.00)	33.3 (15.93)	28.0 (9.10)
Number of centers	37	11	26	3	9	25

[a] Most of these centers also enroll older children.
*$p < .05$, 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	40.0 (3.93)	32.0 (4.08)	44.3 (5.43)	43.4 (4.25)	42.3 (9.34)	37.5 (5.06)
Number of centers	34	12	22	6	10	18
Assistant teachers	61.8 (5.48)	68.5 (7.11)	59.1 (7.08)	64.3 (7.95)	69.9 (9.27)	50.7 (8.62)
Number of centers	31	9	22	7	13	11
Directors	89.0 (7.09)	85.0 (13.17)	91.7 (7.71)	0.0 (0.00)	100.0 (0.00)	84.3 (9.58)
Number of centers	10	4	6	0	3	7

[a] Most of these centers also enroll older children.

at the centers.

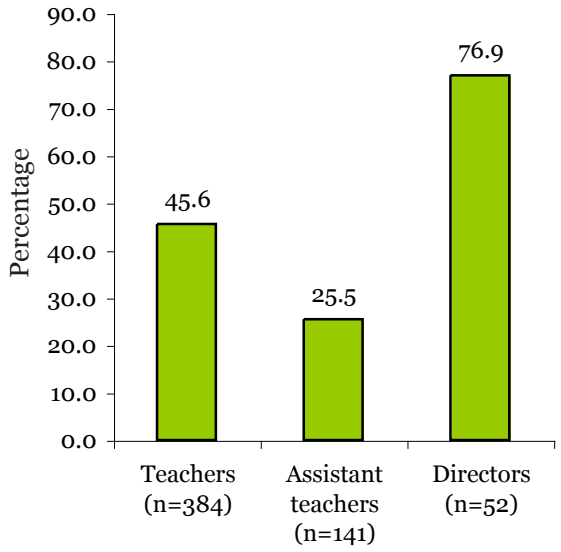
Turnover and Tenure

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.

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.[8] On average, 22.3 percent of teachers, and 17.7 percent of assistant teachers, were reported to have done so. (See Table 3.8.)

The range of turnover rates varied considerably among centers. Slightly less than one-half of centers reported no turnover in the previous 12 months among teachers (45.2 percent) and almost two-thirds of centers reported no turnover in the previous 12 months among assistant teachers (65.1 percent), whereas approximately one-quarter of centers reported turnover rates greater than 25 percent among teachers and assistant teachers. About 10 percent of centers reported that 40 percent or more of teachers and 50 percent or more of assistant teachers had left or stopped working at their centers during the previous 12 months.

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



Director turnover was less than one percent (0.5 percent), lower than turnover among teaching staff. (See Table 3.8.) The overwhelming majority of centers (97.3 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 more than five years. (See Figure 3.6.) Among various positions within centers, directors were the most stable group of employees, followed by teachers and

8 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. Information about position turnover (i.e., changes of role while maintaining employment at the same center) and occupational turnover (i.e., departure from the child care field) was not collected in this study.

assistant teachers. Approximately three-quarters of directors (76.9 percent) had been employed for more than five years at their centers, compared to 45.6 percent of teachers and 25.5 percent of assistant teachers. Only 34.9 percent of centers (SE=7.3) reported employing at least one assistant teacher for more than five years.

Turnover rates did not differ significantly among centers with varying relationships to public subsidy or the ages of children served. (See Tables 3.8 and 3.9.) However, there were some differences in tenure. As shown in Table 3.10, a smaller percentage of directors employed in centers enrolling infants (70.0 percent) had been at their jobs for more than five years than directors in centers enrolling only older children (81.3 percent). In addition, a smaller percentage of assistant teachers had been in their current jobs for more than five years in centers with Head Start or CDE contracts than in centers receiving vouchers or receiving no public funds. (See Table 3.11.)

Wages

We sought to document the current compensation of teachers and assistant teachers working in Marin 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.

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 ($16.18) were, on average, $3.77 an hour less than the highest wages ($19.95).

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 $17.00 per hour (about $35,360 per year), and about one-quarter centers paid their assistant teachers less than $11.00 per hour (or $22,880 per year). Only about 10 percent of centers paid their highest-paid teachers more than $26.00 per hour (or $54,080 per year), and only 10 percent of centers paid their highest-paid assistant teachers $17.00 per hour or more (or $35,360 per year).

We also examined whether centers serving different groups of children varied in their pay rates. (See Table 3.12.) We found that in centers serving both infants and preschoolers, the lowest-paid teachers with BA or higher degrees earned less on average than their counterparts in centers that did not serve infants. On average, in centers without public funding, assistant teachers earned more than their

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	22.3 (5.20)	22.3 (4.96)	22.3 (6.49)
Number of centers	61	13	48
Assistant teachers	17.7 (4.34)	24.4 (10.61)	14.7 (4.24)
Number of centers	43	13	30
Directors	0.5 (0.54)	1.8 (1.82)	0.0 (0.0)
Number of centers	37	11	26

[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	22.3 (5.20)	40.0 (21.60)	25.4 (11.44)	16.3 (4.63)
Number of centers	61	9	17	35
Assistant teachers	17.7 (4.34)	24.1 (11.82)	17.4 (8.00)	14.8 (5.41)
Number of centers	43	9	15	19
Directors	0.5 (0.54)	0.0 (0.00)	0.0 (0.00)	0.8 (0.80)
Number of centers				

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	15.4	15.4	15.3
	1-5 years	39.1	39.7	38.7
	> 5 years	45.6	44.9	46.0
Number of teachers		384	136	248
Assistant teachers	< 1 year	31.9	30.0	33.0
	1-5 years	42.6	46.0	40.7
	> 5 years	25.5	24.0	26.4
Number of assistant teachers		141	50	91
Directors	< 1 year	0.0	0.0	0.0
	1-5 years	23.1	30.0	18.8
	> 5 years	76.9	70.0	81.3
Number of directors		52	20	32

[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	15.4	12.5	13.3	17.0
	1-5 years	39.1	42.9	40.8	37.4
	> 5 years	45.6	44.6	45.9	45.7
Number of teachers		384	56	98	230
Assistant teachers	< 1 year	31.9	33.3	24.0	37.7
	1-5 years	42.6	50.0	48.0	34.4
	> 5 years	25.5	16.7	28.0	27.9
Number of assistant teachers		141	30	50	61
Directors	< 1 year	0.0	0.0	0.0	0.0
	1-5 years	23.1	20.0	21.4	24.2
	> 5 years	76.9	80.0	78.6	75.8
Number of directors		52	5	14	33

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]	17.73 (1.22)	12
	Centers without infants	20.81 (0.89)	31
	Countywide	19.95 (0.75)	43
Teachers with BA or higher degree, lowest wage	Centers enrolling infants[a]	14.50 (0.61)	12
	Centers without infants	16.79 (0.49)	33
	Countywide	16.18 (0.42)	45
All assistant teachers, highest wage*	Centers enrolling infants[a]	12.25 (0.51)	11
	Centers without infants	13.16 (0.57)	26
	Countywide	12.88 (0.43)	37

[a] Most of these centers also enroll older children.
*$p < .05$, Centers without infants > centers enrolling 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	16.58 (0.92)	7
	Vouchers/No contract	19.37 (1.20)	13
	No vouchers/No contract	2131 (1.12)	23
	Countywide	19.95 (0.75)	43
Teachers with BA or higher degree, lowest wage	Head Start/CDE contract	15.69 (1.05)	7
	Vouchers/No contract	15.65 (0.72)	14
	No vouchers/No contract	16.64 (0.60)	24
	Countywide	16.18 (0.42)	45
All assistant teachers, highest wage*	Head Start/CDE contract	10.46 (0.58)	7
	Vouchers/No contract	12.30 (0.46)	13
	No vouchers/No contract	14.33 (0.67)	17
	Countywide	12.88 (0.43)	37

*$p < .01$, No vouchers/no contract > all others.

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	268	730	99	1,097
	Percentage	24.4	66.5	9.0	100.0

counterparts in contracted centers and centers receiving vouchers.

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

Directors were first 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).[9] The following section provides information about:

- the overall number of teachers and assistant teachers working in classrooms with children 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 Marin County centers licensed to care for infants and/or preschoolers comprised 1,097 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 8.2 percent. Because many centers also employ cooks, custodians, social workers, family support workers, educational coordinators and 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 1,480 members.

As shown in Table 3.15, centers enrolling infants as well as preschoolers employed a little more than one-third of all teachers, assistant teachers and directors (35.7 percent), 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.

