

Child Care Employment

Training the Next Generation of Teachers:

A Preliminary Survey of California's Higher Education Programs In Early Childhood Education and Child Development

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Introduction

With increased discussion of universal preschool in California, and the possibility of increased educational standards for early childhood educators, it has become critically important to assess the capacity of the state's higher education system to meet rising demands for teacher preparation. Thus far, the discussion is moving toward raising the bar higher than California's current Title 5 standards,¹ possibly as high as a bachelor's degree with a credential for lead teachers, and an AA and Child Development Permit for assistant teachers. At least 20 states and the District of Columbia now require bachelor's degrees for teachers in state-financed prekindergarten programs (Barnett, 2003).

The California Master Plan for Education (Joint Committee, 2002; see box below) calls for the state to "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 a recent First 5 California document proposes that "preschool teacher education and compensation...increase to parity with Kindergarten/early elementary teachers" (First 5 California Children and Families Commission, 2003). Such a step would mean that preschool teachers would earn not only a BA but also a post-baccalaureate teaching credential. These recommendations are coming at a time when the state's community colleges are already experiencing increased demand through the advent of CARES (Compensation and Retention Encourage Stability) and other professional development initiatives, and when all institutions of higher education are severely affected by the California budget crisis.

Nationally, fewer than one-half of lead teachers in classrooms for three- and four-year old children have a bachelor's degree (Morgan et al., 1993; Saluja, Early & Clifford, 2002). In California, about 30 percent of teachers in publicly operated State Preschool programs, and eight percent in privately operated programs, have a bachelor's degree (Bellm, Burton, Whitebook, Broatch & Young, 2002). Educational attainment also varies greatly by county: the recent California Child Care Workforce Study (Whitebook et al., 2002a&b) found that eight percent of teachers in center-based early care and education programs in Kern County hold a BA or BS, compared with 43 percent in San Francisco County.²

At one time, California teachers could earn a credential covering preschool through Grade 3, but this was phased out in the 1970s. A variety of other upper-division and graduate programs in the early childhood education field, such as a master's degree program in Early Childhood Education at the University of California at Berkeley, were also discontinued during that era. Over the past several decades, the focus in training the state's early care and education workforce has shifted to the community colleges.

¹ These standards are detailed in Appendix A, Table 3.

² For a more detailed analysis of this data on teacher preparation, see "Raising Teacher Education and Training Standards For Universal Preschool in California: Assessing the Size of the Task" (Whitebook et al., 2003), http://www.iir.berkeley.edu/cscce/pdf/teacher_training.pdf.

If California does raise standards for early childhood educators, community colleges will be increasingly called upon not only as an entry-level pathway for many teachers and providers, but also to prepare many to receive an associate (AA/AS) degree, if these become required for assistant teachers or other practitioners. In addition, if a BA requirement is put into effect, many students are likely to come to community colleges to begin this process by earning an associate degree.

Four-year colleges and universities will also be called upon to prepare more students for BA and higher degrees in early childhood education or child development. 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 reports 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.”

In order to gain a better sense of the current capacity of California’s colleges and universities, and the potential size of the task ahead, this paper summarizes data available from the web site of the Community College Chancellor’s Office and from a spring 2003 survey of early childhood education training in the state (Brown et al., 2001) – supplemented by telephone interviews and e-mail surveys by interviewing community college instructors, a variety of personnel at four-year colleges and universities,³ and other early childhood practitioners.

This paper is an initial scan of the state’s existing college and university offerings, including associate, bachelor’s, master’s and PhD programs, in early childhood education (ECE) and child development (CD), any of which – along with newly created programs – could be called upon to expand in response to a universal preschool initiative. We are grateful to the David and Lucile Packard Foundation, and the Institute for Labor and Employment, University of California, for their support of this research.

To collect further data on higher education programs in early childhood education and child development, the Center for the Study of Child Care Employment is collaborating in a nationwide survey in 2004 with the National Pre-kindergarten Center (NPC) at the University of North Carolina at Chapel Hill. We will be using a California-specific version of the interview, which will also include questions on course work content and practicum requirements; faculty characteristics, including educational background, race/ethnicity, and tenure status; characteristics of enrolled students,

³ While this paper uses the term “four-year institutions” for the sake of convenience, it should be noted that not all bachelor’s degrees are completed in four years. We note, too, that baccalaureate training in child development or early childhood education follows a number of avenues. Some universities offer bachelor’s degrees in Child Development, while others offer a CD or ECE concentration within Human Development or Liberal Studies departments. It is therefore possible that our survey missed a number of programs embedded within departments outside of a school’s early childhood education, general education or liberal studies departments. Since this is a work in progress, readers are welcome to let us know of any programs we may have missed, in order to inform our further work on this subject.

including race/ethnicity; and challenges that programs face as they prepare students to work with young children. New data from the survey will be available by the end of 2004.

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)

Part 1: Community Colleges

Methods

Our starting point was to identify the community colleges currently providing training in early childhood education (ECE) or child development (CD). Building on a December 2001 “Inventory of Early Childhood Education Training in California” by Policy Analysis for California Education (PACE) at the University of California at Berkeley (Brown et al., 2001), we then sought to find out what kinds of data are currently kept by community colleges on the number and characteristics of students served, and the number and types of degrees and certificates given. The California Community College Chancellor’s Office maintains a database (<http://www.cccco.edu/reports/reports.htm>) on student demographics (age, ethnicity, gender, enrollment status, including unit load attempted, and day or evening classes) and awards granted (such as AS or AA degrees or certificates). These data are collected annually from individual colleges, and in many cases can be disaggregated by department or course of study (see Appendix C, Tables 9 to 13).⁴ While the data have some limitations, as discussed below, they are far more extensive than information maintained by colleges and universities that offer courses of study in child development or early childhood education for upper-division or graduate students.

We then supplemented these data with 17 interviews with a variety of community college administrators and faculty, and with one focus group of teachers and directors.

Current Capacity

California community college ECE or CD programs provide the majority of formal, credit-bearing training to teachers and providers in the early care and education field. According to the 2001 inventory by PACE, 100 California community colleges offer ECE or CD certificates and degrees (Brown et al., 2001). Information was available for only 98 of these, however, on the Chancellor’s Office database. According to our records, there are a total of 99 community colleges that grant ECE/CD awards statewide; for a complete list, see Appendix B.⁵

⁴ In most cases, data are available for child development students exclusively. In some colleges, however, child development students are categorized along with other “lifespan” courses of study, including family studies and gerontology. Representatives of the Chancellor’s Office were able to disaggregate these data in most instances for the purposes of this study.

Data given in Appendix C reflect what is currently available in the Chancellor’s Office database. We have distributed these data to representatives of the colleges, and some have found errors that we have corrected. The authors welcome further corrections, which can be used to revise the paper as posted on the Center for the Study of the Child Care Workforce website, www.iir.berkeley.edu/csce.

⁵ The excluded colleges were Evergreen Community College and Mission College. The awards granted to Evergreen Community College students may be accounted for in the award numbers for San Jose City College; Evergreen offers only one child development course. Mission College information may be accounted for in the numbers for West Valley College.

The following data, based on information obtained from the Chancellor's Office, represent the number of students enrolled in two or more early childhood education or child development courses during fiscal year 2002-03. We were also able to compare these with data from fiscal year 2001-02.⁶ (See Appendix C for information about individual colleges and counties, and for 1998-2003 data.)

Courses

- ◆ About 139,000 individuals took early childhood education or child development courses at California community colleges in fiscal year 2002-03. Of these, approximately 40 percent of students were enrolled in two or more such courses, and about 60 percent took only one course. No disaggregated data are available, however, on how many of these students are majoring in child development or how many are students from other majors taking child development courses to fulfill general education requirements.

Roughly two-thirds of students taking two or more ECE/CD courses at community colleges, as shown in Figure 1, were taking a mixture of day and evening courses, while about 31 percent took these courses in the evening only.⁷ It is unclear from the data whether students preferred this arrangement or were responding to course availability in daytime or evening formats.

The unit load of students taking two or more ECE/CD courses in fiscal year 2002-03 was relatively diverse, as shown in Figure 2. Twenty-seven percent of students enrolled in two or more community college ECE/CD courses that year were taking six units or less. The next largest grouping was about 19 percent of students taking 24 units or more. It is difficult to determine the average course load per semester for students, as the data represent student behavior over the course of the academic year.

⁶ Between 2001-02 and 2002-03, the number of students statewide enrolled in two or more child development courses rose from 54,611 to 56,496. Beyond the increase in total enrollment, there were no significant changes in the distribution of students' ethnicities, ages, or unit loads statewide.

⁷ A greater percentage of students taking only one CD course took their course only in the evening (34 percent, n=28,545).

Figure 1

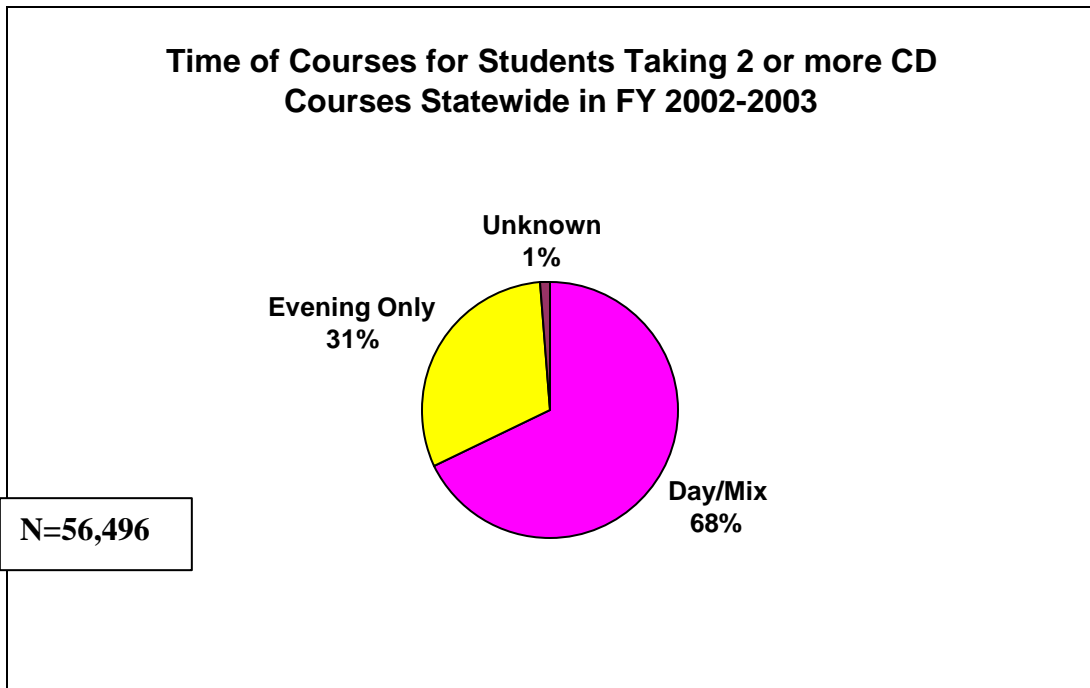
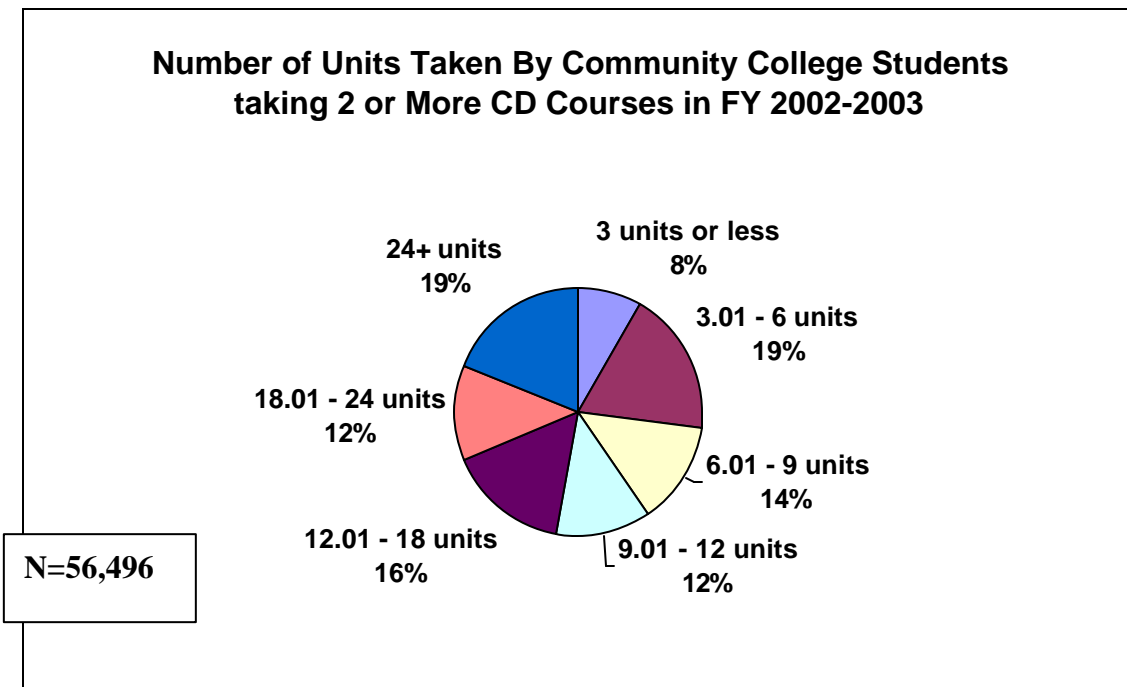


Figure 2



Awards

An “award” can refer to units, certificate(s), or degrees that an individual earns from a higher education program.⁸ All of these, however, are different from teacher credentials or the Child Development Permit, which are issued by the Commission on Teacher Credentialing.⁹ Unfortunately, in California, there is no clear correspondence or articulation between community college certificate or degree requirements and the requirements for receiving a Permit.

