CENTER FOR THE STUDY OF
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Introduction

The creation of a universal preschool system for California has become the focus of much of the current long-range planning and discussion in the state about the quality and availability of early care and education programs. The California Master Plan for Education places universal preschool front and center, and philanthropic, policy, business and labor organizations – including state and local First 5 Commissions, the David and Lucile Packard Foundation, a number of state legislators, and several unions – are also focusing their energies in this direction, with the idea of converging many efforts over the next decade to build a universally available, publicly supported preschool system for three- and four-year-old children.

Since universal preschool for California is still in its early planning phase, most of the details remain to be decided, including the scope and structure of the program, whether or not it will be coordinated by the public schools, where it will be housed, whether it will be full-day or part-day (with or without wrap-around care), the extent to which it will include family child care, and whether it will be free of charge or based, at least in part, on parent fees. But the state Master Plan for Education, as well as many proponents of universal preschool, appear to agree thus far that "raising the bar" on the required level of education and training for preschool teachers will be an essential building block of the program (see Box 1).

Proponents of universal preschool are interested in seeking higher standards of education and training for preschool teachers for a variety of reasons:

- Considerable evidence from research has associated BA-level preparation for early care and education teachers with higher-quality care (Barnett, 2003; Whitebook, 2003).
- Higher teacher standards could be an important way to link preschool/pre-Kindergarten programs with the K-12 educational system, especially in terms of parity in teacher compensation, and ensuring better transitions for children from preschool to kindergarten.

- The educational requirements currently in place for California's early care and education workforce are relatively weak compared to other states:[1] both the Title 5 requirements for teachers in State Preschools and state-contracted centers, and especially, the less stringent Title 22 requirements governing other programs.

But there are also a number of concerns about raising standards, despite the advantages of doing so. We don't know yet how big a task this would be, and there is concern that a new set of standards could simply add another layer of confusion to a system already split between Title 5 and Title 22 regulations. There is currently no preschool teacher credential in place in California,[2] no clearly delineated set of skills and competencies for preschool teachers, and no guarantee that achieving higher standards of education would be linked to earning higher levels of compensation. Within the field, there is also concern that teachers and providers would need significant support in pursuing more education and training to meet higher standards; if not, a number of current practitioners could be left out, especially people of color or those whose first language is other than English. The underlying concern here is that a universal preschool workforce must not only be well educated, but culturally and linguistically compatible with the children it serves.

The involvement of California's colleges and universities is essential in building an effective universal preschool system, but it remains uncertain, for a number of reasons, how ready and able the state's higher education system will be to respond to new standards:

- Additional resources will be needed to create and/or expand programs, and public institutions are already under great stress due to the state's budget crisis;
- Despite the many strengths of California's public higher education system, its three layers (community colleges, four-year institutions and graduate programs) do not sufficiently communicate or coordinate with each other;
- Four-year institutions have generally come to assume that the charge for preparing the early care and education workforce is at the community college level, and need assistance (and greater resources) in understanding their widening role in the effort, in order to develop new programs or retool existing programs in response to new standards.

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[1] In California, two sets of regulations (Title 22 and Title 5) establish qualifications for teaching and administrative staff employed by child care centers. Title 5 regulations govern centers holding a contract with the State Department of Education (excluding the voucher program), and are more rigorous than Title 22 regulations, which cover all for-profit and non-contracted nonprofit centers (see Table 1). When an individual cares for children from more than one unrelated family in a home environment, the California Department of Social Services requires that the provider obtain a license to provide child care services. Fifteen hours of training on preventive health practices are the only training requirements for licensed providers, and none exist for license-exempt providers.

[2] Unlike K-12 teachers in the public schools, those working in licensed child care centers and homes do not have to obtain a credential. Those working in state-contracted child care centers, however, must obtain a Child Development Permit, in which a master teacher is defined as having 24 units of early childhood education plus 16 units of general education. Currently, the state's only early childhood credential is a specialist credential intended for those who have already obtained an elementary school credential.