9 Assistant teachers and teachers working with school-age children constituted approximately eight percent of the teaching staff workforce 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 3.15. *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	95	258	38	391
	Percentage	35.4	35.4	38.4	35.7
Centers without infants	Total number	173	471	61	705
	Percentage	64.6	64.6	61.6	64.3
All centers	Total number	268	729	99	1,096
	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	57	106	10	173
	Percentage	21.3	14.5	10.0	15.8
Vouchers/No contract	Total number	95	186	27	308
	Percentage	35.4	25.5	27.0	28.1
No vouchers/No contract	Total number	116	437	63	616
	Percentage	43.3	59.9	63.0	56.2
All centers	Total number	268	729	100	1,097
	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	268	730	99	1097
	Percentage	24.4	66.5	9.0	100.0
Head Start/CDE contract	Total number	57	106	10	173
	Percentage	32.9	61.5	5.5	100.0
Vouchers/No contract	Total number	95	186	27	308
	Percentage	30.8	60.5	8.6	100.0
No vouchers/No contract	Total number	116	437	63	616
	Percentage	18.8	70.9	10.2	100.0

Table 3.16 shows the countywide distribution of teachers, assistant teachers and directors employed across centers based on the centers' subsidy status.[10] A plurality of assistant teachers (43.4 percent) and a majority of teachers (59.9 percent) in the county were employed in centers not receiving any public funding. Contracted centers employed 21.3 percent of the assistant teachers and the smallest percentage of teachers (14.5 percent) in the county. Centers receiving vouchers employed about one-third of the assistant teachers (35.4) and one-quarter of the teachers (25.5 percent). Based on their relationship to public subsidy, centers varied somewhat with respect to 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 Marin County licensed to serve infants and/or preschoolers employed, on average, seven teachers, two assistant teachers and one director.[11] The vast majority of teachers (94.8 percent, SE =1.8) and assistant teachers (94.4 percent, SE =2.6) in these programs worked with infants and/or preschoolers. The other teachers and assistant teachers worked with school-age children. Table 3.19 shows the average numbers of teachers and assistant teachers in centers with different relationships to public subsidy. Contracted centers, on average, employed more assistant teachers than centers receiving no public dollars.

10 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 of teachers required by licensing in non-contracted programs.

11 Note that 17.5 percent of centers had more than one director, 41.3 percent of centers had one director, and 41.3 percent of centers had no person who served only as an administrative director. In many of the latter centers, the person with director responsibilities was also a teacher.

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

	All staff	Infant/ preschool teaching staff
Assistant teachers	2.4	2.2
	(0.34)	(0.32)
Teachers	6.7	6.2
	(0.74)	(0.64)
Directors	0.8	
	(0.12)	

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
Assistant teachers*	4.2	2.9	1.7
	(0.79)	(0.67)	(0.41)
Number of centers	10	17	36
Teachers	8.7	5.9	6.4
	(2.75)	(0.93)	(0.95)
Number of centers	10	17	36

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

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

In Marin County, teachers and assistants care for and educate approximately 8,000 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 about two-thirds are between the ages of three and five. Seven percent are children under age two, about 16 percent are age two, and 13 percent are in kindergarten or a higher grade. On average, about four percent of the children enrolled in these centers are reported by directors to have special needs.

About 40 percent of centers report caring for at least one child who receives public child care assistance. Twenty-seven percent of centers receive public dollars in the form of vouchers, and 16 percent 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 about one-quarter of centers enrolling 32 or fewer children, and one-quarter enrolling over 86 children.

As shown in Table 3.20, licensed child care centers in Marin County provided services in 2005 to an estimated 6,998 infants and/or preschoolers, not yet in kindergarten. In addition, these centers cared for 1,087 children in kindergarten or a higher grade.[12] (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.[13] Sixty-four percent of these children were preschoolers, ages three to five, 22.5 percent were two years old or younger, and 13.4 percent were in kindergarten or older.

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

	Number enrolled
Under age 2	545
Age 2	1,275
Ages 3 to 5, not yet in kindergarten	5,178
Ages 5 or younger, not in kindergarten	6,998
Ages 5 or older, in kindergarten or higher grade	1,087
All ages	8,085

Center directors were asked about the 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 (96.8 percent, SE=2.2) reported caring for children between the ages of three and five.
- 12.9 percent (SE=4.3) reported caring for children across the entire age span from infancy through school age. This did not vary by the subsidy status of

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

13 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.

the center.

- 39.7 percent (SE=6.2) reported caring for at least one child attending kindergarten or a higher grade.
- 22.2 percent of centers (SE=5.3) enrolled children under two,[14] and none of the centers enrolled infants exclusively.
- 64.5 percent of centers (SE=6.1) 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 one-quarter of centers enrolled 32 or fewer children, and about one-quarter enrolled 86 children or more. As shown in Table 3.23, centers, on average, enrolled 67.5 children across the entire age span and 58.4 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 42.9 percent of centers in Marin County licensed to serve infants and/or preschoolers enrolled at least one subsidized child.

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

	Estimated percentage
Under age 2	22.2
Number of centers	63
Age 2	64.5
Number of centers	62
Ages 3-5, not yet in kindergarten	96.8
Number of centers	63
Ages 5 or older, in kindergarten or higher grade	39.7
Number of centers	63

About one-sixth of centers (15.9 percent) held a contract with Head Start or CDE. (See Table 3.24.) Of the centers that did not hold such a contract, 35.3 percent reported enrolling at least one child who received a voucher. These centers represented 27.0 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.[15] 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 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.

14 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.

15 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. *Estimated Mean Number of Children Served, by Age Group: Countywide*

	Estimated mean number of children served (SE)
Under age 2	20.5 (6.47)
Number of centers	14
Age 2	16.8 (2.61)
Number of centers	40
Ages 3-5, not yet in kindergarten	44.7 (4.11)
Number of centers	61
Ages 5 or older, in kindergarten or higher grade	22.9 (6.19)
Number of centers	25

Table 3.23. *Estimated Mean Number of Children Served: Countywide*

	Estimated mean number of children served (SE)
All ages	67.5 (6.84)
Number of centers	62
Ages 5 or younger, not in kindergarten	58.4 (6.14)
Number of centers	62

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

	Estimated percentage (SE)	*Number of centers*
Head Start or CDE contract	15.9 (4.64)	10
Vouchers/ No contract	27.0 (5.64)	17
No vouchers/ No contract	57.1 (6.28)	36

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

	Estimated mean percentage (SE)
Children receiving voucher subsidy	13.2 (5.27)
Number of centers	18

On average, in centers that cared for at least one child receiving a child care voucher, 13.2 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. Approximately one-third of centers (33.6 percent) enrolled four percent or fewer children on vouchers, while 67.2 percent of centers enrolled nine percent or fewer, and 33.5 percent enrolled more than 10 percent. 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 whether a center held a contract with Head Start or CDE, did not hold a contract but accepted public vouchers for children of low-income families, or did not receive any public dollars. As shown in Tables 3.26 and 3.27, contracted centers were more likely to serve children ages five years and older than centers not serving any subsidized children. On average, contracted centers also served more children of this age group.

We estimate that two-thirds of licensed child care centers in Marin County (66.7 percent, SE=6.0) were private nonprofit agencies. Public agencies (e.g., school districts) operated 12.7 percent (SE=4.2) of centers, and for-profit agencies constituted 20.6 percent (SE=5.1) of centers. As shown in Table 3.28, the auspice of the center did not vary by its subsidy status.

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.[16] As a result, we estimate that 49.2 percent (SE=6.5) of Marin County's centers licensed to serve infants and/or preschoolers cared for children with special needs. On average, children with special needs constituted 7.9 percent (SE=2.1) of the child population in centers that enrolled at least one such child. Only one-quarter of all centers reported that three percent or more of their children had special needs, and less than two percent of centers reported that children with special needs constituted one-third or more of all children enrolled.

Centers serving infants as well as older children were no more likely to enroll children with special needs than were centers serving only children under age two.