California does not currently have an overall teacher credential for early childhood education, but it has a Specialist Instruction Credential in Early Childhood Education for those who satisfy the following requirements: 1) possess a valid California Multiple Subject, Standard Elementary, or General Elementary Teaching Credential; 2) complete a Commission-accredited specialist program, including student teaching, and 3) obtain the recommendation of a California college or university with an accredited program in the specialist area. The state phased out its Preschool to Grade 3 credential in the 1970s.

There are a total of seven award categories, including two formal degrees, four certificates, and one “other” classification, but none of the community college programs granted all seven of these.

1. Associate of Arts Degree (AA)
2. Associate of Science Degree (AS)
3. Other Credit Award, under 6 units
4. Certificate, 18 to fewer than 30 units
5. Certificate, 30 to fewer than 60 units
6. Certificate, 6 to fewer than 18 units
7. Certificate, 60 or more units

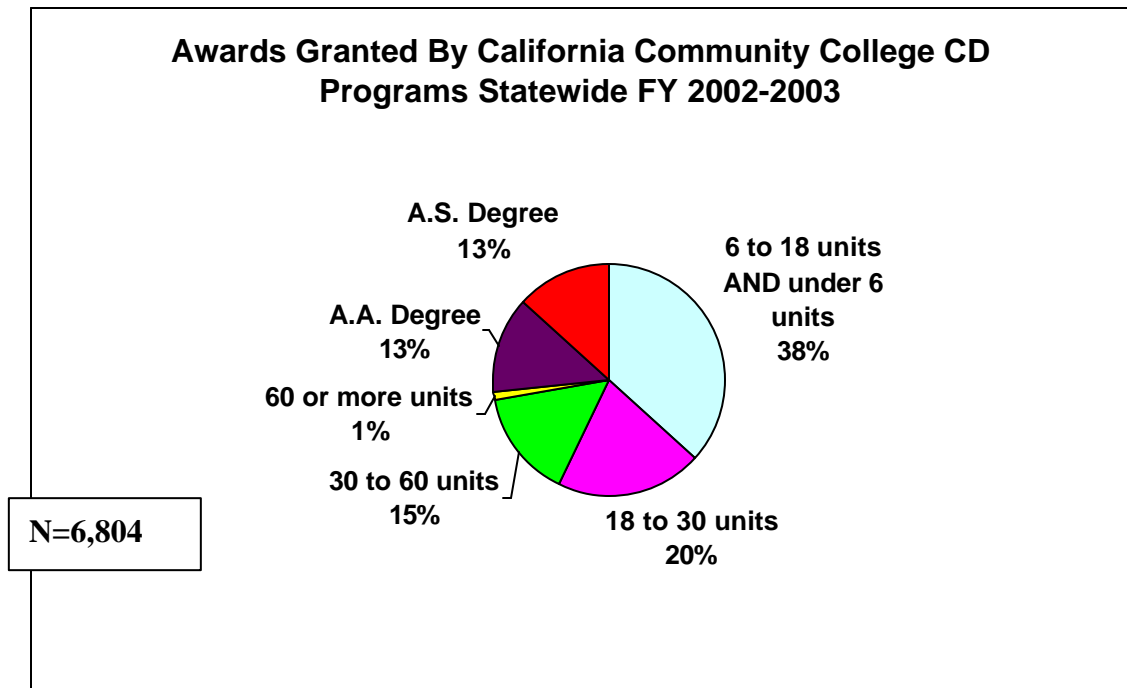
In 2002-03, roughly 6,800 awards were granted by community colleges in the area of child development or early childhood education, but formal degrees (AA or AS) constituted only about one-quarter of these awards, as shown in Figure 3. It should be noted that many community college students do not complete an AA or AS degree because neither the Child Development Permit process nor state licensing regulations require one; in addition, completing the General Education requirements for a degree is a barrier for many students. An important function of the community colleges is to facilitate the receipt of a Child Development Permit, but colleges themselves do not issue Permits.

⁸ Data obtained from Community College Chancellor’s database; calculations performed by authors.

⁹ The number of Child Development Permits submitted annually to the Commission on Teacher Credentialing by the Child Development Training Consortium has gone up dramatically since the mid-1990s – from 1,189 in 1996-97 to 7,085 in 2002-03 – suggesting that the community colleges’ role in offering the course work leading to the Permit has increased at a similar rate (Butterfield, 2003).

The categories “Certificate, 6 to fewer than 18 units” and “Other Credit Award, under 6 units” constituted about 40 percent of the total awards granted by community colleges in 2002-03. The category of “Certificate, 18 to fewer than 30 units” made up roughly 20 percent of all awards. These numbers most likely under-represent the number of students specializing in early childhood education who earned associate degrees, as many students may complete the course requirements for the Child Development Permit issued by the state but major in Liberal Studies.

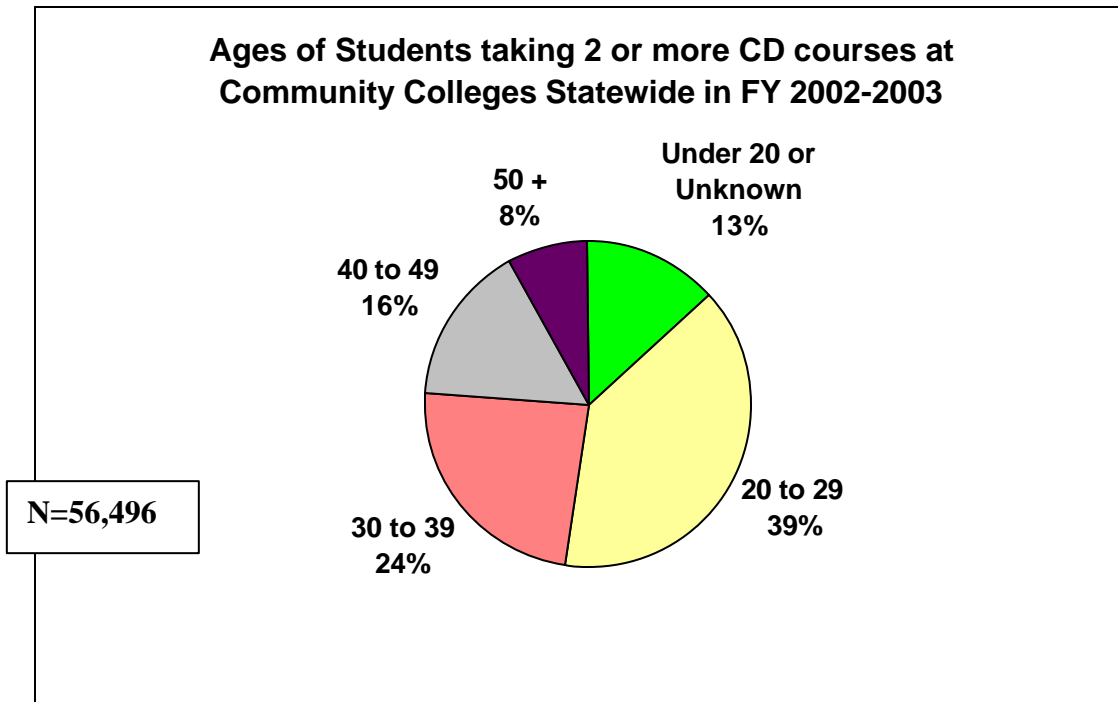
Figure 3



Student Population

Individuals aged 20 to 29 made up the largest group (about 40 percent) of students taking two or more ECE/CD courses over the course of the 2002-03 academic year in California community colleges, as shown in Figure 4. Students younger than 20, or whose age was unknown, made up about 13 percent of this population. Students aged 50 or older made up the smallest group (less than 10 percent) taking two or more ECE/CD courses during that year.

Figure 4



Of students taking two or more community college ECE/CD courses during the 2002-03 academic year, 32 percent were White, Non-Hispanic, 38 percent were Hispanic, 12 percent were Asian American, 11 percent were African American, and seven percent were of Other or Unknown ethnicity (see Figure 5). According to the Chancellor's Office web site, this ethnic composition is roughly comparable to the general population of students in California community colleges, in which 41 percent were White, Non-Hispanic and 27 percent were Hispanic in fall 2002.

About 93 percent of students taking two or more community college ECE/CD courses in 2002-03 were female, while 6 percent were male, and one percent were classified as "unknown."

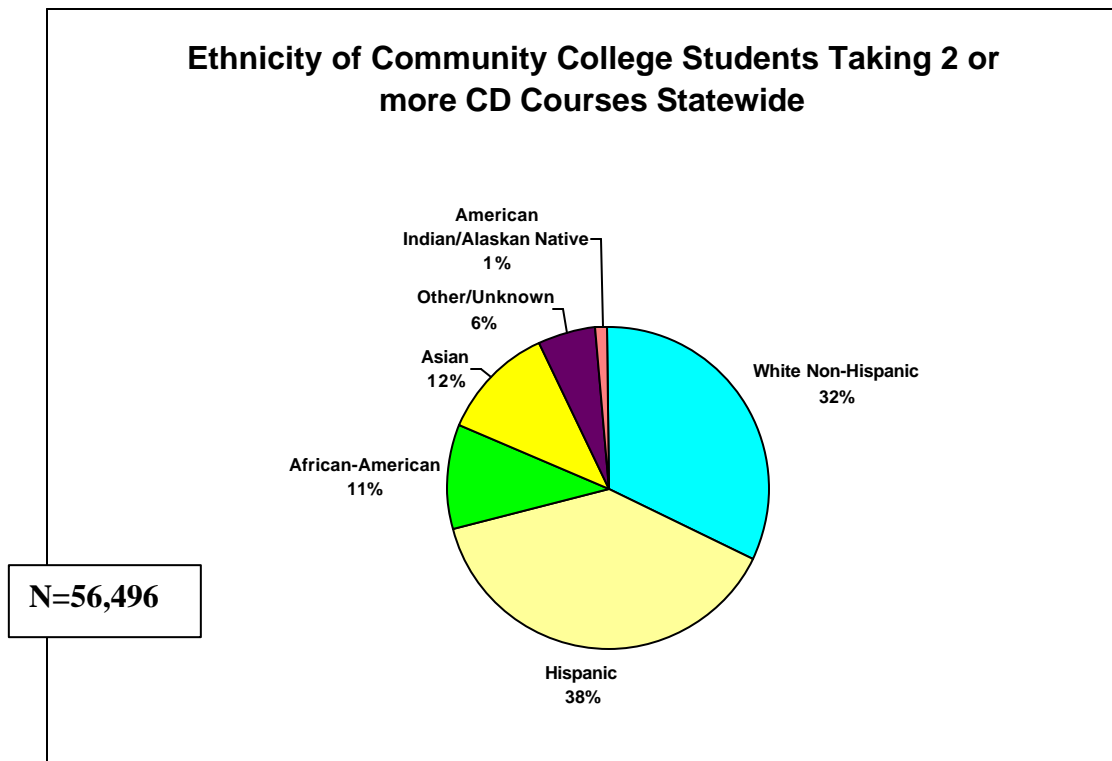
Slightly more than one-half (53 percent) of students taking two or more ECE/CD courses in California community colleges in 2002-03 were continuing students; i.e., enrolled in both the previous and current sessions. First-time students (17 percent) and returning students (i.e., enrolled after an absence of one or more sessions; 17 percent) each comprised about one-fifth of all students taking two or more ECE/CD courses. Nine percent of students were transfer students from other colleges.