In part, California's community colleges have become the mainstay of workforce development in early care and education because of accessibility (i.e., location and cost), but also because our current regulatory system (both Title 5 and Title 22) requires less than an AA degree. This was not always the case in California – which at one time had a Preschool to Grade 3 credential, and had many more BA-level early educators than at present – but it is increasingly so, as a variety of ECE programs have been discontinued at the four-year and graduate levels, and as class size reduction in grades K-12 (and the resulting need for many more teachers) shifted the focus of many child development offerings at California State University, University of California and private college campuses from preschool to early elementary education.[3]

BOX 1: From ***The California Master Plan for Education (2002):***

To be responsive to Californians' needs, our state must have a comprehensive, coherent and flexible education system in which all sectors, from pre-kindergarten through postsecondary education, are aligned and coordinated into one integrated system. (p. 9)

The State should adopt more rigorous education requirements and certification standards for all individuals who teach young children in center-based settings or who supervise others who care for young children, and should immediately require a minimum program of state-approved professional development for all publicly funded providers of care to young children. (Recommendation 6.5, p. 29)

The State should expand programs to attract talented individuals, especially from underrepresented groups, into pre-K-12 teaching and postsecondary faculty careers, through forgivable loans and teaching fellowships. (Recommendation 8.1, p. 33)

California colleges and universities should strive to ensure that their schools of education have the resources needed to produce a substantial proportion of the teachers and faculty needed to staff our preschools, K-12 and adult schools, colleges and universities, over the next decade and beyond. (Recommendation 8.2, p. 33)

[3] For a more in-depth discussion of these workforce issues, see Bellm & Whitebook (2003).

Table 1. ***Required Staff Qualifications: Title 22 and Title 5, California Code of Regulations***

Position	**Title 22**	**Title 5**
Assistant Teacher	None	6 units of college-level work in early childhood education (ECE)
Associate Teacher	Not specified	12 units of college-level work in ECE, including designated core courses
Teacher	12 units of college-level work in ECE	24 units of college-level work in ECE, including designated core courses and 16 general education units
Master Teacher	Not specified	Same as teachers, plus 2 units of adult supervision and 6 specialization units
Director/Site Supervisor	Same as teachers, plus college-level course in supervision and administration	AA or BA degree with 24 units of ECE, including supervision courses

Available Data on the Educational Background of California's Early Care and Education Workforce

This policy brief is concerned with assessing the size of the task of raising teacher standards for universal preschool. While not all universal preschool teachers will be drawn from the existing early care and education workforce, many are likely to be. And especially since preschool services will probably be delivered across different sectors of the early care and education system, an important starting point is to look at the existing workforce to assess its current level of education and training.

While such workforce data are not available for the entire state, we do have recent data on education and training from several counties that participated in the California Child Care Workforce Study (Whitebook, Sakai, Voisin, Duff, Waters Boots, Burton & Young, 2003; county-specific reports available at www.rrnetwork.org or www.ccw.org). This study, a pilot project funded by the David and Lucile Packard Foundation to gather data on the wages, qualifications and tenure of licensed child care center staff and licensed family child care providers, was conducted by the Center for the Study of Child Care Employment at the University of California at Berkeley, the California Child Care

Resource and Referral Network, and the Center for the Child Care Workforce. Data on center-based staff are available from this study on Alameda, Kern, Monterey, San Francisco, San Mateo, Santa Clara and Santa Cruz Counties, and data on home-based providers are available for the same counties plus San Benito.[4] Based on interviews conducted in the fall of 2001, these data offer information on differences and similarities across counties and across sectors of the early care and education field.[5]

In part, the California Child Care Workforce Study set out to answer the following questions:

- What is the educational attainment of center-based teaching staff and family child care providers in these counties?
    - What percentage of center-based teaching staff, and family child care providers, currently has a bachelor's (BA) degree?
    - What percentage of center-based teaching staff, and family child care providers, currently has an associate (AA) degree?