Depending on whether, and through which vehicle, they served subsidized children, centers differed in whether they enrolled any children with special needs, as well as in the percentage of their enrolled children who had special needs. Centers that received public funding to serve children of low-income families through a Head Start or CDE contract were more likely to care for at least one child with special needs than were centers that did not care for any subsidized children. (See Table 3.29.) Centers with a Head Start or CDE contract reported

16 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	22.2	40.0	29.4	13.9
	(5.24)	(15.50)	(11.05)	(5.77)
Number of centers	63	10	17	36
Age 2	64.5	50.0	81.3	61.1
	(6.08)	(15.82)	(9.76)	(8.13)
Number of centers	62	10	16	36
Ages 3-5, not yet in kindergarten	96.8	90.0	94.1	100.0
	(2.21)	(9.49)	(5.71)	(0.00)
Number of centers	63	10	17	36
Ages 5 or older, in kindergarten or higher grade*	39.7	70.0	47.1	27.8
	(6.17)	(14.50)	(12.11)	(7.47)
Number of centers	63	10	17	36

*$p < .05$, 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	20.5	19.8	15.8	25.8
	(6.47)	(2.95)	(3.97)	(18.63)
Number of centers	14	4	5	5
Age 2	16.8	12.2	16.5	18.0
	(2.61)	(4.63)	(3.38)	(4.23)
Number of centers	40	5	13	22
Ages 3-5, not yet in kindergarten	44	29.3	43.8	48.9
	(4.11)	(3.57)	(5.75)	(6.32)
Number of centers	61	9	16	36
Ages 5 or older, in kindergarten or higher grade*	22.9	49.4	9.6	14.9
	(6.19)	(17.93)	(2.69)	(4.79)
Number of centers	25	7	8	10

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

enrolling a higher percentage of children with special needs than centers serving children with vouchers or not serving any subsidized children, in part reflecting these centers' mandate to do so, as shown in Table 3.30.

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

	Estimated percentage (SE)				
	Private nonprofit	Public*	For-profit	*Total*	*Number of centers*
Countywide	66.7 (5.99)	12.7 (4.23)	20.6 (5.14)	100.0	63
Head Start/CDE contract	60.0 (15.62)	30.0 (14.61)	10.0 (9.56)	100.0	10
Vouchers/No contract	58.8 (12.03)	11.8 (7.88)	29.4 (11.14)	100.0	17
No vouchers/No contract	72.2 (7.53)	8.3 (4.64)	19.4 (6.65)	100.0	36

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	50.8 (6.40)	22.2 (13.86)	37.5 (12.11)	63.9 (8.01)
At least one child with special needs*	49.2 (6.40)	77.8 (13.86)	62.5 (12.11)	36.1 (8.01)
Total	100.0	100.0	100.0	100.0
Number of centers	61	9	16	36

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

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*	7.9 (2.14)	17.7 (7.35)	6.7 (2.79)	3.6 (0.80)
Number of centers	30	7	10	13

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

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

Compared to Marin 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 somewhat less likely to have completed a four-year or higher college degree, and less likely to have completed high school only.

Nearly one-half of teachers have completed a four-year or graduate degree, and 20 percent have completed a two-year degree, typically with an early childhood focus. Most centers (86.7 percent) employ at least one teacher with a four-year or higher degree.

Assistant teachers in Marin County are also more likely than the average adult 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. Approximately 40 percent of assistant teachers have completed one to 23 college credits related to early childhood development, and more than one-third have completed an AA or higher degree. Only 13 percent have completed neither college credits nor a degree related to early childhood.

Nearly three-quarters of directors have completed a four-year or higher degree, typically with an early childhood focus. Directors are one-and-one-half times more likely than teachers to have completed a four-year or higher degree, and have completed associate degrees at roughly the same rate as teachers.

The majority of degree holders have completed a degree related to early childhood development. Approximately eight percent of those with BA or higher degrees obtained their degree through a foreign institution.

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

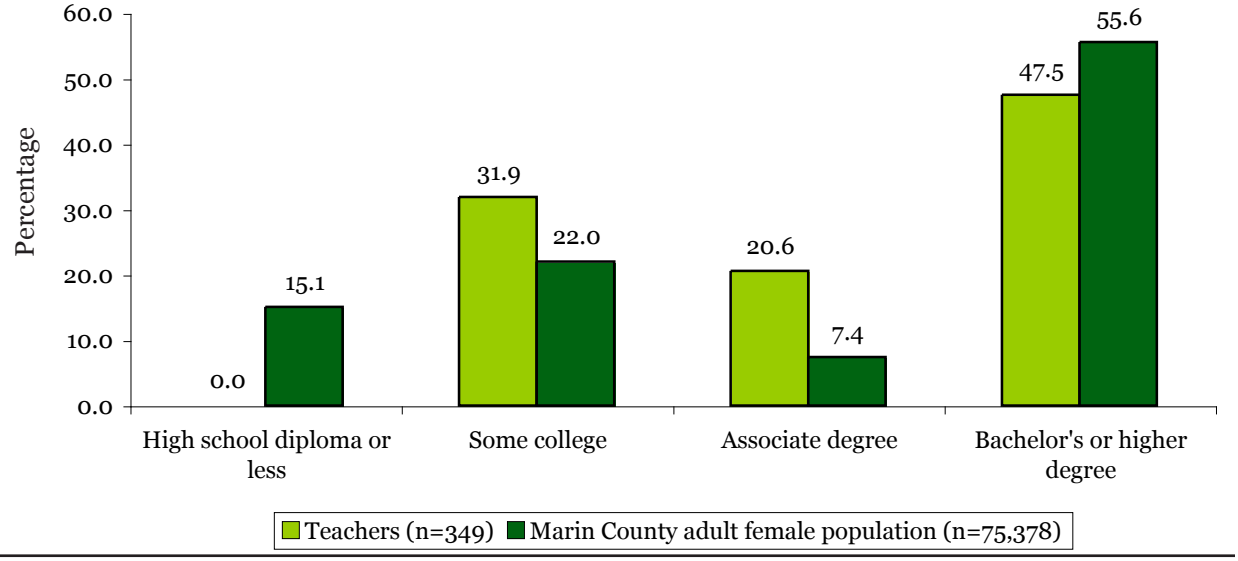
One-half of all teachers with an AA or higher degree hold a Child Development Permit, and just over one-half of all directors hold a Site Supervisor Permit. About 17 percent of teachers and directors with a BA or higher degree have a teaching credential (as opposed to a Child Development Permit) issued 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 Marin 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, all teachers (100 percent) had completed some college-level work, compared to 84.9 percent of women in Marin County. Teachers reported a higher completion rate for an associate degree (20.6 percent) than is true for the average adult female in the county (7.4 percent). Teachers' completion rates for BA or higher

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



degrees[17] (47.5 percent) was slightly lower than that of women in the county as a whole (55.6 percent).

Most centers (86.7 percent) employed teachers with a four-year or higher degree. In centers that employed at least one teacher with a four-year or higher degree, 58.8 percent of teachers, on average, held such degrees. (See Table 3.31.) About two-fifths of all assistant teachers (41.3 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, 60.3 percent of assistants, on average, had done so.

As shown in Figure 3.8, most assistants (86.8 percent) had also completed some college-level work, similar to the average adult female in the county. Assistants had completed two-year degrees at a higher rate (13.2 percent) than the average adult female in Marin County, but at a lower rate than teachers. Assistants had completed four-year or higher degrees at a lower rate (25.6 percent) than teachers or adult females in the county.

Not all centers employed assistant teachers with degrees; assistants with AA degrees were concentrated in 25.6 percent of centers, and those with BA or higher degrees were concentrated in 35.9 percent. In centers that employed at least one assistant teacher with an AA or higher degree, an average of 55.2 percent of assistants held AA degrees, and 68.2 percent held BA or higher degrees, as shown in Table 3.31. In centers that employed at least one assistant who had completed one to 23 credits related to early childhood development, an average of 75.1 had competed such credits. (See Table 3.31.)

Nine out of ten directors had completed an AA or higher degree. Nearly three-quarters of directors (71.2 percent) had completed a BA or higher degree, as shown in Figure 3.8. Slightly less than one-fifth (19.2 percent) had completed an AA degree. Overall, 70.3 percent of centers had at least one director with a BA or higher degree.

Degree Attainment Through a Foreign Institution

Among the 47.5 percent of teachers who had earned a four-year or higher degree, 8.4 percent were reported to have obtained it through a foreign institution. These teachers were concentrated, however, in 21.2 percent of the centers across the county.

Among the approximately 38.8 percent of assistants who had earned an AA or higher degree, 14.9 percent had obtained it through a foreign institution, according to director reports. These assistant teachers were concentrated in 30.0 percent of centers.