The Chancellor's Office web site provides a broad picture of the current student population in community college ECE/CD programs. There is no ongoing central collection of data, however, on whether students are taking pre-service courses, or studying while already working in the early education field, and what kind of work they

pursue after completing their course of study. Individual colleges vary in the extent to which they keep longitudinal information on their students, since this is not required by the state (Wagner, 2003).

Further information about the *overall* student population of California’s community colleges is available in a recent report from California Tomorrow (Woodlief, Thomas & Orozco, 2003). This report indicates, for example, that only one in three community college students falls within the “traditional” college age group of 18-21, and that one in four students is an immigrant.

Figure 5



Current Capacity: Qualitative Data from Interviews

No quantitative data exist that detail the relationship of current capacity to existing demand for services. To explore these issues, we consulted a number of individuals working either within or in partnership with the community college ECE/CD training delivery system. We obtained qualitative assessments of current capacity from interviews with the directors, professors and professional advisory staff of community college ECE/CD programs in selected counties. We also conducted interviews with individuals who have worked in collaboration with community college ECE/CD programs, and convened a focus group of people currently working in early care and

education centers.¹⁰ We attempted to interview individuals from programs in larger and smaller counties throughout the state. Although we aimed for a representative interview sample, however, we cannot claim that these initial findings are necessarily applicable to all colleges or counties.

The Mission of Two-Year ECE/CD Programs

Nearly all interviewees stated that the primary mission of their ECE/CD programs was to prepare individuals with the education they need to go directly to work in the ECE field. Some noted that preparation for the workforce is their programs' primary mission, since most of their students are already working in ECE centers. Nonetheless, the secondary mission and ideal of many programs was to encourage students toward obtaining a formal degree or transferring to a four-year institution. Eight interviewees, in fact, espoused a two-fold mission of preparing students both to go into the workforce and to earn a formal (AA or BA) degree. One noted that while the original intent of the program was to prepare students to go directly into the ECE workforce, the entrance of a new college Vice President has ushered a change toward pushing students toward obtaining at least an AA degree. Despite general support for the idea of encouraging students to attain an AA, it was frequently noted that some students (at least initially) are only interested in acquiring enough units to be eligible to work at a center. The implementation of higher standards, including degree requirements for universal preschool, would be likely to influence student goals toward the AA or AS degree or transfer to a four-year institution.

Current Level of Demand for Two-Year ECE/CD Programs

Although none of the interviewees had quantitative data on this subject, all perceived demand for their programs' ECE/CD courses to be "moderate to high," based primarily on very large class sections and/or waiting lists for courses each semester. The most commonly cited reasons for high demand were: high staff turnover in the early care and education field, high demand for core courses needed to fulfill certificate or Child Development Permit requirements, recent Head Start mandates for more teachers to receive an AA degree, CARES initiatives, and the presence of students from other majors taking the courses to fulfill general education requirements.

Head Start issued a mandate in 1998 requiring that a minimum of one-half of all teachers in its center-based programs have experience teaching in preschool, as well as either an "associate, baccalaureate, or advanced degree in Early Childhood Education or a related field" by September 30, 2003.¹¹ This mandate has prompted a number of students to come back to two-year institutions to obtain associate degrees. The CARES initiative is a program that offers yearly stipends to ECE teachers and providers, based upon the level of their educational attainment, and has given many an incentive to pursue further ECE/CD training. It has also been possible for individuals to attain formal training in

¹⁰ A total of 17 interviews and one focus group were conducted, including an interview with a representative of the Child Development Training Consortium.

¹¹<http://faq.acf.hhs.gov>.

ECE as a result of stipends offered by the Child Development Training Consortium (CDTC), and this, too, has stimulated higher demand for early childhood education and child development classes at the colleges.¹²

Challenges and Emerging Issues

The California Budget Crisis

Nearly all interviewees cited the California budget crisis, and the prospect of severe budget cuts across all community college programs, as the primary hindrance to their ECE/CD programs' ability to meet existing demand. Since a large number of community college students currently work full-time, they are unlikely to qualify for financial aid unless they are among the lowest-income students. The Community College League of California has estimated that fee hikes and funding cuts could result in 180,500 to 206,500 students losing access to community college education (Turner, 2003). In counties such as Riverside and San Bernardino, the League estimates that a disproportionate number of students being "denied access" will be African American or Hispanic (Averill, 2003). To address access issues resulting from increased fees, the California community colleges received \$34.2 million in 2003 for financial aid, which may be used to target underserved groups.

Given the extent of recent and proposed future cuts, it is likely that the capacity we report here for fiscal year 2002-03 will not be met or exceeded until the budget crisis has diminished. Budget cuts are being made across the board for all community college programs, and therefore several ECE/CD programs have been forced to cut classes, increase the class size of existing courses when possible, and/or institute hiring freezes even in the context of high and increasing demand.

One program director noted that his CD program has been required to decrease its class offerings by 10 percent and has a hiring freeze in place. Another director/professor stated that her program has already been required to make six-percent program cuts (or four less courses), and may be required to cut by 10 percent in the future (another three to four classes). A program director in San Diego County contended that cutting courses within her college's CD program would mean that "some students would have to go to another college to take some courses if their demand for courses cannot be met in a timely manner."

Course section reductions could also result in the elimination of specialty courses that are not required for certificates. A director/professor from a smaller college noted that offering specialty courses is especially problematic for programs in small rural areas: "If you're a large college offering four sections of the same course, students still have the opportunity to take the course even if one section is cancelled. Yet, if we were to cancel a course here, students generally can't get that class until a full year later." Other child

¹² A recent increase in community college tuition, without a parallel increase in CDTC funding, however, means that these dollars will provide less service to qualifying students.

development programs, however, noted that they would be less severely affected by budget cuts because of grants from outside funders.

Insufficient Classroom Space and Faculty

Some interviewees noted that lack of classroom space and the need for more faculty members have made it a challenge to meet current demand. Lack of classroom space can result in courses with a larger number of students, thereby limiting the ability of faculty to give individual attention to students. Finding faculty to provide ECE training at community colleges is hampered by a general shortage, particularly in rural areas, of candidates with a master's degree in early childhood education or child development. Another serious issue is the limited availability of faculty to deliver courses in languages other than English. According to statistics on colleges contracted with the Child Development Training Consortium (94 out of the 99 colleges offering ECE/CD certificates and degrees) in 2001-02, 54 percent of full-time (n=349) and 78 percent of part-time (n=768) faculty were Caucasian. Only 13.5 percent (n=180) of faculty members were fluent in a language other than English (Butterfield, 2002).¹³

Class Schedules, Non-English Instruction, and Student Advising

Most interviewees noted that their programs made at least some attempt to provide both day and evening courses, since many who are enrolled are part-time students also working in ECE centers; only three cited convenience of scheduling as a problem for their students. Since we were unable to survey the entire population of two-year ECE/CD programs, however, we are unable to determine whether these programs as a whole are providing an adequate amount of scheduling options for students. Figure 1 indicates that 28 percent of students are taking classes only in the evenings, but it is uncertain whether this is due to limited demand for evening classes, a limited supply, or both.

Other challenges cited by some interviewees included availability of courses in languages other than English, and advising to students. According to the PACE survey (Brown et al., 2001), 17 percent (n=17) offered bilingual classes, while 12 percent (n=12) offered monolingual classes in any of the following languages: Spanish, Korean, Cantonese, Russian, Cambodian and Armenian (Brown et al., 2001). Additionally, some programs stated that more non-English courses would better facilitate the needs of the existing ECE workforce and students seeking training. Some programs have been able to provide support for bilingual students; two directors noted that students in their programs can earn the associate teacher certificate (first 12 units) entirely in Spanish.¹⁴

¹³ This figure includes only those staff who completed profiles (n=1,333).

¹⁴ Other colleges, however, are reluctant or unwilling to offer classes in languages other than English, often because of concerns about articulation and/or legality. Some four-year colleges, for example, will only accept courses taught in English. In addition, there are multiple interpretations of the restrictions placed on bilingual education by California Proposition 187, and some interpret the federal No Child Left Behind Act in such a way that ECE professionals may not be hired if they are unable to pass an English proficiency exam.

Availability of Specialized Courses and FTES Funding

Some college directors noted the difficulty of offering specialized courses that are not required for certificates or are not part of the core curriculum. This is partially due to the current Full Time Equivalent Students (FTES) system through which community colleges receive funding. As it currently stands, the funding that a college receives from this system is not related to the amount it costs to deliver instruction to students. Each college receives funds from the state based upon the number of FTES enrolled on its campus, each of which is equivalent to 525 “student contact hours.” The amount each college receives from FTES funding is dependent upon how much funding the campus received prior to the implementation of Proposition 13. Further, regardless of the cost of delivering instruction in a given program, each student is worth the same full-time equivalency. Lastly, the amount that a college receives from FTES is capped to a certain amount; how much a college receives in one year is dependent upon the FTES level of the prior year. Funding allotted to a college can range from \$3,200 to \$6,600 per FTES.

The FTES funding system has several potential implications for community college ECE/CD programs, and these issues can have great local variation. First, the overhead costs of reporting on a class to the state, as one community college program director noted, “are all the same whether a class meets once for four hours, or 17 weeks for five hours each week. Longer, larger classes are more economical than smaller, shorter classes.” Second, offering courses at multiple starting points during the year requires more overhead. Third, having a limited number of “starting points” means that not having enough students in a class results in the college receiving less funding; too few students in a class may result in the cost of instruction being higher than actual revenue received to deliver the course. Hence, this program director felt that “there is less willingness to take risks in scheduling classes” or to offer courses that are not predictably going to have a good turnout, and curriculum innovation is potentially limited.

Lack of Uniformity and Articulation

Community colleges are autonomous in terms of the curriculum they offer and what they require of students in order to earn a degree or certificate. Although an AA degree requires that a student complete 60 units regardless of which campus she graduates from, one college might require that 25 of these units be from ECE/CD courses and 35 from general education courses, while another might require 35 units to be ECE/CD courses, and the rest of the units to be taken in general education.¹⁵ The community colleges’ diversity of course requirements is in part fueled by the diversity of the ECE field itself, which makes the mandate to prepare students to work in this field relatively broad and unclear – unlike four-year institutions, which are clearly charged with preparing teachers to enter a credentialing program to work in grades K-12.

¹⁵ A further complication is that some community colleges (e.g., De Anza and Foothill) operate on the quarter (rather than semester) system.

Lack of uniformity in curricula and course offerings of two-year ECE/CD programs also affects the permit process. If courses and curricula were more uniform across colleges, and matched the Child Development Permit requirements, ECE/CD students could be guaranteed that their certificates or degrees would result in automatically receiving a permit. Furthermore, the move toward more consistency would potentially save the Commission time and money spent processing permit requests.

Articulation agreements, in which one college or program agrees to recognize the coursework of another college or program toward coursework requirements, are also generally lacking among two-year institutions in California. Due to the lack of uniformity and articulation agreements across community colleges, students can find it difficult to transfer coursework from one college to another, and are often required to take the same courses again (Brown et al., 2001; Early & Winton, 2001). This undoubtedly creates disincentives for students to pursue a higher level of education if they move from one college to the next.

Nearly all interviewees stated that much stronger formal articulation agreements would have to be forged between community college and upper-division ECE/CD programs in California if requirements are raised. Currently, most upper-division ECE/CD degree programs only recognize community college ECE/CD courses as general elective units for transferring students. All directors stated that in order for stronger articulation agreements to occur, four-year colleges would have to be more receptive and cooperative in accepting community college ECE/CD programs' course offerings. Some interviewees stated that four-year institutions do not consistently articulate a large number of community college courses, in part because they believe that accepting too many ECE/CD courses from community colleges may jeopardize their programs' survival. One national study, however, indicates that faculty at community colleges tend to be more aware of this problem (the implications of lack of articulation) than faculty housed in four-year ECE/CD programs (Early & Winton, 2001).

One director noted, "Unless four-year institutions form [stronger] articulation agreements with two-year programs, we [two-year CD programs] would just be making sure that the students are taking GE courses. This is because without articulation agreements, a CD course taken at the two-year level may count toward nothing for the four-year CD program [core course] other than a lower division elective." Another interviewee also stated that students that transfer from her college's two-year CD program to four-year CD programs tend to be required to retake courses that are of the same content and caliber that they took at the community college.