- How are teaching staff and providers with BA and AA degrees distributed?
    - Within each county, what percentage of licensed centers or homes has at least one BA-level teacher or provider? (That is, how concentrated are these BA-level staff within a certain subgroup of centers and homes)?
    - Within each county, what percentage of licensed centers or homes has at least one AA-level teacher or provider?
    - For those centers with any BA-level teachers, what percentage of staff has various levels of education and training?

- How does the educational profile of teachers and providers vary across counties and among different ethnic groups?

Findings

1. A greater percentage of center-based teaching staff than family child care providers have completed bachelor's degrees or higher, although a substantial minority of both groups in several counties have obtained a BA or higher, as shown in Table 2. Directors and teacher-directors are more likely than teachers and assistant teachers to have completed a bachelor's degree or higher.

While a bachelor's degree is not required for any personnel working in licensed early care and education programs in California, a considerable percentage of the workforce in several counties has completed at least a four-year or higher degree. Given

[4] Data on center-based staff in San Benito County have now been released, but have not been incorporated into this report.

[5] Recent data on the center-based early care and education workforce of Los Angeles County (Burton, Duff & Laverty, 2003) also provides information about educational background. These data are not strictly comparable to those discussed in this report, as a different methodology was employed to gather information.

the regulations' greater emphasis on educational attainment for child care center staff, it is not surprising that center-based workers have higher levels of education as a group than family child care providers. Great diversity, however, exists even among center staff. Assistant teachers closely resemble family child care providers with respect to educational levels; less than one-quarter of either group had obtained a four-year degree or higher. In contrast, the majority of directors, with the exception of those in Kern County, have obtained at least a bachelor's degree. As would be expected, a greater proportion of teacher-directors and directors than teachers had completed BA degrees or higher.

Table 2. ***Percentage of Family Child Care Providers and Center-Based Staff With a BA Degree or Higher, By Position and County***

	Family Child Care	**Assistant Teachers**	**Teachers**	**Teacher-Directors**	**Directors**
Alameda	14%	15%	33%	49%	72%
Kern	3%	4%	8%	18%	28%
Monterey	3%	3%	22%	33%	67%
San Francisco	21%	14%	49%	59%	87%
San Mateo	23%	10%	38%	42%	90%
Santa Clara	17%	10%	32%	47%	60%
Santa Cruz	10%	14%	26%	51%	82%

2. Counties vary greatly with regard to the educational attainment of early care and education practitioners, and this variation tends to reflect the overall profile of educational attainment among adults in the different counties.

Based on data from the 2000 Census, considerable variation exists among counties with respect to the level of education obtained by adults 18 years or older. This variation is reflected in the early care and education workforce; counties with a more highly educated adult population generally have a more highly educated cohort of adults working with young children. Among teachers in center-based programs, the percentage with a BA degree or higher approximates that of the adult population in their respective counties, as shown in Table 3. Directors and teacher-directors were more likely than the overall adult population in their counties to have obtained a BA degree or higher. In all counties, a smaller percentage of assistant teachers had obtained a college degree than had the general adult population.

Unfortunately, we do not have enough data to know to what extent this variation among counties in the educational attainment of the early care and education workforce is also related to varying access to higher education programs in ECE in the different counties. (See Table 9 for a list of available BA-level ECE programs in the eight counties.)

Table 3. ***Educational Attainment of Population and of Center-Based Teachers, By Program Type and County***

	Percentage of Teachers with BA or Higher Degree				**Percentage with AA/AS degree**	
	Adult Population	All Teachers, All Centers	Teachers in Centers Governed by Title 5 Regulations	Teachers in Centers Governed by Title 22 Regulations	Adult Population	All Teachers
Alameda	32%	33%	39%	32%	28%	20%
Kern	12%	8%	12%	6%	30%	23%
Monterey	20%	22%	21%	23%	56%	27%
San Francisco	43%	49%	48%	50%	22%	21%
San Mateo	36%	38%	31%	40%	30%	19%
Santa Clara	37%	32%	33%	32%	26%	17%
Santa Cruz	30%	26%	16%	28%	30%	22%

Variation in the level of educational attainment among licensed family child care providers across counties also reflected differences among the educational attainment of the adult population in each locale. In contrast to center-based staff, however, family child care providers were less likely to hold a bachelor's degree than other adults in their counties. But with the exception of Monterey and San Benito Counties, family child care providers were more likely than the general adult population to have completed some college-level education or an associate (AA/AS) degree. (See Table 4.)