Over two-thirds (71.2 percent) of directors had obtained four-year or higher degrees. Of these, only one percent had obtained a degree 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

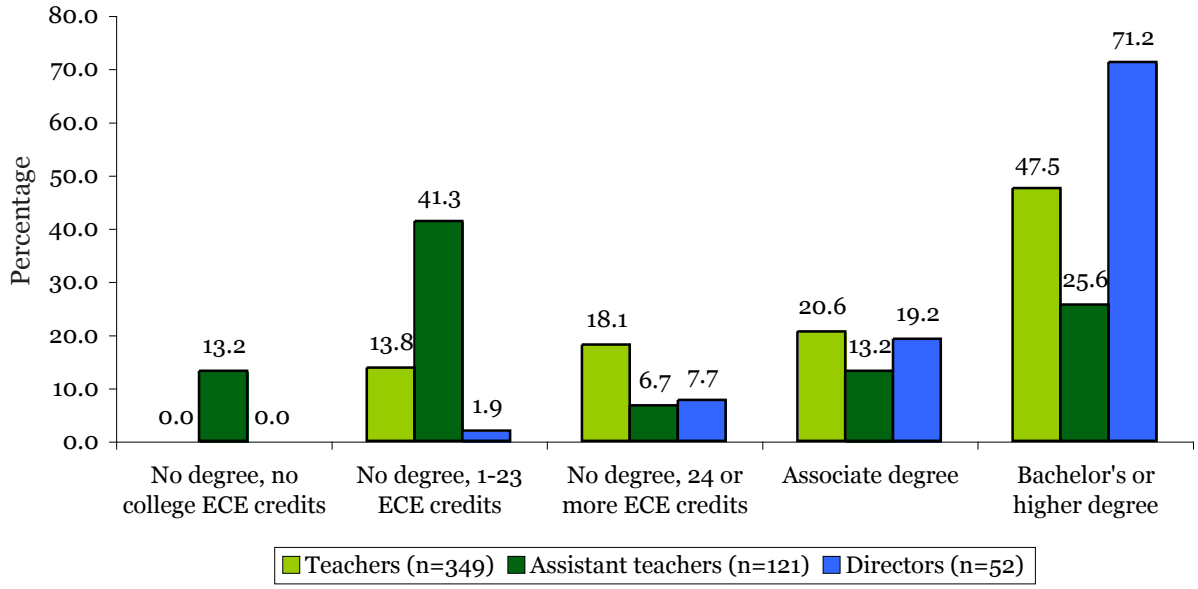
17 We asked directors whether teachers had obtained four-year or higher degrees, but we did not collect independent information on the percentage of teachers with graduate degrees.

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	0.0	33.8	37.8	39.9	58.8
	(0.00)	(4.10)	(4.95)	(4.07)	(4.28)
Number of centers	0	19	25	34	52
Assistant teachers	60.3	75.1	41.0	55.2	68.3
	(10.15)	(5.68)	(11.26)	(10.42)	(8.34)
Number of centers	10	20	7	10	14

[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*



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 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, 47.5 percent of teachers had completed a BA degree or higher, and 20.6 had completed an AA degree. More than one-half of teachers with a BA or higher degree (56.8 percent) and 76.5 percent of teachers with an AA degree had obtained an early childhood-related degree.

Overall, 38.8 percent of assistant teachers had completed an AA, BA or higher degree. About one-third of assistants with an AA or higher degree (31.9 percent) had obtained a degree with an early childhood focus.

Overall, 71.2 percent of directors had completed a BA degree or higher, and 19.2 percent had completed an AA degree. More than one-half of directors with a BA or higher degree (54.1 percent), and 70.0 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, 21.9 percent had earned a four-year degree or higher with an early childhood focus, and 17.7 percent had earned an AA degree with an early childhood focus. Among directors across all levels of educational attainment, 38.5 percent had earned a four-year degree or higher, and 13.5 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-third of all

teachers across the county (31.9 percent) had completed such college credits but had not completed a degree. Eighteen (18.1) percent of teachers had completed 24 or more credits, and 13.8 percent had completed from one to 23 credits, of early childhood-related coursework. No teachers had completed neither a college degree nor any college credits related to early childhood.

Most assistant teachers (61.2 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 41.3 percent of assistant teachers had completed one to 23 credits, 6.7 percent had completed 24 or more credits, and only 13.2 percent had completed neither credits nor a degree.

Directors followed a similar pattern to teachers, with most of those who had not completed degrees having completed 24 or more early childhood-related credits. Less than one-tenth (9.6 percent) of directors across the county had not completed a degree. About eight (7.7) percent of directors had completed 24 or more credits, 1.9 percent had completed less than 24 credits, and 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 87.3 percent of such directors were. We then asked whether their teachers or assistant teachers were currently CARES participants; 43.7 percent of teachers and 24.5 percent of assistant teachers were. More than two-thirds of centers (71.4 percent, SE=6.5) reported employing at least one teacher who was a CARES participant, and more than one-third of centers (27.8 percent, SE=7.5) 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 (67.7 percent, SE=5.1) and assistants (59.7 percent, SE=1.1) 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.

About one-half (52.4 percent) of all teachers with a BA or higher degree, and 44.3 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, 50.0 percent held a permit. One quarter (25.0 percent) of assistant teachers with an AA or higher degree held a permit. We did not collect information about permits for non-degreed teachers or assistant teachers.

Directors were asked whether they held a Site Supervisor Permit intended for program or site directors; 65.5 percent of directors with a BA or higher degree, and 20.0 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.[18]

Among all teachers who had earned a BA or higher degree, 17.4 percent held a California teaching credential, and 7.3 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), 8.1 percent held a California teaching credential. Among all directors who had earned a BA or higher degree, 17.8 percent held a California teaching credential and 11.9 percent held one from another state**.**

18 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 lower percentage of teachers with BA or higher degrees than those 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 who have obtained a BA or higher degree than all other centers.

Educational attainment varies among teachers and assistant with different demographic characteristics. Teachers with bachelor's or higher degrees are older, on average, than those with less education, whereas assistant teachers without degrees are younger than those with degrees. Teachers' educational attainment also varies by ethnicity and language: among those with bachelor's or higher degrees, compared to the ethnic distribution of the teacher population as a whole, White, Non-Hispanic and Asian/Pacific Islander teachers are somewhat over-represented, while African American and Latina teachers are under-represented. More than one-half of Asian/ Pacific Islander and White, Non-Hispanic teachers, but less than 20 percent of African American and Latina teachers, have completed a BA or higher degree. Latina and Asian/Pacific Islander teachers have attained BA or higher degrees at similar rates to their counterparts in the overall county population, while African American and White, Non-Hispanic teachers are less likely to have earned a BA than Marin County adults representing these ethnicities.

With respect to linguistic capacity, teachers with no degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with AA degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, those with no degrees are more likely than those with an AA or higher degree to 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 Marin 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.[19]

As shown in Table 3.32, centers that enrolled infants reported a lower percentage of teachers with AA or BA or higher degrees, and a higher percentage of teachers with one to 23, or 24 or more, early childhood-related college credits. Centers serving infants also reported a lower percentage of assistants, but a higher percentage of directors, with a four-year or higher degree.

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. There were no differences, on average, between these centers with respect to the percentage of centers employing at least one teacher with a California teaching credential. Centers with no infants (66.7 percent, SE=9.78) were more likely to employ teachers with AA degrees who held a Child Development Permit than centers with infants and preschoolers (14.3 percent, SE=13.4).

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

19 Because there were so few programs licensed to serve infants exclusively, we could not compare those programs to those that served 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					
		Bachelor's degree or higher	Associate degree	24 or more ECE credits	1-23 ECE credits	No degree, no ECE credits	*Number of staff*
Teachers	Centers enrolling infants[a]	36.0	17.7	23.5	22.8	0.0	136
	Centers without infants	54.9	22.5	14.6	8.0	0.0	213
	All centers	47.5	20.6	18.1	13.8	0.0	349
Assistant teachers	Centers enrolling infants[a]	6.0	2.9	2.9	64.7	23.5	34
	Centers without infants	33.3	17.3	8.0	32.2	9.2	87
	All centers	25.6	13.2	6.7	41.3	13.2	121
Directors	Centers enrolling infants[a]	80.0	20.0	0.0	0.0	0.0	20
	Centers without infants	65.6	18.8	12.5	3.1	0.0	32
	All centers	71.2	19.2	7.7	1.9	0.0	52

[a] Most of these centers also enroll older children.

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 who had obtained a BA or higher degree than centers receiving public dollars through vouchers or a contract. Contracted centers reported a slightly higher percentage of directors with a BA or higher degree than centers receiving public dollars through a voucher or those receiving no public dollars. With respect to assistants, those in centers receiving no public dollars reported higher levels of education than their counterparts in other types of centers, 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 (91.7 percent, SE=7.7) employed more teachers, on average, with a BA or higher degree who held a Child Development Permit than centers receiving vouchers (72.9 percent, SE=7.8) or receiving no subsidy (61.7 percent, SE=6.5).