Issues of articulation between community colleges, and between community and four-year institutions, are not restricted to the ECE field or to California, of course, and some efforts to address these issues are underway (Wheelock College Institute for Leadership and Career Initiatives, 2003). In California, the IMPAC (Intersegmental Major Preparation Articulated Curriculum) Project, designed and run by college and university faculty members, examines different disciplines each year, and in 2004 is holding discussions on Early Childhood Development. "The IMPAC project," according

to information on its web site, www.cal-impac.org, “seeks to create: 1) a common understanding of the major preparation, including key components of the lower division curriculum; and 2) a system of state and regional intersegmental faculty dialogues, by discipline and among related disciplines, to address curriculum issues related to articulation and transfer. These efforts aim to ease student transfer, ensuring that students complete all required courses and avoid unnecessary course work prior to transfer, and avoid having to repeat courses taken at the community college in preparation for the major.”

Part 2: Four-Year Colleges and Universities

Methods

Our survey sought to determine which of the state's 30 public universities and 47 private four-year institutions that offer K-8 teacher training also offer coursework in early childhood education or child development. (See Table 1.) We took three approaches to building this sample:

- Telephone interviews with representatives of the 42 higher education institutions listed in a recent inventory by Policy Alternatives for California Education (PACE; Brown et al., 2001) as offering ECE/CD coursework in California;
- Telephone or e-mail surveys with 21 other accredited institutions listed on the Western Association of Schools and Colleges (WASC) website; and
- Interviews with representatives from 14 schools listed on the California Commission on Teacher Credentialing (CTC) website as providing K-8 teacher certification.

We made at least six attempts to survey each institution, and only two (Humboldt State University and CSU San Marcos) did not return repeated phone calls or e-mails.

A particular difficulty of this survey was that, unlike community colleges, California's four-year institutions operate under different auspices, including California State University campuses, University of California campuses, and private colleges and universities. As a result, there is no unifying or consistent process of data collection on students or programs in this sector of the higher education system. We therefore have little more than rough estimates on this sector, and the following results should be viewed as such. Since none of the institutions surveyed kept precise records about the numbers of students enrolled in ECE or CD courses, or the demographic characteristics of the ECE/CD student body and faculty, all figures listed below are approximations.

For each institution, we attempted to approximate the numbers of students enrolled and matriculated each year in early childhood education or child development, and to approximate student ethnic demographics, the percentage of graduates who continue into work directly related to ECE/CD, and the numbers and characteristics of faculty at the university with ECE or CD expertise. When survey respondents indicated that their university's program was in child development or human development, they were asked to estimate the number of students focusing on ECE and to use that number as the enrollment figure.

Most survey respondents were able to provide us only with rough estimates of numbers of students in their programs. Based on these responses, we estimate that approximately 7,000 students in California are enrolled in coursework leading to a bachelor's degree with an emphasis in ECE or CD. Based on our interviews, however, we estimate that only about 1,000 students graduate each year from public or private institutions in California with such degrees; we do not know how many of these continue

into the early education field as practitioners. Yet in terms of student career choices, it is important to distinguish here between degrees in early childhood education (ECE) and degrees in child or human development; the latter type does not necessarily mean that the student ever intended to prepare for a career in preschool education.

We first describe BA-level programs in the California State University and University of California systems and in private institutions, and next examine MA and PhD programs.

Table 1
Survey results of overall ECE/CD programming at California four-year institutions

	Number	% of total
Number of California four-year institutions (30 state, 47 private), according to PACE report, WASC, and CTC combined data	77	100%
Four-year institutions surveyed	75	100%
Offer BA w/ emphasis in ECE/CD	29*	38%
Offer BA w/emphasis in ECE/CD and special education certification	2	2.6%
Offer BA w/emphasis in ECE/CD and bilingual education certification	2	2.6%
Offer master's-level programs	14	18%
Offer PhD-level programs	5	6.7%
Offer both BA and MA or PhD w/emphasis in ECE/CD	11	15%

* Does not include two non-responding institutions: Humboldt State University, known to offer a BA in Liberal Studies with an emphasis in ECE, and CSU San Marcos, known to offer a BS in Psychology and Human Development with a CD concentration.

Baccalaureate Programs in Early Childhood Education or Child Development

California State University System

The California State University (CSU) system, with 22 campuses statewide, provides most of the state's baccalaureate training in ECE or CD. More than three-quarters of the estimated 7,000 students enrolled in any coursework leading to any bachelor's degree offering a concentration in early childhood education or child development are at a CSU institution. Statewide, the CSU system awards about 800 bachelor's degrees each year to students who emphasized an ECE or CD curriculum; this figure, however, does not include three CSU campuses that indicated they were unable to provide an estimate of the number of graduates. Few administrators could estimate how many students continued into work directly related to their ECE training – such as teaching preschool or acting as a preschool director – instead of pursuing a K-8 teaching career or acting as a family or child counselor. Of the 22 CSUs surveyed, only eight provided estimates of the number of graduates continuing into the field. A collective estimate for those eight institutions would put one-third of their bachelor's graduates as continuing into the field upon matriculation.

Table 2
Survey results of CSU institutions' ECE/CD programming

CSU Institution	Program	Name of degree	No. BA students enrolled	BAs conferred annually	No. of BAs continuing into ECE/CD field
California Maritime Academy	No	N/A	N/A	N/A	N/A
California State Polytechnic U, Pomona	No	N/A	N/A	N/A	N/A
California Polytechnic U San Luis Obispo	Yes	BS Child Development	168	34	Not available
CSU Bakersfield	Yes	BA Child, Adolescent & Family Studies	150	50	15
CSU Chico	Yes	BS Human Development	60	20	7
CSU Dominguez Hills	No	N/A	N/A	N/A	N/A
CSU Fresno	Yes	BS Child Development	142	60	57
CSU Fullerton	Yes	BA Child and Adolescent Development	300	Not available	3
CSU Hayward	Yes	BA Liberal Studies w/ ECE emphasis, BA Human Development w/ ECE emphasis	280	40	20

Survey results of CSU institutions' ECE/CD programming, continued

Humboldt State University*	Yes	BA Liberal Studies with CD emphasis, BA Liberal Studies w/ ECE/CD	Non-responder	Non-responder	Non-responder
CSU Long Beach	Yes	BA Family and Consumer Sciences w/CD emphasis	300	Not available	Not available
CSU Monterey Bay	Not yet	BA Human Development, planned '04-'05	0	0	Not available
CSU Los Angeles	Yes	BA Child and Family Studies	1253	40	Not available
CSU Northridge	Yes	BA Child Development	750	250	62
CSU Sacramento	Yes	BA Child Development	614	90	Not available
CSU San Bernardino	Yes	BA Human Development	350	90	4
San Diego State University	Yes	BS Child Development	350	Not avail	Not Available
San Francisco State University	Yes	BA Child and Adolescent Development	132	50	Not Available
CSU San Jose	Yes	BA Child Development	550	130	Not available
CSU San Marcos*	Yes	BS Psychology and Human Development	Non-responder	Non-responder	Non-responder
CSU Sonoma	Yes	BA Human Development, BA MS Credential, ECE Specialization	70	30	Not available
CSU Stanislaus	Yes	BA Child Development, BA Liberal Studies w/ ECE emphasis	382	20	10

*Non-responder not included in survey calculations

University of California System

Within the University of California system, the research arm of California's state-subsidized universities, ECE/CD training is sparse; about 500 baccalaureate students are enrolled system-wide in some related field. Overall, this system places a greater emphasis on research and policy for the early childhood education field than on teacher preparation. Only UC Davis, UC Los Angeles and UC San Diego offer baccalaureate programming related to early care and education. About 450 students are enrolled in a program leading to a BA in Human Development at UC San Diego, but respondents could not indicate how many students graduate from the program each year, nor what proportion of them emphasized training for early childhood education or child development, rather than the development of adolescents or adults. The UCLA program with an early childhood education emphasis is a unique effort embedded in the

Psychology Department; students graduate with a minor in Applied Developmental Psychology, and are able to qualify as a teacher or master teacher on California’s Child Development Permit Matrix. (Future funding of this program is in doubt.)

Table 3
Survey results of UC institutions’ ECE/CD programming

UC Institution	Program	Name of degree	No. BA students enrolled	BAs conferred annually	No. of BAs continuing into ECE/CD field
UC Berkeley	No	N/A	N/A	N/A	N/A
UC Davis	Yes	B.S Human Development	150	10	Not Available
UC Irvine	No	N/A	N/A	N/A	N/A
UC Los Angeles	Yes	BA w/minor in App. Dev. Psy., ECE emphasis	60	15	15
UC Riverside	No	N/A	N/A	N/A	N/A
UC San Diego	Yes	BA Human Development	450	Not Available	Not Available
UC Santa Barbara	No	N/A	N/A	N/A	N/A
UC Santa Cruz	No	N/A	N/A	N/A	N/A

UC Davis confers about ten bachelor’s degrees each year to human development students who concentrate in ECE programming. The university plans to shift its focus, however, reporting that it will emphasize its infant/toddler teacher training program in coming years, and will phase out the preschool practicum (for children aged 3-5) at the university-based early learning center. “Right now, [administrators] want to use their restricted resources in an area where there is probably less programmatic attention and research,” said a former program director.

Private Colleges and Universities

Private colleges and universities in California have approximately 700 students enrolled in bachelor’s degree programs in ECE or CD, and confer about 200 bachelor’s degrees each year with this specialization. Pacific Oaks College comprises about one-third of the total bachelor’s program enrollment, and about 40 percent of graduates, at private institutions. Below is a chart of privately based programs with an ECE or CD emphasis.

Table 4
Survey results of private colleges that offer ECE/CD programming*

Private Institution	Name of degree	No. BA students enrolled	BAs conferred annually	No. of BAs continuing into ECE/CD field
Bethany College	BA Early Childhood Development	30	6	3
Mills College	BA Child Development	18	9	Not Available
Mount St. Mary's	BA Interdisciplinary, emph CD	26	17	10
National Hispanic University	BA Liberal Studies, emph CD	26	6	0
Point Loma Nazarene University	BA Child Development	65	Not Available	Not Available
Pacific Oaks College	BA Human Development	233	83	66
Pacific Union College	BS Early Childhood Ed	81	20	14
University of LaVerne	BS Child Development	120	60	40
Whittier University	BA Child Development	98	2	Not Available

* In 2003, after research for this paper was conducted, Loyola Marymount University in Los Angeles established a new Early Childhood Education Certificate Program, offering Associate Teacher, Teacher, and Administration and Supervision certificates.

We found that most private institutions in California have a difficult time organizing and sustaining an ECE or CD program. Five private colleges have discontinued their BA programs within the last four years: California Lutheran University, Claremont Graduate School, Fresno Pacific University, Hope International University, and Notre Dame de Namura, according to school officials. Another, Concordia University, is phasing out its program in 2004. Most of these respondents indicated that their programs were very small to begin with (fewer than a dozen students), and did not attract enough demand to warrant a separate program.

Master's and PhD Programs in Early Childhood Education or Child Development

Advanced-degree training in ECE or CD that trains professionals to educate future preschool teachers, or to assume other leadership roles in the field, is handled primarily at private institutions – mainly Pacific Oaks College – or within the California State University system. It is likewise sparse.

Our survey and interviews suggest that the private sector provides about two-thirds of the MA-level training in the field, with a total of approximately 900 master's degree candidates throughout the state. We cannot be sure, however, that students who are trained in child development are actually preparing for a career in early childhood education.

In particular, Pacific Oaks College has 518 enrollees – 90 percent of the estimated total enrollment in private institutions, and 58 percent of the statewide total – in a Master’s in Human Development program. Pacific Oaks graduates about 75 students annually with master’s degrees with an emphasis in ECE; approximately 70 percent of them become early childhood practitioners or educators. Mills College is second among statewide enrollments, with approximately 27 candidates enrolled for a master’s degree in ECE; Mills also has a PhD program in Educational Leadership with an ECE emphasis. Stanford University has 18 candidates enrolled in its PhD program in child and adolescent development, but typically only about two continue into early childhood education or teacher education.

About 290 master’s degree candidates are enrolled in child development or early childhood education programs throughout CSU campuses at Bakersfield, Fresno, Los Angeles, Sacramento, San Diego, San Francisco and Sonoma. CSU Monterey Bay and CSU Stanislaus plan to institute an MA program in coming years.