Table 4. ***Educational Attainment of Population and of Family Child Care Providers, By County***

	Percentage with BA or higher		**Percentage with some college or AA/AS**		**Percentage with BA, AA/AS, or some college**	
	Adult Population	FCC Providers	Adult Population	FCC Providers	Adult Population	FCC Providers
Alameda	32%	14%	28%	61%	60%	75%
Kern	12%	3%	30%	68%	42%	71%
Monterey	20%	3%	56%	28%	76%	31%
San Benito	28%	4%	52%	30%	80%	34%
San Francisco	43%	21%	22%	53%	65%	74%
San Mateo	36%	23%	30%	51%	66%	74%
Santa Clara	37%	17%	26%	52%	63%	69%
Santa Cruz	30%	10%	30%	56%	60%	66%

Within a given county, variation also exists among members of the workforce from different ethnic backgrounds with respect to educational attainment. Because we interviewed family child care providers individually, we were able to examine these differences. Although we have data about the ethnicity of center staff, it cannot be disaggregated to provide specific detail about levels of education among staff from different backgrounds. Table 5 provides information about ethnic diversity within our sample of licensed providers by county. In some instances, the number of providers from a particular ethnic category is too small for meaningful analysis, and as a result, we do not report those data in subsequent tables.

Table 5. ***Family Child Care Provider Sample Description, By Size and Ethnicity***

	Number of providers in county	Number of providers contacted[6]	Number of providers interviewed	Percentage of Caucasians among interviewed providers	Percentage of African Americans among interviewed providers	Percentage of Asian/Pacific Islanders among interviewed providers	Percentage of Latinos among interviewed providers
Alameda	1,912	600	370	39%	29%	8%	12%
Kern	331	600	92	51%	15%	6%	28%
Monterey	510	497	309	36%	3%	2%	56%
San Benito	86	85	46	39%	0%	0.2%	57%
San Francisco	529	517	261	25%	31%	11%	24%
San Mateo	680	657	337	47%	11%	11%	22%
Santa Clara	1,315	600	358	43%	5%	11%	33%
Santa Cruz	331	319	224	50%	0.4%	0.4%	43%

As shown in Table 6, a smaller proportion of Latino providers, across all counties, has completed an AA or higher college degree than the average provider. This is also the case for African American providers in some counties.

Table 6. ***Percentage of Family Child Care Providers with an AA Degree or Higher, By Ethnicity and County***

	All providers	Caucasian providers	African American providers	Asian/Pacific Islander providers	Latino providers
Alameda	26%	22%	25%	58%	9%
Kern	13%	16%	14%	--	4%
Monterey	7%	11%	--	--	3%
San Benito	11%	17%	--	--	8%
San Francisco	29%	55%	17%	30%	8%
San Mateo	31%	30%	19%	66%	16%
Santa Clara	27%	26%	--	51%	17%
Santa Cruz	19%	26%	--	--	6%

[6] In counties with a larger number of family child care providers (Alameda, Kern, Santa Clara), we randomly selected a subset of the population for interviews. In counties with a smaller number (Monterey, San Benito, San Francisco, San Mateo and Santa Cruz), we attempted to contact all licensed providers. For details about the response rates in each county, see the full California Child Care Workforce Study reports at www.ccw.org.

As shown in Table 7, however, the percentage of providers, by ethnicity, who have completed early childhood education units reveals smaller differences, if any, between Latinos and other ethnic groups. This suggests that there are particular challenges related to completing general education or other degree requirements for the Latino population due to language and other access issues (Whitebook, Bellm, Cruz, Yong Jo & Almaraz, in press). (Note: We conducted interviews in English and Spanish only; if we had conducted interviews in Asian languages, this could have affected our findings about levels of education among Asian American providers.)