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

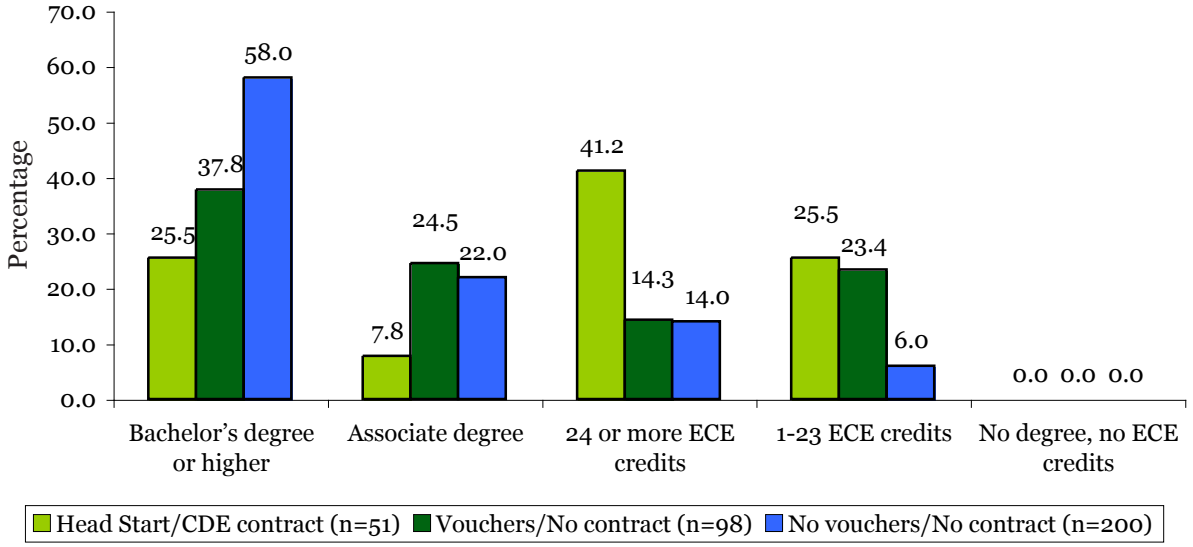


Figure 3.10. *Estimated Educational Attainment of Directors, By Centers' Relationship to Public Subsidy: Countywide*

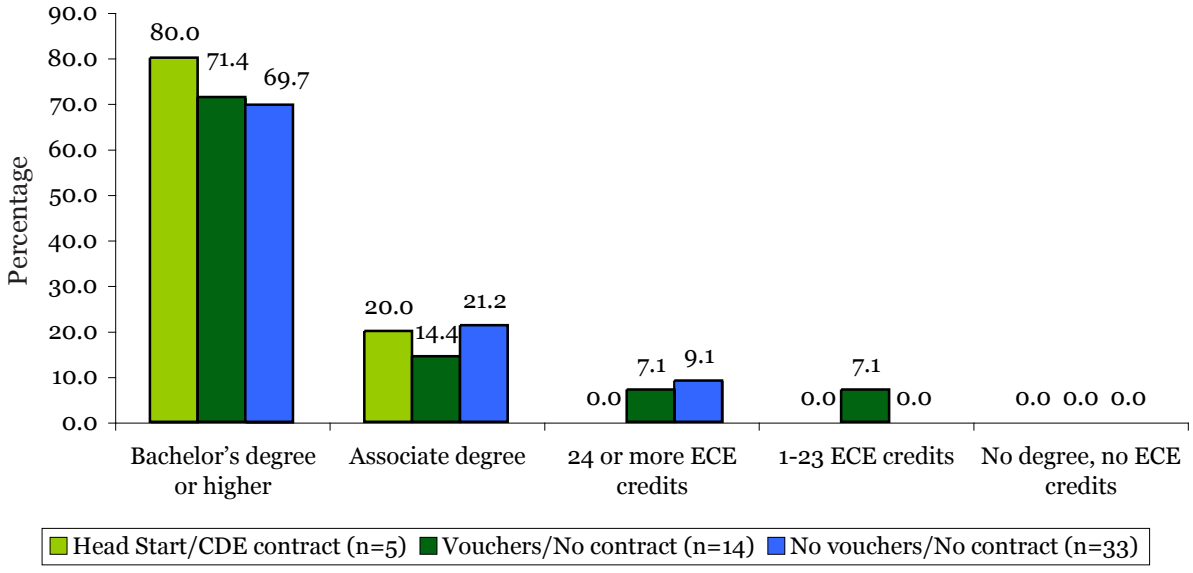
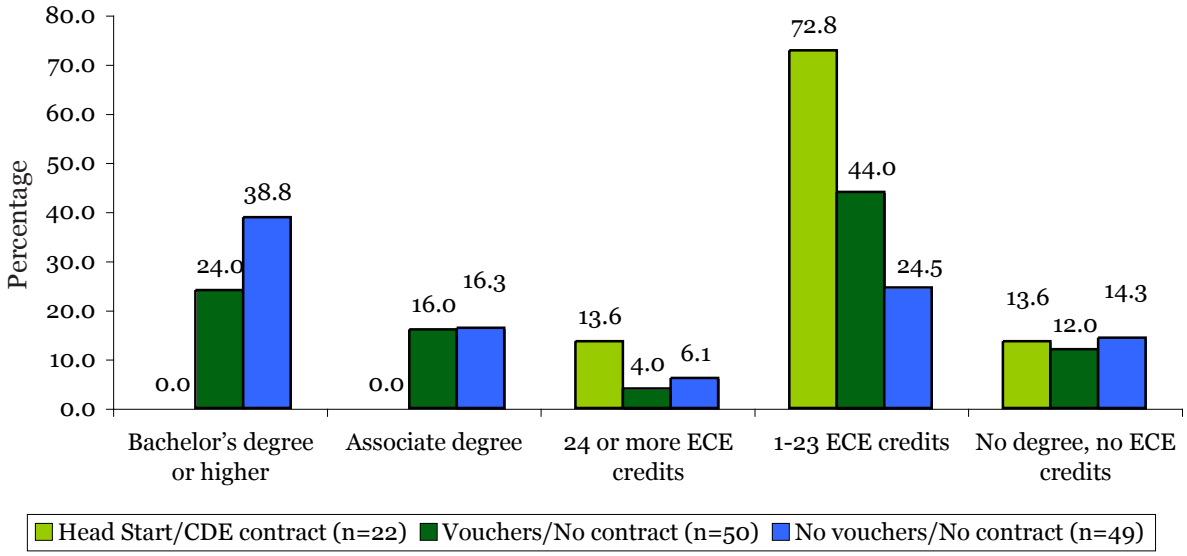


Figure 3.11. *Estimated Educational Attainment of Assistant Teachers, By Centers' Relationship to Public Subsidy: Countywide*



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 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 3.33, teachers with BA or higher degrees were older, on average, than teachers with less education. In particular, nearly one-third of such teachers (33.0 percent) were age 50 or older, compared to 18.8 percent of teachers with AA degrees, and 13.1 percent of teachers with no degrees. Among assistant teachers, those with no degree (52.7 percent) were more likely to be under 30 years old than those who had attained an AA or higher degree (35.3 percent). Centers enrolling infants and preschoolers reported a lower percentage of teachers over 50 years old with BA or higher degrees (18.4 percent) and a higher percentage of assistant teachers under 30 years old without degrees (65.6 percent) than centers serving no infants (BA teachers over 50, 38.8 percent; assistants under 30 without degrees, 42.9 percent). Centers holding a Head Start or CDE contract reported a higher percentage of BA or higher teachers over 50 years old (47.1 percent) than centers receiving vouchers (27.1 percent) or those receiving no public dollars (32.8 percent). Contracted centers also employed a higher percentage of assistant teachers with no degree who were younger than 30 years old (69.6 percent) than did centers receiving vouchers (43.3 percent) or centers receiving no public subsidies (47.6 percent).

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 Marin 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.