The University of California system provides little programming in early childhood education at the master’s or PhD levels; approximately 25 master’s degree candidates and 50 PhD candidates are enrolled throughout the system at any given time. UC Davis provides the bulk of advanced degree training within the UC system, offering an MA in Child Development; approximately three of the 25 master’s degree candidates enrolled focus on early childhood. UC Davis also offers a PhD in Child Development, and has about 25 candidates enrolled at any given time, but only one or two with an early childhood emphasis. UC Santa Barbara has about two master’s degree and 15 PhD candidates enrolled in a child and adolescent development program with an ECE concentration. UC Berkeley has one to two PhD candidates enrolled at any given time who specialize in early childhood education, but has no formal program. UCLA has seven to ten PhD candidates *per decade* who specialize in ECE.

Challenges and Emerging Issues

Our survey identified four particular challenges, discussed below, that face four-year institutions in their role in preparing the early care and education workforce. These challenges, of course, are likely to increase even further if teacher standards are raised as part of a California universal preschool effort:

- The need for a clearer certification and credentialing process for the early care and education field – perhaps restoring the Preschool to Grade 3 credential that California phased out in the 1970s, or a similar type of credential;
- The apparent loss of many graduates of four-year ECE/CD programs, who choose not to work in the field of early education;
- A dearth of early childhood education instructors, and especially, a lack of cultural and linguistic diversity among ECE/CD faculty;
- The need for more comprehensive articulation agreements between community college and upper-division ECE/CD programs.

What are some possible ways that four-year ECE/CD programs could “ramp up” for a universal preschool initiative? One promising development is the creation of coordinated programs that encourage community college students to take upper-division courses by locating such courses at community college campuses. Such programs currently exist between Pacific Oaks College and Pasadena City College; San Francisco State University with City College of San Francisco and Cañada College; and CSU Fresno and College of the Sequoias.

An expansion of teacher preparation programs, of course, will require a substantial investment of public resources, and California’s previous experience with elementary school class size reduction may be an instructive model. In 1996, the state decided to limit kindergarten to third grade classrooms to 20 pupils each, and an estimated 18,000 classrooms were added statewide as a result. Because of such a substantial need for more credentialed teachers, the state set targets to grow K-8 departments at the state universities, and provided funding to the CSU system to increase enrollments in its teacher training programs. Although this process may not have been an ideal model, it did increase the number of credentialed teachers, from 7,788 credentials awarded by CSU institutions in 1996-97 to 10,258 awarded in 2000-01.

The California Legislature could similarly decree an increase in child development or early childhood education programs, if the decree were matched with commensurate financial support. As New Jersey (Coffman & Lopez, 2003) and other states have found, raising preschool teacher standards has to come hand in hand with scholarships and other student support, and concerted attention to teacher compensation and parity.

Certification and Credentialing

CSU Hayward, CSU Humboldt, CSU Northridge, CSU Stanislaus, Mount St. Mary’s, the National Hispanic University and possibly other four-year institutions offer bachelor’s degree programs in liberal or interdisciplinary studies with an emphasis in child development or early childhood education. Cumulatively, more than 200 students are enrolled in these bachelor’s programs.

Students enrolled in these kinds of programs have previously been eligible to become K-8 certified teachers without taking a multiple subject credential test, but as of summer 2003, this is no longer possible. The Commission on Teacher Credentialing (CTC) is also retroactively requiring some students who were in CTC-approved subject matter preparation programs to take the credential test, the California Subject Examination for Teachers (CSET).¹⁶ This move is part of the CTC’s response to new mandates in the federal No Child Left Behind Act, requiring teachers in grades K-12 to be certified but allowing states discretion to set their own certification standards.

¹⁶ The CSET replaces the MSAT as the qualifying test for teachers in California. Unlike the MSAT, the CSET can be taken in more than one sitting, which is helpful to those with language or other learning challenges, but each sitting requires full payment, which can be a burden for students, particularly those for whom English is a second language.

Anecdotally, we heard that many of the students seeking waivers were learners of English as a second language, and for some of these students, the standardized test posed particular challenges. There is concern that the new CSET requirement will discourage their entry into the teaching profession at a time when California is attempting to build a more ethnically and linguistically diverse teaching workforce.

Previously, the ease with which a liberal studies student concentrating in ECE could transition out of early education and into a credentialed K-8 teaching position, with the likelihood of earning better pay, had the potential to undermine efforts to grow the early care and education workforce. But ironically, because No Child Left Behind has “upped the ante” for admission into teaching credential programs (e.g., higher grade point averages), students may start focusing greater attention again on early education because they are unable to qualify for elementary-level teaching.

An additional issue is that – unlike in other professions, including social work and nursing – there is no national examination to certify or accredit ECE or CD programs in California. Some professionals recommend a standard curriculum, so that if a four-year institution decides to build a program, it could do so by using a standard curriculum, and then apply for state accreditation. When designing its universal prekindergarten effort, New York built in a measure that automatically “disbars” any institution at which 80 percent of program graduates fail the statewide licensure exam. This prevents colleges and universities from watering down programs and becoming “diploma mills.”

Percentage of ECE/CD Students Who Continue in the Field as Practitioners

Data are particularly vague on the number of students with an ECE focus who continue into the field to become early childhood caregivers or preschool teachers. “That’s a source of frustration,” said the program director of a UC early childhood program. “I keep asking, ‘Do we know how many people stay in the field?’ No one seems to know.”

Twenty-three schools that participated in the survey declined to estimate the number of graduates who become ECE practitioners. Of those who provided estimates, a collective guess would put between one-third to one-half of bachelor’s graduates focusing on ECE as working in the field upon graduation. Given the generally low wages of the ECE sector of the teaching profession, and the related high rates of ECE teacher turnover (Bellm et al., 2002; Whitebook & Bellm, 1999), California will be in a difficult position for building its preschool workforce without significant attention to compensation. Maintaining the existing early childhood education workforce is problematic; growing it would be even more difficult.

The ethnicity of current ECE students seems proportional to general student body overall, most respondents say. But this does not match projected needs for the next generation of preschool teachers. The California Master Plan projects that the number of Hispanic children ages 0-4 will increase by 63 percent between 2000 and 2020, and that

the number of Asian American or Pacific Islander children ages 0-4 will increase by 49 percent during the same time period (Joint Committee to Develop a Master Plan for Education, 2002). The issues of linguistic and cultural appropriateness are especially important at the point of young children’s development of language and identity. Based on this preliminary survey, we would conclude that there are not enough educational opportunities in ECE or CD at the four-year college or university level in California to meet projected demands for a well trained, and ethnically and linguistically diverse, early care and education workforce.

Who Will Train the Next Generation of Teachers?

As indicated by the data below, California also has an insufficient supply of professors and other faculty to educate and train the next generation of early childhood teachers. While official data are unavailable on the number of ECE instructors at California’s four-year colleges and universities, the results of our telephone survey indicate that there are approximately 300 full- and part-time instructors at four-year institutions in the state.

Table 5
Survey results of full-time and part-time ECE or CD faculty at California Four-Year institutions

System	Full-Time ECE or CD instructors	Part-time ECE or CD instructors
University of California	5	0
California State Universities	92	65
Private colleges or universities	75	84
Totals	172	149

Four-year universities report that finding and retaining instructors who specialize in early childhood education, and who are culturally and linguistically representative of their student body, is their greatest challenge, according to researchers Diane Early and Pamela Winton (Early & Winton, 2001). Indeed, when a CSU program director needed to hire a bilingual ECE professor six years ago, she had to go all the way to Chile to find a qualified person. The Early-Winton study reports that only 1.5 percent of surveyed faculty nationwide at four-year universities, and 3.4 percent at two-year colleges, are Hispanic; 82.1 percent of faculty at four-year institutions, and 79.1 percent at the two-year institutions, are White.

“In terms of early childhood – but not child development – you’ll get a child psychologist but not necessarily the orientation or practical experience of working with preschool children,” said a Southern California CSU professor. “It’s very difficult to find people whose research interest, training and practical experience are in working with children and young students’ families.”

Articulation

Instructors at four-year universities interviewed at length agreed that a four-year degree made for a better-prepared teacher. But community colleges are traditionally the training ground for early childhood teachers, and a complementary role for the two-year

system would need to be found – or at least a clarification of the competing roles between two-year and four-year institutions would need to be made – if California raises its bar on preschool teacher prerequisites. “There has to be a distinction in the purview between community colleges and universities,” said a CSU program developer. “Many community colleges are charged with vocational training in child development. We need to bridge the gap between the vocational programming at a two-year program, and a four-year program where they see themselves as professionals with more knowledge of education.”

Many program directors interviewed said that more career counseling needs to happen at the community college level, to get two-year students there interested in continuing their education at the four-year level. “If we can figure out how to target and motivate those people in the field who really want to get into this field early in their career, that’s what we need,” said a southern California CSU professor. “But it’s all ad hoc. Community colleges are just worried about getting them into units, to satisfy their job credits.” Blended programs, as noted above, can be a significant way to address this gap.

Conclusion and Recommendations

This paper represents a preliminary scan of the current state of early childhood education and child development programs in California’s higher education system. Given the current demands on these programs, and potentially rising demands related to a statewide preschool effort, our intention was to find out what is currently known and what other information needs to be collected.

Further data will be available by the end of 2004 through a nationwide survey being conducted by the Center for the Study of Child Care Employment at the University of California at Berkeley in collaboration with the National Pre-kindergarten Center (NPC) at the University of North Carolina at Chapel Hill. The survey will provide more detailed faculty and student profiles – an area of information that is particularly needed at the BA and graduate program levels – as well as data on courses of study offered, and the specific successes, barriers and challenges of these programs.

In addition, First 5 California has recently agreed to commission a statewide early care and education workforce survey in California in 2004. Once these workforce survey data are available, we will be able to make projections on such questions as how many additional personnel might need to earn BA degrees, and what the resulting demands on the state’s higher education system would be.

For now, however, our preliminary survey has clearly identified four significant challenges that would likely become more pressing if these programs were called upon to grow in response to a statewide universal preschool effort:

- the need for a clearer certification and credentialing process for the early care and education field;

- the inability of the ECE field to recruit and retain many graduates of these programs;
- a dearth of (and lack of diversity among) early childhood education instructors;
- a general lack of articulation between community college and upper-division ECE/CD programs.

California’s community colleges, in particular, already face a number of challenges and stresses, at the same time that they may be called upon to grow in response to a statewide preschool effort: funding cuts due to the California budget crisis; limited classroom space and faculty, limited availability of certain course offerings (particularly in languages other than English), a lack of uniformity among community colleges in terms of the content of courses and degree programs, and a lack of articulation among community colleges.

In the coming years, in response to changing standards for teacher education as part of a universal preschool system, major attention to California’s higher education infrastructure will be crucial. While no precise price tag has been attached to the effort, preschool planners and advocates have begun to discuss this issue in order to meet increased student needs. Other states – particularly Georgia, Illinois, Massachusetts, New Jersey and New York – have recognized the need to make a significant investment in higher education as part of preschool implementation, and we can learn from their experience.¹⁷ Hand in hand with setting new standards, California must also address the need for better compensation for the preschool workforce, aiming for parity with elementary school educators.

We offer the following recommended approaches to the workforce training and education challenges ahead:

1. Reform the current certification system (including creation of a new early childhood education credential) to reflect new standards for universal preschool, and to establish more efficient accreditation mechanisms for higher education coursework related to early childhood certification.

- Rationale: The current certification system does not include a credential, and the existing Early Childhood Specialist Credential is intended primarily for those already holding an elementary school credential. The California Standard Early Childhood Education Credential, which covered preschool through Grade 3, was discontinued many years ago. The current Child Development Permit Matrix would require revision in light of a new credential; in addition, after more than a decade, the field has identified several limitations that require reform, including the “professional growth hours” system. Currently, students may complete early childhood coursework intended to meet Child Development Permit requirements, only to learn that the work is not approved by the CTC. Education and training programs for

¹⁷ The New Jersey experience is detailed in Coffman & Lopez (2003).

early childhood education are not pre-approved, as they are for K-12 credential programs.

- Possible Mechanism: In conjunction with establishment of guidelines, create a new credential (e.g., Birth to Age 8) and revise existing Child Development Permit Matrix in line with the newly developed guidelines on skills and competencies. Work with the CTC to develop this mechanism, and provide funding, for a more streamlined higher education program approval mechanism and certification review functions.

2. Develop a comprehensive menu of supports and incentives for higher education to ensure the linguistic and cultural diversity of the early care and education workforce across all roles, as well as to enable all geographic regions of the state to meet new requirements.