Table 7. ***Percentage of Family Child Care Providers Who Have Completed ECE Units, By Ethnicity and County***

	Caucasian		**African American**		**Asian/ Pacific Islander**		**Latino**	
	1-11 units	12+ units	1-11 units	12+ units	1-11 units	12+ units	1-11 units	12+ units
Alameda	11%	22%	18%	37%	10%	29%	13%	24%
Kern	19%	24%	12%	37%	--	--	12%	17%
Monterey	20%	23%	--	--	--	--	13%	19%
San Benito	11%	33%	--	--	--	--	23%	12%
San Francisco	19%	32%	19%	38%	13%	43%	19%	28%
San Mateo	13%	29%	8%	35%	8%	24%	25%	19%
Santa Clara	14%	26%	--	--	5%	22%	21%	19%
Santa Cruz	16%	37%	--	--	--	--	6%	32%

3. The distribution of BA-level teachers across centers in the seven counties in this study varies somewhat by the percentage of BA-level teachers in the county, and somewhat by program type.

As shown in Table 8, Kern County had both a lower percentage of teachers with BA degrees or higher, and fewer centers with BA-level teachers, than did other counties. San Francisco County had the highest percentage of BA-level teachers, and the highest percentage of centers employing them. At the middle to upper end of the spectrum, however, the percentage of BA-level teachers in a county was less related to the proportion of centers that employed BA-level teachers. Twenty-six percent of teachers in Santa Cruz County and 32 percent of teachers in Alameda County held a BA degree or higher, yet 58 percent of centers in both counties employed BA-level teachers.

In order to understand the distribution of BA-level teachers (or other levels of education for teachers and other job titles) in child care centers, given that centers vary in size, we examined two ratios to gain a clearer picture of the county supply of teachers

with BA degrees. First, we divided the number of BA-level teachers in each county by the number of centers in each county. As shown in Table 5, Column 4, the ratio mirrors the percentage of teachers in the county with a BA degree or higher. Alameda County, for example, had more than one (1.61) teacher per center with a bachelor's degree or higher, while Kern County had one teacher with a bachelor's degree or higher for every three centers (0.3). This ratio, like the percentage of teachers in the county with a bachelor's degree or higher, provides some idea of the saturation of four-year degreed teachers in a county, but fails to account for variations in center size and the number of children served. (A county could serve more children in fewer centers, for example, and this would not be captured by the ratio of BA-level teachers to number of centers.)

Table 8. ***Distribution of BA- and AA-Level Teachers By County, and Number of BA-Level Teachers Per 100 Children, By County and By Center Type***

	Percentage of All Centers Employing Teachers with a BA or Higher	**Percentage of All Centers Employing AA-Level Teachers**	**Number of Teachers with a BA or Higher Per Center in County**	**Number of Teachers with a BA or Higher per 100 Children Aged 2-5 Enrolled in Centers**		
			All Centers	**All**	**Contracted**	**Non-Contracted**
Alameda	**58%**	**51%**	**1.61**	**3.2**	**3.2**	**3.2**
Kern	**22%**	**52%**	**.3**	**.6**	**.4**	**.7**
Monterey	**48%**	**52%**	**.44**	**2.2**	**1.5**	**.6**
San Francisco	**63%**	**47%**	**2.37**	**7.9**	**4.8**	**10.6**
San Mateo	**60%**	**41%**	**1.38**	**4.6**	**2.8**	**5.4**
Santa Clara	**63%**	**42%**	**1.68**	**5.4**	**2.9**	**5.9**
Santa Cruz	**58%**	**49%**	**.96**	**5.9**	**9.0**	**4.7**