Table 3.33. *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	23.7	18.8	31.9	26.3
30 to 39 years old	30.7	29.4	18.8	41.4
40 to 49 years old	21.3	18.8	30.5	19.2
50 years and older	24.3	33.0	18.8	13.1
Total	100.0	100.0	100.0	100.0
Number of staff	338	170	69	99

Table 3.34. *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	76.7	83.3	73.9	68.5	57.3	57.1	57.3
Latina	9.8	3.6	8.7	19.8	29.9	19.1	36.0
African American	2.6	0.6	7.2	2.7	5.1	7.1	4.0
Asian/Pacific Islander	7.2	9.5	2.9	6.3	6.8	14.3	2.7
American Indian or Alaskan Native	1.1	1.8	0.0	0.9	0.0	0.0	0.0
Multiethnic	0.6	0.0	1.5	0.9	0.0	0.0	0.0
Other	2.0	1.2	5.8	0.9	0.9	2.4	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of teachers	348	168	69	111	117	42	75

The ethnic distribution of teachers and assistant teachers varied across levels of educational attainment, as shown in Table 3.34. White, Non-Hispanic teachers comprised 76.7 percent of all teachers, and 83.3 percent of teachers with a BA or higher degree. Latinas comprised 9.8 percent of all teachers, but only 3.6 percent of teachers with BA or higher degrees. African American teachers comprised 2.6 percent of all teachers, and 0.6 percent of teachers with a BA or higher degree. Asian/Pacific Islanders constituted only 7.2 percent of all teachers, but 9.5 percent of those who reported a BA or higher degree as their highest level of educational attainment. Among assistant teachers with AA or higher degrees, White, Non-Hispanics were proportionately represented and Latinas were under-represented.

In determining the distribution of educational attainment (as represented by completion of degrees) within various ethnic groups, we found that 52.4 percent of White, Non-Hispanic, 11.1 percent of African American, 17.6 percent of Latina, and 64.0 percent of Asian/Pacific Islander teachers had completed a four-year degree or higher. (See Table 3.35.) Among assistant teachers, 35.8 percent of White, Non-Hispanics and 22.9 percent of Latinas 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 Marin County's overall adult population. For example, were Latina teachers more or less likely than other Latino adults in Marin County to have achieved a BA degree? To make this comparison, we examined data from the 2000 U.S. Census on Marin County adults' attainment of BA or higher degrees. Latina and Asian/Pacific Islander teachers had attained BA or higher degrees at similar or higher rates than their counterparts in the overall county population (all Latino adults, 18.1 percent; all Asian/Pacific Islander adults, 54.7 percent). White, Non-Hispanic and African American teachers were less likely to have earned a BA than their Marin County adult counterparts (all White, Non-Hispanic adults, 56.0 percent; all African American adults, 16.8 percent).

3) Overall Educational Attainment, by Language

Since many of Marin 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, 24.6 percent of teachers and 41.3 percent of assistant teachers had such a capacity. Teachers with no degrees were slightly more likely than either teachers with BA or higher degrees or teachers with AA degrees to have this capacity, as shown in Table 3.36. 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, those with AA or higher degrees (31.9 percent) were less likely that those with no degrees (47.3 percent) to speak a language other than English fluently.

Table 3.36 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 slightly higher percentage of such teachers at all educational levels than centers not serving infants, most notably teachers with AA degrees. Centers holding a contract with Head Start or CDE employed a higher percentage of teachers without degrees who spoke a language other than English than did centers receiving vouchers or receiving no public funding.

Table 3.35. *Estimated Percentage of Teachers with a Bachelor's Degree or Higher, Associate Degree, or No Degree, By Ethnicity: Countywide*

	Estimated percentage				
	Bachelor's or higher degree	Associate degree	No degree	*Total*	*Number of teachers*
White, Non-Hispanic	52.4	19.1	28.5	100.0	267
Latina	17.6	17.6	64.8	100.0	34
African American	11.1	55.6	33.3	100.0	25
Asian/Pacific Islander	64.0	8.0	28.0	100.0	25

Table 3.36. *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	22.3	23.6	28.8
Number of teachers	166	72	111
Centers enrolling infants	24.5	29.2	31.7
Number of teachers	49	24	63
Centers without infants	21.4	20.8	25.0
Number of teachers	117	48	48
Head Start/CDE contract	7.7	25.0	41.2
Number of teachers	13	4	34
Vouchers/No contract	27.0	25.0	21.6
Number of teachers	37	24	37
No vouchers/No contract	22.4	22.7	25.0
Number of teachers	116	44	40

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

Only about one-third of centers employ teachers who have participated in non-credit training focused on dual language learning in young children, and less than one-fifth of centers employ teachers who have completed college coursework in that subject, despite the growing numbers of young children in Marin 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-quarters of centers report that at least one of their teachers has participated in non-credit training, and about three-fifths 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 higher levels of teacher professional development related to working with such children.

As Marin 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'[20]professional preparation related to dual language learners and/or children with special needs.

Preparation to Work with Young Children Acquiring a Second Language

In 2005, slightly more than one-fifth of children entering public kindergarten in Marin 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.

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 teachers in Marin

20 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.

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. Most had not: directors reported that, on average, only 19.2 percent of teachers had received non-credit training, and only 11.2 percent had completed college coursework, focused on dual language learning in young children. (See Table 3.37.) We estimate that 64.2 percent of centers had no teachers with non-credit training, and 82.4 percent had no teachers who had taken college courses, related to dual language learning in children. (See Table 3.38.)

Centers serving infants reported a smaller percentage of teachers with credit-bearing courses related to dual language learning; such centers reported that, on average, 2.0 percent of their teachers (SE=2.0) had participated in such credit-bearing training, compared to 13.4 percent of teachers (SE=4.9) in centers serving only older children.

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 46.4 percent of teachers, on average, had participated in non-credit training related to dual language learning in young children. Centers receiving no public dollars (14.9 percent) or those receiving vouchers for at least one child (13.2 percent) were less likely to report that teachers 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 3.39, there were no statistically significant differences in the educational level of teachers between centers reporting at least one teacher with professional development related to dual language learning and centers reporting no teachers with this training or 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 in terms of 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

Table 3.37. *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	19.2 (4.42)
Number of centers	53
College credits	11.2 (3.97)
Number of centers	51

Table 3.38. *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	35.8 (6.65)
Number of centers	53
At least one teacher with college credits	17.6 (5.39)
Number of centers	51

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*

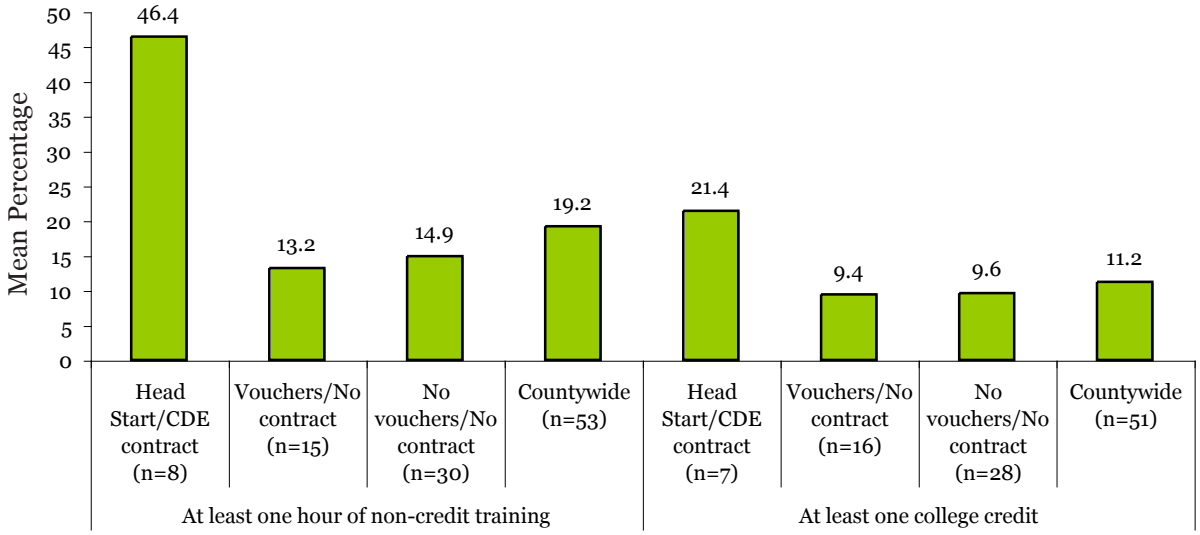


Table 3.39. *Estimated Mean Percentage of Teachers with Associate or Higher Degrees in Centers with and without Teachers with Non-Credit Training and/or College Credits Related to Dual Language Learning Children: Countywide*

	Mean percentage (SE)	
	Teachers with an associate degree	Teachers with a bachelor's degree or higher
No teachers with non-credit training	24.9	52.8
	(5.20)	(6.37)
Number of centers	33	33
At least one teacher with non-credit training	23.0	47.0
	(5.79)	(7.59)
Number of centers	18	18
No teachers with college credits	24.9	49.0
	(4.55)	(5.22)
Number of centers	41	41
At least one teacher with college credits	11.9	74.6
	(6.54)	(14.75)
Number of centers	8	8

changes in federal law,[21] 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.