- Rationale: The current early care and education workforce is diverse with respect to educational background, literacy, English proficiency, bilingual skills, and economic resources. New requirements pose varying challenges for different subgroups of the workforce, including but not limited to the following: those with education and training from other countries, those with limited English proficiency, those with limited English literacy (both native and second-language speakers), those with limited formal education in any language, those who have completed early childhood courses but face general education requirement barriers, those with completed AA or BA degrees but limited financial resources or geographic proximity to the next level of college/university education. In the absence of efforts to support a diverse ECE workforce, the field could end up looking like K-12 education, in which the workforce is well trained but lacking in diversity (Shields et al., 1999).
- Suggested Mechanisms: Identify a menu of supports necessary to assist the workforce in meeting new standards, and provide resources to initially pilot these supports and then to expand them statewide. Supports would include such things as expansion of scholarships (including reimbursements for enrollment fees offered by the Child Development Training Consortium) to assist with pre-college, community college, upper-division and graduate coursework related to early childhood certification; mentoring; development of new scholarship programs targeted at particular groups (e.g., bilingual pre-AA workers seeking a BA over an extended period); resources to allow colleges to provide more worksite, rural and online education and training; resources for transcript evaluation, including those from other countries; expanded resources for dedicated counselors at all accredited institutions of higher education familiar with ESL and early childhood certification issues; and expanded funding for targeted early childhood education programs to assist ESL students.

3. Establish a legislatively commissioned group (e.g., higher education consortium) focused on assessing and financing the increased capacity required for higher education/training institutions to meet workforce demand, realistic phase-in

requirements for new standards, costs associated with expanding current offerings or creating programs (e.g., blended credential programs), recruiting a more diverse pool of instructors, and developing articulation agreements among two- and four-year institutions of higher education as well as between institutions and the certification body (CTC).

- Rationale: In order to meet new standards for universal preschool, and in many cases existing standards for early care and education programs, institutions of higher education will need additional resources and coordination. The community colleges are heavily involved in professional preparation for the early care and education field, but often have insufficient resources to offer enough and conveniently timed and located classes for interested students. Further, their courses are often accepted only as electives, and not allowed to fulfill major requirements when students transfer to colleges and universities. Some of the CSU and UC campuses offer child development majors or coursework, but not all include an early childhood focus. There are only limited graduate-level options in early childhood education. At all levels of the system, the relationship between higher education instruction and certification is problematic, and there is no requirement for the various components of the system to communicate with each other.
- Suggested Mechanism: Require a state-sanctioned body to develop an Early Care and Education Workforce Development Plan (modeled to some extent on plans for elementary school class size reduction, including lessons learned), including participation by the Community College Chancellor's office, the UC and CSU Boards of Regents, and the CTC, charged with developing select pilot programs to test out new program models, e.g., blended credential programs for early care and education or leadership development programs to create a large cadre of bilingual master-degreed early childhood experts who can teach a diverse workforce. Provide resources for higher education institutions to plan and implement programs to meet new requirements for coursework and certification (accreditation of their programs).

The Appendices to this paper contain further information on California required staff qualifications, career options for the ECE workforce, and data from the Community College Chancellor's Office database broken down by county and by college.

For further discussion of policy issues in ECE workforce education and training, see also "A Workforce Agenda for the Creation of a Universal Preschool System in California" (Whitebook, 2003). That policy brief was written as part of the Center for the Study of Child Care Employment's (CSCCE) "Next Steps" project, which is focused on informing the growing discussion of a statewide Preschool For All system in California, by studying seven major workforce topics related to preschool planning:

- Skills and competencies
- Standards and certification

- Workforce supports and incentives
- Compensation
- The readiness of California's higher education system to ensure a well-trained preschool workforce
- A mechanism to centralize workforce information
- Ongoing data collection on workforce characteristics.

During 2004, with support from the David and Lucile Packard Foundation, CSCCE will be preparing a series of policy briefs – including research summaries and policy recommendations – on these workforce issues. Please visit the CSCCE web site at <http://www.iir.berkeley.edu/cscce/index.html> for details.

Increased calls for higher educational qualifications in the preschool workforce have emerged from a growing body of research over the past decade that has highlighted the importance of teacher training for program quality and positive child outcomes. Such calls for increased standards are generally related to the preparation of head teachers; not everyone in the preschool workforce would necessarily be required to meet such higher standards, since there would presumably be a variety of staffing roles. At the same time, a number of concerns are being raised about establishing higher standards – especially with regard to the possible rise in cost of early care and education services. Yet unless California and other states are able to address the related needs of better preparation and higher compensation for the early care and education workforce, and comparability with the K-12 teaching workforce, we are likely to continue to fall short of creating a high-quality, stable preschool education system for young children and their families.

Appendix A

Table 6

Required Staff Qualifications: Title 22 and Title 5 of the 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

Table 7

Career Options for the Early Care and Education Workforce

<i>Term</i>	<i>Definition</i>
<i>Award</i>	General term used to acknowledge that an individual accomplished or earned merit (i.e.- certificate or degree).
<i>Certificate</i>	An award recognizing that an individual took a number of specific ECE/CD courses. Certificates are generally granted by community colleges.
<i>Degree</i>	Refers to an Associate of Arts, Associate of Science, or Bachelor of Arts degree. A degree can be granted by either a two-year or four-year institution.
<i>Permit</i>	A document that is conferred by the Commission on Teacher Credentialing upon approval of an individual's coursework at an accredited college. A two-year institution of higher education cannot confer a permit.

Appendix B

Table 8
California Community Colleges Granting Awards in
Early Childhood Education and Child Development

1. Allan Hancock College	2. American River College	3. Antelope Valley College
4. Bakersfield College	5. Barstow College	6. Butte College
7. Cabrillo College	8. Canada College	9. Cerritos College
10. Cerro Coso Community College	11. Chabot College	12. Chaffey College
13. Citrus College	14. City College of San Francisco	15. College of Marin
16. College of the Canyons	17. College of the Desert	18. College of the Redwoods
19. College of the Sequoias	20. College of the Siskiyous	21. Columbia College
22. Compton Community College	23. Contra Costa College	24. Cosumnes River College
25. Crafton Hills College	26. Cuesta College	27. Cuyamaca College
28. De Anza College	29. Diablo Valley College	30. East Los Angeles College
31. El Camino College	32. Feather River College	33. Foothill College
34. Fresno City College	35. Fullerton College	36. Gavilan College
37. Glendale Community College	38. Grossmont College	39. Hartnell College
40. Imperial Valley College	41. Irvine Valley College	42. Lake Tahoe Community College
43. Las Positas College	44. Lassen Community College	45. Long Beach City College
46. Los Angeles City College	47. Los Angeles Harbor College	48. Los Angeles Mission College
49. Los Angeles Pierce College	50. Los Angeles Southwest College	51. Los Angeles Trade-Technical College
52. Los Angeles Valley College	53. Los Medanos College	54. Mendocino College
55. Merced College	56. Merritt College	57. Mira Costa College
58. Mission College	59. Modesto Junior College	60. Monterey Peninsula College
61. Moorpark College	62. Mt. San Antonio College	63. Mt. San Jacinto College
64. Napa Valley College	65. Ohlone College	66. Orange Coast Community College
67. Oxnard College	68. Palo Verde College	69. Palomar College
70. Pasadena City College	71. Porterville College	72. Reedley College
73. Rio Hondo College	74. Riverside Community College	75. Sacramento City College
76. Saddleback College	77. San Bernardino Valley College	78. San Diego City College
79. San Diego Mesa College	80. San Diego Miramar College	81. San Joaquin Delta College

82. San Jose City College	83. Santa Ana College	84. Santa Barbara City College
85. Santa Monica College	86. Santa Rosa Junior College	87. Santiago Canyon College
88. Shasta College	89. Sierra College	90. Skyline College
91. Solano Community College	92. Southwestern College	93. Taft College
94. Ventura College	95. Victor Valley College	96. West Hills College
97. West Los Angeles College	98. West Valley College	99. Yuba Community College

Appendix C

Table 9
Early Childhood/Child Development Degrees Awarded by California Community Colleges in 2002-2003 and from 1998-2003, by County and by College¹⁸

County/College	Degrees Awarded 2002-2003			Degrees Awarded 1998-2003		
	AA	AS	Total	AA	AS	Total
Alameda (4)	60	0	60	256	1	257
Chabot	29	0	29	94	1	95
Las Positas	6	0	6	34	0	34
Merritt	21	0	21	108	0	108
Ohlone	4	0	4	20	0	20
Butte (1)	5	11	16	30	50	80
Butte	5	11	16	30	50	80
Contra Costa (3)	0	17	17	0	56	56
Contra Costa	0	12	12	0	32	32
Diablo Valley	0	0	0	0	0	0
Los Medanos	0	5	5	0	24	24
Del Norte (1)	-	-	-	-	-	-
College of the Redwoods- Crescent City ¹⁹	-	-	-	-	-	-
El Dorado (1)	3	0	3	22	0	22
Lake Tahoe	3	0	3	22	0	22
Fresno (3)	19	79	98	57	333	390
Fresno City	0	45	45	0	197	197
Reedley	0	31	31	0	132	132
West Hills	19	3	22	57	4	61
Humboldt (1)	0	10	10	0	56	56
College of the Redwoods	0	10	10	0	56	56
Imperial (1)	18	6	24	82	23	105
Imperial Valley	18	6	24	82	23	105
Kern (3)	2	44	46	6	133	139
Bakersfield	1	31	32	4	87	91
Cerro Coso	0	5	5	0	23	23
Taft	1	8	9	2	23	25

¹⁸ In several rural counties, community college centers are established in remote locations. Many of these centers offer ECE/CD courses, not all of which are captured by these data.

¹⁹ No data available

	Degrees Awarded 2002-2003			Degrees Awarded 1998-2003		
County/College	AA	AS	Total	AA	AS	Total
Lassen (1)	6	0	6	28	0	28
Lassen	6	0	6	28	0	28
Los Angeles (21)	404	130	534	1580	557	2137
Antelope Valley	27	0	27	120	0	120
College of the Canyons	0	15	15	0	68	68
Glendale	0	18	18	0	71	71
Los Angeles Mission	20	0	20	100	0	100
Los Angeles Pierce	4	0	4	11	0	11
Los Angeles Valley	62	0	62	216	0	216
Citrus	0	0	0	4	1	5
East Los Angeles	48	0	48	150	0	150
Mt. San Antonio	0	17	17	0	53	53
Pasadena City	0	0	0	10	8	18
Los Angeles City	46	0	46	291	0	291
Los Angeles Trade-Technical	35	0	35	87	0	87
Santa Monica	27	0	27	85	0	85
West Los Angeles	16	0	16	53	0	53
Compton Community	0	0	0	0	1	1
Los Angeles Southwest	36	0	36	114	0	114
Cerritos	28	0	28	90	0	90
Rio Hondo	0	60	60	0	241	241
El Camino	30	0	30	144	2	146
Long Beach City	25	0	25	105	0	105
Los Angeles Harbor	0	20	20	0	112	112
Marin (1)	0	4	4	0	21	21
College of Marin	0	4	4	0	21	21
Mendocino (1)	3	13	16	7	58	65
Mendocino College	3	13	16	7	58	65
Merced (1)	35	0	35	167	0	167
Merced College	35	0	35	167	0	167
Monterey (2)	5	10	15	45	35	80
Hartnell	5	0	5	45	0	45
Monterey Peninsula	0	10	10	0	35	35
Napa (1)	0	6	6	0	42	42
Napa Valley	0	6	6	0	42	42

	Degrees Awarded 2002-2003			Degrees Awarded 1998-2003		
County/College	AA	AS	Total	AA	AS	Total
Orange (6)	29	8	37	160	54	214
Fullerton	7	0	7	79	0	79
Irvine Valley	0	3	3	0	33	33
Orange Coast	0	0	0	0	0	0
Saddleback	5	5	10	16	16	32
Santa Ana	12	0	12	52	5	57
Santiago Canyon	5	0	5	13	0	13
Placer (1)	17	4	21	59	13	72
Sierra ²⁰	17	4	21	59	13	72
Plumas (1)	0	0	0	8	0	8
Feather River	0	0	0	8	0	8
Riverside (4)	8	48	56	52	167	219
College of the Desert	8	0	8	24	0	24
Mt. San Jacinto	0	15	15	0	84	84
Palo Verde	0	3	3	0	11	11
Riverside	0	30	30	28	72	100
Sacramento (3)	84	0	84	383	0	383
American River	37	0	37	173	0	173
Cosumnes River	32	0	32	140	0	140
Sacramento City College	15	0	15	70	0	70
San Bernardino (5)	47	77	124	134	344	478
Barstow	0	14	14	0	49	49
Chaffey	0	31	31	1	134	135
Crafton Hills	21	0	21	45	0	45
San Bernardino	26	0	26	88	0	88
Victor Valley	0	32	32	0	161	161

²⁰Sierra College serves Placer, Nevada and portions of El Dorado and Sacramento Counties.