To account for center size, we also examined the ratio of BA-level teachers to all children aged two to five enrolled in centers, in order to capture the concentration of BA-level teachers within a county. We divided the number of teachers with a four-year degree or higher in our sample by the number of children aged two to five served in the programs where they worked. These ratios also mirrored the percentage of teachers with bachelor's degrees or higher in a given county, with counties at the high and low end of the spectrum having higher and lower ratios respectively. In San Francisco County, for example, there are approximately eight teachers (.079) with a bachelor's degree or higher for every 100 children aged two to five, in Alameda County there are three such teachers (.032), and in Kern County there is less than one such teacher (.006). In addition to

county differences, these ratios revealed some differences among program types in several counties. Programs operating under Title 5 regulations in San Francisco County, for example, had approximately half as many teachers with four-year degrees or higher per 100 children than programs following Title 22 regulations. At first glance, this appears counter-intuitive, as Title 5 requirements (see Table 1) are more rigorous than Title 22, but many programs that are subject to Title 22 regulations not only exceed those requirements but also exceed Title 5 standards. This possibly reflects such programs' assessment that the existing requirements are too low, and/or their ability to charge higher fees that enable them to attract and pay more highly educated teachers.

Discussion

As we have known for some time from previous research (Ruopp, Travers, Glantz & Coelen, 1979; Whitebook, Howes & Phillips, 1990), many teachers and providers working in the early education field have already completed four-year and higher degrees, and most have completed some college-level work. On the one hand, the levels of education in the field exceed the qualifications set by state regulations and belie the low wages typical of the industry (Whitebook, Sakai, Gerber & Howes, 2001). On the other hand, the educational attainment of those who work with children prior to elementary school falls short of that for teachers working with children who are often only a year or two older. Woefully inadequate compensation constrains efforts to build a more skilled workforce, and not surprisingly, there appears to be a decline in recent years in the number of early care and education practitioners who have completed a bachelor's degree (Burton, Laverty & Duff, 2002). Many of the most educated practitioners in the field are nearing retirement age, which suggests that this decline may not only persist but increase. Higher educational and certification standards for the proposed universal preschool effort could help reverse this trend, but only if they are accompanied by better compensation and access to higher education in the form of scholarships and other supports.

California, of course, is not alone in trying to figure out how to raise standards appropriately for preschool teachers. Twenty states, plus the District of Columbia, already require a BA for teachers in state-financed prekindergarten programs, and 15 of these also require courses or certification in early childhood education along with the BA (Barnett, 2003). Fortunately, several states, including Georgia, New Jersey and Oklahoma, are providing valuable lessons in how the raising of standards can be achieved in a relatively short time. A recent report from New Jersey (Coffman & Lopez, 2003) describes the complex but successful process through which that state has been able, within a four-year deadline, to meet new requirements for preschool teachers to earn a four-year degree and certification. The report notes that the mandate was only possible because it was "supported with policies and sufficient funding for: realistic but ambitious timelines; quality teacher education; a strengthened teacher education infrastructure; teacher scholarships; [and] adequate teacher compensation and parity."

The findings reported here begin to identify the level of effort that will be required to raise the educational levels of the current workforce to meet new universal

preschool workforce requirements. An important step will be to clarify the number of teachers/providers per group of children with varying educational levels who will be needed for this emerging effort. Will the goal be one BA-level teacher for every 20 or 24 children? Will assistant teachers also be required to increase their educational levels to the current Title 5 standards for teachers (24 units of early childhood education plus 16 general education units), or even higher to an AA degree? Will those with bachelor's degrees eventually be required to obtain a teaching credential? To what extent will new requirements for universal preschool teachers affect other teachers working within the same center with children of other ages? Will there be continuing education requirements for preschool teachers? The answers to these questions will affect the current and emerging workforce, as well as the institutions of higher education that serve them.

The variation by county in current levels of education, as discussed in this report, suggests that the magnitude of the effort to raise teacher qualifications will vary considerably throughout the state. In center-based care, San Francisco currently exceeds a ratio of one BA-level teacher to every 20 preschool-aged children, while Kern has less than one BA-level teacher per 100 children. These findings point to the local nature of workforce development planning, and the varying levels of assistance and investment that counties will need to meet statewide goals. They also suggest the importance of local as well as statewide data to the planning process.