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.

Table 3.40. *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	74.1 (6.02)
Number of centers	54
At least one teacher with college credit	58.8 (6.96)
Number of centers	51

Overall Levels of Special Needs-Related Training and Courses

Approximately three-quarters (74.1 percent) of centers reported that at least one of their teachers had participated in non-credit training related to children with special needs. Fewer centers (58.8 percent) reported that at least one teacher had participated in college credit-bearing courses on children with special needs. (See Table 3.40.) As shown in Table 3.41, on average, centers reported that 54.9 percent of their teachers had participated in non-credit training and 32.8 percent in college courses related to children with special needs.

The average percentage of teachers who had participated in non-credit training and college credits related to children with special needs did not vary by centers' relationship to public subsidy (see Table 3.41), but did vary by the average educational background of teaching staff. Centers that reported at least one

21 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).

teacher with non-credit training related to children with special needs also reported a higher average percentage of teachers with a BA degree or higher, as shown in Table 3.42. There were no differences in educational attainment between centers with teachers that participated in credit-bearing courses related to special needs and those without such teachers.

The average percentage of teachers who had participated in college credits related to children with special needs varied by whether centers served infants or only older children. Centers serving infants reported that on average, 10.7 percent (SE=5.4) of their teachers had participated in college credits, compared to 36.9 percent of centers (SE=5.7) serving only older children.

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

Overall, 49.2 percent of centers (SE=6.5) reported caring for at least one child with special needs. As shown in Tables 3.43 and 3.44, centers caring for at least one such child employed, on average, a higher percentage of teachers who had participated in non-credit training and credit-bearing courses related to special needs than did centers caring for no such children. In centers caring for at least one child with special needs, 65.9 percent of teachers had participated in relevant non-credit training, whereas only 42.3 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 also reported a higher average percentage of teachers (44.6 percent) who had completed college credits related to children with special needs than did centers that did not enroll any such children (21.6 percent).

Table 3.41. *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	Vouchers/ No contract	No vouchers/ No contract
Non-credit training	54.9 (5.75)	53.8 (16.10)	57.3 (10.06)	53.9 (8.00)
Number of centers	54	8	16	30
College credits	32.8 (5.01)	48.6 (13.72)	33.6 (9.69)	28.0 (6.45)
Number of centers	51	8	14	29

Table 3.42. *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	19.0 (8.26)	33.2 (8.75)	13
At least one teacher with non-credit training	25.4 (4.35)	55.1 (5.36)	39
No teachers with college credits	23.1 (7.60)	51.2 (8.51)	20
At least one teachers with college credits	23.5 (4.50)	54.8 (6.36)	29

*$p < .01$, Center with no teachers with non-credit training < centers with at least one teacher with non-credit training.

Table 3.43. *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	42.3 (8.22)
At least one child with special needs*	65.9 (7.62)
Number of centers	52

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

Table 3.44. *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	21.6 (6.58)
At least one child with special needs*	44.6 (7.36)
Number of centers	49

**p* < 0.05, Centers that care for at least one child with special needs > Centers with no children with special needs.

Discussion

This report provides the latest comprehensive profile of Marin 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 Marin County's licensed child care centers?
2. What are the characteristics of children in Marin 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 Marin 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?
6.

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

In Marin County, a teacher in a child care center licensed to serve infants and/or preschoolers is much more likely to be White, Non Hispanic than to be a woman of color. Assistant teachers are more ethnically diverse than teachers and directors, but teachers and assistants are both more ethnically diverse than K-12 teachers. Compared to women in Marin County, teachers and assistant teachers are more likely to be under age 30. Approximately one-quarter of teachers, two-fifths of assistant teachers, and one-fifth of directors are able to speak a language other than English fluently, most typically Spanish.

These demographic profiles vary, however, by such center characteristics as age group of children served and relationship to public subsidy. For example, centers serving infants are more likely than those serving only older children to employ teachers who speak a language other than English.

About three-quarters of assistant teachers, and slightly more than one-half of teachers, have worked in their present jobs for less than five years, while the typical director has been on the job for more than five years. Countywide, the highest-paid teachers with a BA earn, on average, $19.95 an hour. The highest-paid assistants can expect to earn $12.30 an hour, on average, if they work in a center receiving public subsidy through vouchers, and $14.33 an hour in a center that does not receive any public funding.

Marin County's early care and education (ECE) workforce is more ethnically and linguistically diverse than its teachers of Grades K-12. More than 90 percent of the county's K-12 teachers, but only about three-quarters of its child care center teachers, are White, Non-Hispanic. Child care center teachers also more closely match the diversity of children in the state, 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 Marin 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. Our data reveal substantial divisions by ethnicity and language that require attention. Stated simply, most child care center directors were White, Non-Hispanic, whereas more than one-half of assistant teachers were women of color. For example, no centers reported having a Latina director, while centers reported that 9.8 percent of teachers and 29.9 percent of assistant teachers were Latinas. Similarly, about two-fifths of assistant teachers could communicate with children in a language other than English, whereas only 23.2 percent of teachers and 21.2 percent of directors reported such linguistic skills.

In light of the continuing efforts to upgrade the knowledge and skills of Marin 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 Marin County's child care centers. Twice as many teachers in child care centers (22 percent in California and Marin County) as 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. Slightly less than one-half of teachers and only one-quarter 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. On average, the highest-paid teachers in this study with BA or higher degrees earned $19.95 per hour, or $41,496 per year, compared to a mean annual salary for Marin County elementary school teachers of $58,559 (California Department of Education, 2005), 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 Marin County child care centers licensed to serve infants and/or preschoolers?

In Marin County, teachers and assistants care for and educate approximately 8,000 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 about two-thirds are between the ages of three and five. Seven percent are children under age two, about 16 percent are age two, and 13 percent are in kindergarten or a higher grade. On average, about four percent of the children enrolled in these centers are reported by directors to have special needs.

About 40 percent of centers report caring for at least one child who receives public child care assistance. Twenty-seven percent of centers receive public dollars in the form of vouchers, and 16 percent 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 about one-quarter of centers enrolling 32 or fewer children, and one-quarter enrolling over 86 children.

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 58 children birth to five years and employ about seven teachers and two assistant teachers, one-quarter of centers are very small businesses, and 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 case. Remarkably, more centers now receive public dollars in the form of vouchers than through contracts. 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 Marin County's child care centers?

Compared to Marin 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 somewhat less likely to have completed a four-year or higher college degree, and less likely to have completed high school only.

Nearly one-half of teachers have completed a four-year or graduate degree, and 20 percent have completed a two-year degree, typically with an early childhood focus. Most centers (86.7 percent) employ at least one teacher with a four-year or higher degree.

Assistant teachers in Marin County are also more likely than the average adult 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. Approximately 40 percent of assistant teachers have completed one to 23 college credits related to early childhood development, and more than one-third have completed an AA or higher degree. Only 13 percent have completed neither college credits nor a degree related to early childhood.

Nearly three-quarters of directors have completed a four-year or higher degree, typically with an early childhood focus. Directors are one-and-one-half times more likely than teachers to have completed a four-year or higher degree, and have completed associate degrees at roughly the same rate as teachers.

The majority of degree holders have completed a degree related to early childhood development. Approximately eight percent of those with BA or higher degrees obtained their degree through a foreign institution.

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

One-half of all teachers with an AA or higher degree hold a Child Development Permit, and just over one-half of all directors hold a Site Supervisor Permit. About 17 percent of teachers and 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, directors in Marin County child care centers have obtained levels of education that exceed that of the average Marin County adult female, and teachers have attended college and completed associate degrees at higher rates, but have completed BA or higher degrees at slightly lower rates, than the county's adult female population, challenging the stereotype that those who work with young children are minimally educated. Even assistant teachers have attended college at higher 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 two different sets of standards govern staff qualifications in California child care centers, with more stringent requirements set for staff working in state-contracted programs. Additionally, centers receiving no public dollars, depending on the income of families they serve, may have additional resources for attracting and retaining more educated staff. 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, our findings reveal further variation among centers. It is encouraging that more than two-thirds 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, suggesting that many centers were engaged in upgrading the education and training of their staff. Efforts to extend such programs to additional child care centers and to more assistant teachers are worthy of attention.