County/College	Degrees Awarded 2002-2003			Degrees Awarded 1998-2003		
	AA	AS	Total	AA	AS	Total
San Diego (8)	93	119	212	425	550	975
Cuyamaca	0	12	12	0	61	61
Grossmont	0	27	27	0	109	109
Mira Costa	2	0	2	26	0	26
Palomar	12	0	12	54	0	54
San Diego City College	0	46	46	0	214	214
San Diego Mesa	1	15	16	3	94	97
San Diego Miramar	0	19	19	0	72	72
Southwestern	78	0	78	342	0	342
San Francisco (1)	0	0	0	0	0	0
City College of San Francisco	0	0	0	0	0	0
San Joaquin (1)	0	0	0	0	0	0
San Joaquin Delta	0	0	0	0	0	0
San Luis Obispo (1)	7	0	7	59	0	59
Cuesta College	7	0	7	59	0	59
San Mateo (2)	0	28	28	2	94	96
Canada College	0	18	18	0	70	70
Skyline College	0	10	10	2	24	26
Santa Barbara (2)	0	45	45	1	169	170
Allan Hancock	0	39	39	0	119	119
Santa Barbara City College	0	6	6	1	50	51
Santa Clara (7)²¹	22	21	43	148	74	222
DeAnza	10	0	10	73	0	73
Evergreen Valley	0	0	0	0	0	0
Foothill	6	0	6	28	0	28
Gavilan	6	0	6	21	0	21
Mission	0	7	7	0	7	7
San Jose City	0	9	9	26	34	60
West Valley	0	5	5	0	33	33

²¹ Mission College information may be accounted for in the numbers for West Valley College. Evergreen Valley College offers only one child development course, included in the San Jose City College data.

	Degrees Awarded 2002-2003			Degrees Awarded 1998-2003		
County/College	AA	AS	Total	AA	AS	Total
Santa Cruz (1)	0	22	22	0	68	68
Cabrillo	0	22	22	0	68	68
Shasta (1)	12	0	12	35	0	35
Shasta	12	0	12	35	0	35
Siskiyou (1)	1	2	3	1	5	6
College of the Siskiyous	1	2	3	1	5	6
Solano (1)	0	22	22	0	65	65
Solano	0	22	22	0	65	65
Sonoma (1)	0	0	0	14	3	17
Santa Rosa Junior College	0	0	0	14	3	17
Stanislaus (1)	15	38	53	66	126	192
Modesto Junior College	15	38	53	66	126	192
Tuolumne (1)	0	7	7	0	42	42
Columbia	0	7	7	0	42	42
Tulare (2)	14	44	58	98	117	215
College of the Sequoias	9	44	53	61	117	178
Porterville College	5	0	5	37	0	37
Ventura (3)	4	53	57	16	247	263
Moorpark	1	18	19	6	83	89
Oxnard	0	22	22	5	109	114
Ventura	3	13	16	5	55	60
Yuba (1)	0	31	31	8	131	139
Yuba	0	31	31	8	131	139

Table 10
Early Childhood/Child Development Certificates Awarded by
California Community Colleges in 2002-2003, by County and by College²²

County/College	Certificates 2002-2003				
	6 to fewer than 18	18 to fewer than 30	30 to fewer than 60	60 or more	Total
Alameda (4)	142	82	37	0	261
Chabot	100	38	0	0	138
Las Positas	37	0	12	0	49
Merritt	3	34	25	0	62
Ohlone	2	10	0	0	12
Butte (1)	0	0	9	0	9
Butte	0	0	9	0	9
Contra Costa (3)	80	13	30	1	124
Contra Costa	16	0	11	0	27
Diablo Valley	64	13	12	1	90
Los Medanos	0	0	7	0	7
Del Norte (1)	-	-	-	-	-
College of the Redwoods- Crescent City ²³	-	-	-	-	-
El Dorado (1)	0	3	0	0	3
Lake Tahoe	0	3	0	0	3
Fresno (3)	0	86	8	0	94
Fresno City	0	63	0	0	63
Reedley	0	22	0	0	22
West Hills	0	1	8	0	9
Humboldt (1)	0	0	0	0	0
College of the Redwoods	0	0	0	0	0
Imperial (1)	12	5	2	0	19
Imperial Valley	12	5	2	0	19
Kern (3)	86	10	20	1	117
Bakersfield	86	0	13	0	99
Cerro Coso	0	0	7	1	8
Taft	0	10	0	0	10

²² In several rural counties, community college centers are established in remote locations. Many of these centers offer ECE/CD courses, not all of which are captured by these data.

²³ No data available

	Certificates 2002-2003				
County/College	6 to fewer than 18	18 to fewer than 30	30 to fewer than 60	60 or more	Total
Lassen (1)	5	0	0	0	5
Lassen	5	0	0	0	5
Los Angeles (21)	1449	384	339	24	2196
Antelope Valley	0	0	17	0	17
College of the Canyons	0	2	0	0	2
Glendale	0	0	21	0	21
Los Angeles Mission	0	0	43	0	43
Los Angeles Pierce	104	7	2	0	113
Los Angeles Valley	346	9	0	0	355
Citrus	0	0	0	0	0
East Los Angeles	115	0	18	0	133
Mt. San Antonio	1	203	10	0	214
Pasadena City	0	0	0	24	24
Los Angeles City	168	41	36	0	245
Los Angeles Trade-Technical	188	14	16	0	218
Santa Monica	0	0	84	0	84
West Los Angeles	107	0	16	0	123
Compton Community	0	0	55	0	55
Los Angeles Southwest	315	0	0	0	315
Cerritos	0	0	21	0	21
Rio Hondo	0	68	0	0	68
El Camino	0	8	0	0	8
Long Beach City	105	26	0	0	131
Los Angeles Harbor	0	6	0	0	6
Marin (1)	0	2	0	0	2
College of Marin	0	2	0	0	2
Mendocino (1)	0	7	0	0	7
Mendocino College	0	7	0	0	7
Merced (1)	0	0	0	0	0
Merced College	0	0	0	0	0
Monterey (2)	0	4	2	0	6
Hartnell	0	0	2	0	2
Monterey Peninsula	0	4	0	0	4
Napa (1)	0	0	7	0	7
Napa Valley	0	0	7	0	7

	Certificates 2002-2003				
County/College	6 to fewer than 18	18 to fewer than 30	30 to fewer than 60	60 or more	Total
Orange (6)	10	12	58	0	80
Fullerton	10	0	0	0	10
Irvine Valley	0	8	5	0	13
Orange Coast	0	0	25	0	25
Saddleback	0	1	13	0	14
Santa Ana	0	3	15	0	18
Santiago Canyon	0	0	0	0	0
Placer (1)	0	3	5	0	8
Sierra ²⁴	0	3	5	0	8
Plumas (1)	3	0	1	0	4
Feather River	3	0	1	0	4
Riverside (4)	170	9	73	0	252
College of the Desert	0	9	0	0	9
Mt. San Jacinto	0	0	9	0	9
Palo Verde	8	0	4	0	12
Riverside	162	0	60	0	222
Sacramento (3)	199	71	29	0	299
American River	89	18	9	0	116
Cosumnes River	76	40	10	0	126
Sacramento City College	34	13	10	0	57
San Bernardino (5)	6	58	23	2	89
Barstow	0	15	0	0	15
Chaffey	0	26	14	0	40
Crafton Hills	6	2	0	0	8
San Bernardino	0	1	4	0	5
Victor Valley	0	14	5	2	21

²⁴ Sierra College serves Placer, Nevada and portions of El Dorado and Sacramento Counties.

County/College	Certificates 2002-2003				
	6 to fewer than 18	18 to fewer than 30	30 to fewer than 60	60 or more	Total
San Diego (8)	0	156	203	0	359
Cuyamaca	0	0	14	0	14
Grossmont	0	0	23	0	23
Mira Costa	0	2	47	0	49
Palomar	0	0	10	0	10
San Diego City College	0	92	2	0	94
San Diego Mesa	0	22	2	0	24
San Diego Miramar	0	36	2	0	38
Southwestern	0	4	103	0	107
San Francisco (1)	13	200	0	27	240
City College of San Francisco	13	200	0	27	240
San Joaquin (1)	0	4	6	5	15
San Joaquin Delta	0	4	6	5	15
San Luis Obispo (1)	9	1	2	0	12
Cuesta College	9	1	2	0	12
San Mateo (2)	0	61	0	0	61
Canada College	0	33	0	0	33
Skyline College	0	28	0	0	28
Santa Barbara (2)	0	6	14	2	22
Allan Hancock	0	6	3	0	9
Santa Barbara City College	0	0	11	2	13
Santa Clara (7)²⁵	24	44	31	0	99
DeAnza	0	25	0	0	25
Evergreen Valley	0	0	0	0	0
Foothill	0	0	20	0	20
Gavilan	0	5	0	0	5
Mission	-	-	-	-	0
San Jose City	7	0	0	0	7
West Valley	17	14	11	0	42

²⁵ Mission College information may be accounted for in the numbers for West Valley College. Evergreen Valley College offers only one child development course, included in the San Jose City College data.

	Certificates 2002-2003				
County/College	6 to fewer than 18	18 to fewer than 30	30 to fewer than 60	60 or more	Total
Santa Cruz (1)	0	0	22	0	22
Cabrillo	0	0	22	0	22
Shasta (1)	0	0	4	0	4
Shasta	0	0	4	0	4
Siskiyou (1)	9	0	5	0	14
College of the Siskiyous	9	0	5	0	14
Solano (1)	0	0	19	0	19
Solano	0	0	19	0	19
Sonoma (1)	91	12	0	0	103
Santa Rosa Junior College	91	12	0	0	103
Stanislaus (1)	0	65	0	0	65
Modesto Junior College	0	65	0	0	65
Tuolumne (1)	0	5	0	0	5
Columbia	0	5	0	0	5
Tulare (2)	7	0	72	0	79
College of the Sequoias	0	0	72	0	72
Porterville College	7	0	0	0	7
Ventura (3)	0	50	3	1	54
Moorpark	0	3	1	1	5
Oxnard	0	41	1	0	42
Ventura	0	6	1	0	7
Yuba (1)	91	2	11	0	104
Yuba	91	2	11	0	104

Table 11
Ethnicity of Students Enrolled in Early Childhood/Child Development Classes in 2002-2003
at California Community Colleges, by County and by College²⁶

<i>County/College</i>	Ethnicity 2002-2003								
	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Alameda (4)	4489	925	28	997	164	927	28	1147	273
Chabot	1382	199	8	217	95	423	12	351	77
Las Positas	673	31	10	60	11	114	1	432	14
Merritt	1830	672	8	450	30	318	7	218	127
Ohlone	604	23	2	270	28	72	8	146	55
Butte (1)	1252	31	32	61	5	163	5	885	70
Butte	1252	31	32	61	5	163	5	885	70
Contra Costa (3)	4556	793	34	413	244	747	40	1895	390
Contra Costa	967	345	7	118	48	203	10	178	58
Diablo Valley	2134	110	12	222	147	261	21	1125	236
Los Medanos	1455	338	15	73	49	283	9	592	96
Del Norte (1)	-	-	-	-	-	-	-	-	-
College of the Redwoods- Crescent City ²⁷	-	-	-	-	-	-	-	-	-

²⁶ In several rural counties, community college centers are established in remote locations. Many of these centers offer ECE/CD courses, not all of which are captured by these data.