These findings also underscore the challenges that will be faced by different sectors of the workforce in meeting higher requirements. Center-based programs vary by type with respect to the educational background of their staff. Some centers have already adopted staffing patterns similar to those under discussion for universal preschool, while others will require greater assistance in meeting standards to become a universal preschool site. Details about how family child care will be integrated into universal preschool are yet to be decided, but consideration of providers' current levels of education and training will be essential, with attention given to the barriers that prevent educational advancement as well as the appropriate supports to encourage it.

Likewise, the efforts to build not only a skilled, but a diverse workforce, compatible with the diversity of young children in the state, will require special attention. Based on the initial findings reported here for family child care providers, and anecdotal reports about center-based workers, it will be necessary to provide a menu of opportunities, supports and resources to ensure the participation of ethnic and language minority teachers, providers and administrators in California's universal preschool plan.

Counties vary not only in the percentages of teachers and providers who have various levels of education, but also in the number, level and accessibility of four-year institutions with early childhood education programs, as indicated in Table 9. In terms of increased demands on the state's higher education system, most but not all of the teachers and providers described here would need additional education in order to meet higher standards or a required credential whenever these are phased in. Some current professional development efforts are already helping in this regard, including county-

based CARES programs, which offer stipends to teachers and providers for furthering their training and education. But planning and resources would also be necessary to create upper-division and graduate-level programs geared to students who are working full-time, as well as financial support to make attendance possible. If a credential becomes required, even most teachers and providers with a BA degree would need to complete additional training in early childhood education. [7]

Table 9. ***Colleges and Universities in the Eight Counties With Programs in Early Childhood Education***

	Community Colleges	**California State University**	**University of California**	**Private Institutions**
Alameda	Chabot, Las Positas, Merritt, Ohlone	CSU Hayward	UC Berkeley	Mills College, Pacific Oaks College (Oakland campus), Patten College
Kern	Bakersfield, Cerro Coso, Taft	CSU Bakersfield		
Monterey	Hartnell, Monterey Peninsula	CSU Monterey Bay		
San Benito				
San Francisco	City College of San Francisco	San Francisco State University		
San Mateo	Cañada, Skyline			College of Notre Dame
Santa Clara	DeAnza, Evergreen Valley, Foothill, Gavilan, Mission, San Jose City College, West Valley	San Jose State University		National Hispanic University
Santa Cruz	Cabrillo			Bethany College

While some counties have a larger percentage of BA-level than AA-level teachers and providers, there are also large numbers who have completed 24 or more college-level units. For these teachers and providers, we need to develop articulation programs and other strategies that would help them complete the general education requirements for an associate degree. Most training in early childhood education and child development is currently offered in community colleges or at the non-college-based community level; there is a serious shortage of opportunities at four-year colleges and universities. [8] Clearly, we cannot raise standards for early education teachers and providers without investing substantially in the state's higher education infrastructure. One promising step forward is

[7] The data from the California Child Care Workforce Study do not tell us the amount of specialized training in early childhood education that center-based teachers completed as part of their AA or BA degrees; we have this information for family child care providers only.

[8] See Whitebook, Bellm, Cruz, Yong Jo & Almaraz (2003).

that some universities are now offering courses at community college sites – a strategy that could be important for rural (as well as many urban and suburban) communities. A process to establish communication and collaboration between four-year and two-year institutions, backed with financial resources for planning and expansion, must be a central part of California's policy agenda for creating a universal preschool system.

While standards and compensation are often discussed as separate topics, they are really interdependent, and publicly supported preschool offers an opportunity to confront both challenges hand in hand, so that professional development is directly tied to a coherent wage and career ladder, and an equitable compensation package is incorporated into a state's "price tag" of what a universal preschool system will truly cost. This is largely a question of resources and public will. We can set preschool teacher standards at the BA level, but unless we put together the resources to make educational opportunities available to current and prospective teachers, clarify what are the optimal characteristics of preschool teacher training, and compensate teachers sufficiently to retain them in the field, the question of higher standards will remain an academic one, and preschool could continue to be a stepchild of our educational system.

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