With respect to certification, about one-half of teachers and almost two-thirds of directors with a BA degree or higher are Child Development Site Supervisor Permit holders, reflecting California's current regulatory environment, which only requires permits for staff in contracted programs. The reported rates of permit holders would be even lower were it not for CARES programs, which in recent years have begun requiring participants to acquire Child Development Permits. This rate of certification is in stark contrast to 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 lower percentage of teachers with BA or higher degrees than those 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 who have obtained a BA or higher degree than all other centers.

Educational attainment varies among teachers and assistant with different demographic characteristics. Teachers with bachelor's or higher degrees are older, on average, than those with less education, whereas assistant teachers without degrees are younger than those with degrees. Teachers' educational attainment also varies by ethnicity and language: among those with bachelor's or higher degrees, compared to the ethnic distribution of the teacher population as a whole, White, Non-Hispanic and Asian/Pacific Islander teachers are somewhat over-represented, while African American and Latina teachers are under-represented. More than one-half of Asian/ Pacific Islander and White, Non-Hispanic teachers, but less than 20 percent of African American and Latina teachers, have completed a BA or higher degree. Latina and Asian/Pacific Islander teachers have attained BA or higher degrees at similar rates to their counterparts in the overall county population, while African American and White, Non-Hispanic teachers are less likely to have earned a BA than Marin County adults representing these ethnicities.

With respect to linguistic capacity, teachers with no degrees, on average, are somewhat more likely than either teachers with BA or higher degrees, or teachers with AA degrees, to have the capacity to communicate with children in a language other than English. Among assistant teachers, those with no degrees are more likely than those with an AA or higher degree to speak a language other than English fluently.

A well-trained, culturally diverse and competent workforce serving young children, wherever they live in the state 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 preschool classrooms.

While a sizeable portion of teachers and assistants working in centers were found to be younger than the average adult female in the state, 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). Teachers with BA and higher degrees were more likely to be over age 50 and approaching retirement at a time when the demand is rising for teachers with such qualifications. This suggests that in addition to assisting current members of the workforce in achieving college degrees, Marin County also needs to recruit young college graduates to early childhood teaching positions, which should include a strategy to improve compensation, in order to make such employment more attractive to well-educated young candidates.

With regard to educational attainment by ethnicity, Asian/Pacific Islander and White, Non-Hispanic teachers demonstrated very different patterns from African American and Latina teachers. Asian/Pacific Islanders and White, Non-Hispanics comprised a higher proportion of teachers with college degrees than of teachers as a whole. Latinas and African Americans, however, were under-represented among degree holders. Many communities recognize this phenomenon and are engaged in efforts to make college more accessible to under-represented teachers and assistant teachers, in part by providing cohort classes in the community, 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 and Asian/Pacific Islander teachers had attained BA or higher degrees at similar or higher rates than their counterparts in the overall county population. White, Non-Hispanic and African American teachers were less likely to have earned a BA than their Marin adult counterparts. 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 some 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?

Only about one-third of centers employ teachers who have participated in non-credit training focused on dual language learning in young children, and less than one-fifth of centers employ teachers who have completed college coursework in that subject, despite the growing numbers of young children in Marin 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-quarters of centers report that at least one of their teachers has participated in non-credit training, and about three-fifths 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 higher levels of teacher professional development related to working with such children.

Our data show that the vast majority of child care center teachers in Marin 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).

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, 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 Marin County's young children.

* * * * *

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 Marin 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 Marin 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	45.6	59.0	39.5
30 to 39 years	26.4	20.5	29.1
40 to 49 years	22.4	10.3	27.9
50 years or older	5.6	10.3	3.5
Total	100.0	100.0	100.0
Number of assistant teachers	125	39	86

[a] Most 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	45.6	63.0	38.0	43.8
30 to 39 years	26.4	22.2	18.0	37.5
40 to 49 years	22.4	11.1	36.0	14.6
50 years or older	5.6	3.7	8.0	4.2
Total	100.0	100.0	100.0	100.0
Number of assistant teachers	125	27	50	48

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	76.7	72.1	79.7
	Latina	9.8	16.2	5.7
	African American	2.6	4.4	1.4
	Asian/Pacific Islander	7.2	3.7	9.4
	American Indian or Alaskan Native	1.1	0.7	1.4
	Multiethnic	0.6	0.7	0.5
	Other	2	2.2	1.9
	Total	100.0	100.0	100.0
	Number of teachers	348	136	212
Assistant teachers	White, Non-Hispanic	57.3	61.5	55.1
	Latina	29.9	33.3	28.2
	African American	5.1	5.1	5.1
	Asian/Pacific Islander	6.8	0.0	10.3
	American Indian or Alaskan Native	0.0	0.0	0.0
	Multiethnic	0.0	0.0	0.0
	Other	0.9	0.0	1.3
	Total	100.0	100.0	100.0
	Number of assistant teachers	117	39	78
Directors	White, Non-Hispanic	92.0	95.0	90.0
	Latina	0.0	0.0	0.0
	African American	2.0	5.0	0.0
	Asian/Pacific Islander	4.0	0.0	6.7
	American Indian or Alaskan Native	0.0	0.0	0.0
	Multiethnic	0.0	0.0	0.0
	Other	2.0	0.0	3.3
	Total	100.0	100.0	100.0
	Number of directors	50	20	30

*Most 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	50.8 (6.40)	50.0 (13.37)	51.1 (7.29)
At least one child with special needs	49.2 (6.40)	50.0 (13.37)	48.9 (7.29)
Total	100.0	100.0	100.0
Number of centers	61	14	47

[a] Most of these centers also enroll older children.

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	45.6	35.3	52.7
30 to 39 years old	26.4	33.3	21.6
40-49 years old	22.4	25.5	20.3
50 years and older	5.6	5.9	5.4
Total	100.0	100.0	100.0
Number of staff	125	51	74

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	37.9	28.6	45.8	43.1	59.0	28.6	65.6
	30 to 39 years old	30.6	36.7	20.9	29.4	20.6	28.6	18.7
	40 to 49 years old	20.2	16.3	25.0	21.6	10.2	14.2	9.4
	50 years and older	11.3	18.4	8.3	5.9	10.2	28.6	6.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of staff	124	49	24	51	39	7	32
Centers without infants	Under 30 years old	15.4	14.9	24.4	8.3	39.5	36.3	42.9
	30 to 39 years old	30.8	26.5	17.8	54.2	29.1	34.1	23.8
	40 to 49 years old	22.0	19.8	33.4	16.7	27.9	27.3	28.5
	50 years and older	31.8	38.8	24.4	20.8	3.5	2.3	4.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of staff	214	121	45	48	86	44	42
Head Start/ CDE contract	Under 30 years old	39.5	29.4	0.0	54.6	63.0	25.0	69.6
	30 to 39 years old	23.3	23.5	25.0	22.7	22.2	50.0	17.4
	40 to 49 years old	11.6	0.0	50.0	13.6	11.1	25.0	8.7
	50 years and older	25.6	47.1	25.0	9.1	3.7	0.0	4.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of staff	43	17	4	22	27	4	23

[a] Most 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	25.5	18.9	45.8	18.9	38.0	30.0	43.3
	30 to 39 years old	31.6	24.3	29.2	40.6	18.0	20.0	16.7
	40 to 49 years old	24.5	29.7	12.5	27.0	36.0	40.0	33.3
	50 years and older	18.4	27.1	12.5	13.5	8.0	10.0	6.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of staff	98	37	24	37	50	20	30
No vouchers/ No contract	Under 30 years old	19.3	17.2	26.8	17.5	43.7	40.7	47.6
	30 to 39 years old	32.0	31.9	12.2	52.5	37.5	40.7	33.3
	40 to 49 years old	21.8	18.1	39.0	15.0	14.6	14.9	14.3
	50 years and older	26.9	32.8	22.0	15.0	4.2	3.7	4.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number of staff	197	116	41	40	48	27	21

[a] Most 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	19.2	17.1	19.8
	(4.43)	(8.72)	(5.18)
Number of centers	53	12	41
At least one college credit	11.2	2.0	13.4
	(3.97)	(2.00)	(4.87)
Number of centers	51	10	41

[a] Most 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 Marin 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 other 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 Marin County was 120. We completed interviews with 63 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: 120/63=1.90.
2. Multiply the sums of children in each group in the sample, by the multiplier (1.90) 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 (1.90) to calculate the estimated total number of center staff in each job category.

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