²⁷ No data available

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
El Dorado (1)	282	3	8	8	3	41	0	204	15
Lake Tahoe	282	3	8	8	3	41	0	204	15
Fresno (3)	4949	393	58	213	27	2610	19	1217	412
Fresno City	2876	324	38	173	16	1312	18	708	287
Reedley	1428	40	10	34	4	863	1	367	109
West Hills	645	29	10	6	7	435	0	142	16
Humboldt (1)	592	4	71	4	1	34	1	424	53
College of the Redwoods	592	4	71	4	1	34	1	424	53
Imperial (1)	462	2	2	1	2	408	0	41	6
Imperial Valley	462	2	2	1	2	408	0	41	6
Kern (3)	3057	306	79	45	45	1084	9	1392	97
Bakersfield	2010	248	34	24	30	880	3	724	67
Cerro Coso	776	51	40	18	13	106	6	514	28
Taft	271	7	5	3	2	98	0	154	2
Lassen (1)	279	6	12	4	1	36	0	218	2
Lassen	279	6	12	4	1	36	0	218	2

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Los Angeles (21)	38512	6020	203	2717	878	18638	140	7278	2638
Antelope Valley	984	335	15	11	7	241	2	344	29
College of the Canyons	651	25	6	27	5	147	2	384	55
Glendale	1237	15	3	116	52	315	4	631	101
Los Angeles Mission	1934	121	10	65	23	1473	2	179	61
Los Angeles Pierce	1630	113	11	185	47	452	7	639	176
Los Angeles Valley	2166	102	12	129	95	948	6	694	180
Citrus	1505	94	7	62	21	834	0	407	80
East Los Angeles	4583	154	14	315	28	3885	7	86	94
Mt. San Antonio	2925	195	12	404	198	1469	14	542	91
Pasadena City	2280	166	13	363	37	755	5	536	405
Los Angeles City	1651	223	2	94	89	924	1	251	67
Los Angeles Trade-Technical	1717	682	2	21	10	944	0	21	37
Santa Monica	1083	144	5	105	5	343	3	369	109
West Los Angeles	1431	748	4	57	13	391	5	125	88
Compton Community	781	543	2	24	5	192	9	3	3
Los Angeles Southwest	1153	931	2	4	2	189	0	1	24
Cerritos	2427	212	23	122	27	1349	3	246	445
Rio Hondo	1847	22	8	83	8	1511	5	143	67
El Camino	1968	528	9	120	30	685	11	393	192
Long Beach City	3291	432	35	347	101	1011	29	1066	270
Los Angeles Harbor	1268	235	8	63	75	580	25	218	64

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Marin (1)	551	23	5	36	3	109	3	329	43
College of Marin	551	23	5	36	3	109	3	329	43
Mendocino (1)	575	5	47	5	1	148	0	366	3
Mendocino College	575	5	47	5	1	148	0	366	3
Merced (1)	1284	55	11	86	20	552	4	499	57
Merced College	1284	55	11	86	20	552	4	499	57
Monterey (2)	1893	49	13	61	38	972	15	592	153
Hartnell	1004	13	5	9	10	815	1	87	64
Monterey Peninsula	889	36	8	52	28	157	14	505	89
Napa (1)	736	48	9	14	30	228	11	344	52
Napa Valley	736	48	9	14	30	228	11	344	52
Orange (6)	6542	166	37	745	111	2427	21	2689	346
Fullerton	1347	59	7	121	31	495	3	569	62
Irvine Valley	731	19	2	146	20	100	3	385	56
Orange Coast	1346	22	9	213	22	293	3	730	54
Saddleback	582	10	2	42	10	92	2	371	53
Santa Ana	1718	38	7	167	18	1153	4	259	72
Santiago Canyon	818	18	10	56	10	294	6	375	49

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Placer (1)	2341	34	45	27	24	218	15	1843	135
Sierra ²⁸	2341	34	45	27	24	218	15	1843	135
Plumas (1)	191	1	5	3	0	11	0	161	10
Feather River	191	1	5	3	0	11	0	161	10
Riverside (4)	4379	481	55	112	44	1566	6	1846	269
College of the Desert	442	12	0	12	1	269	0	136	12
Mt. San Jacinto	1352	64	24	19	16	334	2	766	127
Palo Verde	208	10	3	0	0	92	1	70	32
Riverside	2377	395	28	81	27	871	3	874	98
Sacramento (3)	6544	1026	109	670	158	941	56	3243	341
American River	2687	368	48	151	38	372	18	1525	167
Cosumnes River	2241	336	28	239	65	279	23	1176	95
Sacramento City College	1616	322	33	280	55	290	15	542	79
San Bernardino (5)	5611	971	64	217	45	2178	22	1919	195
Barstow	291	57	9	4	2	66	0	149	4
Chaffey	2075	276	12	58	27	1006	5	592	99
Crafton Hills	589	19	9	19	3	135	2	368	34
San Bernardino	1987	557	28	127	8	816	12	385	54
Victor Valley	669	62	6	9	5	155	3	425	4

²⁸Sierra College serves Placer, Nevada and portions of El Dorado and Sacramento Counties.

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
San Diego (8)	12705	1133	127	506	634	4288	103	5108	806
Cuyamaca	746	54	13	21	21	149	9	406	73
Grossmont	2077	163	17	76	59	376	20	1225	141
Mira Costa	1872	130	16	95	7	410	9	1142	63
Palomar	1963	85	40	73	67	492	26	1078	102
San Diego City College	1484	402	12	54	49	581	8	224	154
San Diego Mesa	1078	106	13	83	63	244	7	452	110
San Diego Miramar	592	36	10	76	67	64	8	273	58
Southwestern	2893	157	6	28	301	1972	16	308	105
San Francisco (1)	2678	322	9	1168	152	487	14	434	92
City College of San Francisco	2678	322	9	1168	152	487	14	434	92
San Joaquin (1)	3428	380	60	385	140	843	21	1364	235
San Joaquin Delta	3428	380	60	385	140	843	21	1364	235
San Luis Obispo (1)	2274	39	27	45	26	320	10	1664	143
Cuesta College	2274	39	27	45	26	320	10	1664	143
San Mateo (2)	2198	126	11	234	171	752	31	779	94
Canada College	1279	80	5	117	49	484	15	477	52
Skyline College	919	46	6	117	122	268	16	302	42
Santa Barbara (2)	2051	62	25	43	24	924	2	806	165
Allan Hancock	1482	46	21	25	16	757	1	465	151
Santa Barbara City College	569	16	4	18	8	167	1	341	14

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Santa Clara (7)²⁹	7834	236	36	2363	304	1878	78	2020	919
DeAnza	1620	55	12	490	61	218	34	415	335
Evergreen Valley	136	11	0	15	14	57	4	22	13
Foothill	352	18	2	63	9	69	6	111	74
Gavilan	605	9	5	16	5	347	0	194	29
Mission	3141	59	8	1378	145	604	15	636	296
San Jose City	1125	68	3	293	51	435	8	150	117
West Valley	855	16	6	108	19	148	11	492	55
Santa Cruz (1)	1161	19	11	22	7	528	6	535	33
Cabrillo	1161	19	11	22	7	528	6	535	33
Shasta (1)	1283	19	48	29	4	97	4	1019	63
Shasta	1283	19	48	29	4	97	4	1019	63
Sierra (1)	2341	34	45	27	24	218	15	1843	135
Sierra	2341	34	45	27	24	218	15	1843	135
Siskiyou (1)	193	4	16	3	0	35	1	125	9
College of the Siskiyous	193	4	16	3	0	35	1	125	9

²⁹ Mission College information may be accounted for in the numbers for West Valley College. Evergreen Valley College offers only one child development course, included in the San Jose City College data.

	Ethnicity 2002-2003								
<i>County/College</i>	Total	African American	American Indian/Alaskan Native	Asian American	Filipino	Hispanic	Pacific Islander	White Non-Hispanic	Other/Unknown
Solano (1)	1859	377	11	72	247	260	39	784	69
Solano	1859	377	11	72	247	260	39	784	69
Sonoma (1)	2107	46	32	57	11	488	7	1329	137
Santa Rosa Junior College	2107	46	32	57	11	488	7	1329	137
Stanislaus (1)	1943	56	28	48	14	785	15	890	107
Modesto Junior College	1943	56	28	48	14	785	15	890	107
Tuolumne (1)	315	1	7	1	2	29	4	249	22
Columbia	315	1	7	1	2	29	4	249	22
Tulare (2)	2929	91	40	113	30	1696	7	837	115
College of the Sequoias	2090	82	31	98	18	1135	6	634	86
Porterville College	839	9	9	15	12	561	1	203	29
Ventura (3)	3305	77	35	89	72	1504	14	1359	155
Moorpark	1161	17	11	53	12	232	4	751	81
Oxnard	1140	35	10	23	42	847	6	142	35
Ventura	1004	25	14	13	18	425	4	466	39
Yuba (1)	1850	45	35	94	4	813	5	814	40
Yuba	1850	45	35	94	4	813	5	814	40

Table 12
Age and Gender of Students enrolled in Early Childhood/Child Development Classes in 2002-2003
at California Community Colleges, by County and by College³⁰

County/College	Age 2002-2003				Gender 2002-2003		
	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Alameda (4)	4489	1694	2794	1	4177	242	70
Chabot	1382	569	812	1	1266	74	42
Las Positas	673	370	303	0	633	32	8
Merritt	1830	519	1311	0	1694	118	18
Ohlone	604	236	368	0	584	18	2
Butte (1)	1252	839	413	0	1098	154	0
Butte	1252	839	413	0	1098	154	0
Contra Costa (3)	4556	2320	2221	15	3864	553	139
Contra Costa	967	345	618	4	865	89	13
Diablo Valley	2134	1375	754	5	1721	342	71
Los Medanos	1455	600	849	6	1278	122	55
Del Norte (1)	-	-	-	-	-	-	-
College of the Redwoods- Crescent City ³¹	-	-	-	-	-	-	-

³⁰ In several rural counties, community college centers are established in remote locations. Many of these centers offer ECE/CD courses, not all of which are captured by these data.

³¹ No data available

County/College	Age 2002-2003				Gender 2002-2003		
	Total	Under 30	30 +	Unknown	Female	Male	Unknown
El Dorado (1)	282	140	142	0	217	65	0
Lake Tahoe	282	140	142	0	217	65	0
Fresno (3)	4949	3116	1832	1	4413	520	16
Fresno City	2876	1983	893	0	2471	398	7
Reedley	1428	770	657	1	1333	88	7
West Hills	645	363	282	0	609	34	2
Humboldt (1)	592	311	279	2	548	39	5
College of the Redwoods	592	311	279	2	548	39	5
Imperial (1)	462	217	245	0	445	17	0
Imperial Valley	462	217	245	0	445	17	0
Kern (3)	3057	1820	1237	0	2799	258	0
Bakersfield	2010	1272	738	0	1832	178	0
Cerro Coso	776	400	376	0	713	63	0
Taft	271	148	123	0	254	17	0
Lassen (1)	279	134	145	0	210	66	3
Lassen	279	134	145	0	210	66	3

County/College	Age 2002-2003			Gender 2002-2003			
	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Los Angeles (21)	38512	22354	15887	271	34196	4132	184
Antelope Valley	984	482	501	1	878	98	8
College of the Canyons	651	452	199	0	605	46	0
Glendale	1237	266	849	122	1103	87	47
Los Angeles Mission	1934	1055	879	0	1751	183	0
Los Angeles Pierce	1630	1094	536	0	1353	277	0
Los Angeles Valley	2166	1339	827	0	1894	272	0
Citrus	1505	920	582	3	1344	157	4
East Los Angeles	4583	2786	1797	0	4033	550	0
Mt. San Antonio	2925	2020	905	0	2527	398	0
Pasadena City	2280	988	1292	0	2105	171	4
Los Angeles City	1651	859	792	0	1460	191	0
Los Angeles Trade-Technical	1717	1134	583	0	1472	245	0
Santa Monica	1083	639	443	1	965	100	18
West Los Angeles	1431	810	621	0	1248	183	0
Compton Community	781	329	446	6	721	59	1
Los Angeles Southwest	1153	560	593	0	1072	81	0
Cerritos	2427	1658	769	0	2235	192	0
Rio Hondo	1847	1235	612	0	1653	191	3
El Camino	1968	1315	653	0	1728	222	18
Long Beach City	3291	1711	1442	138	2916	294	81
Los Angeles Harbor	1268	702	566	0	1133	135	0

	Age 2002-2003				Gender 2002-2003		
County/College	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Marin (1)	551	182	369	0	501	50	0
College of Marin	551	182	369	0	501	50	0
Mendocino (1)	575	321	254	0	530	45	0
Mendocino College	575	321	254	0	530	45	0
Merced (1)	1284	810	469	5	1133	141	10
Merced College	1284	810	469	5	1133	141	10
Monterey (2)	1893	746	1145	2	1578	311	4
Hartnell	1004	384	618	2	961	39	4
Monterey Peninsula	889	362	527	0	617	272	0
Napa (1)	736	396	338	2	632	100	4
Napa Valley	736	396	338	2	632	100	4
Orange (6)	6542	4245	2295	2	5880	654	8
Fullerton	1347	957	390	0	1231	116	0
Irvine Valley	731	348	382	1	675	54	2
Orange Coast	1346	956	390	0	1204	137	5
Saddleback	582	318	263	1	547	34	1
Santa Ana	1718	1090	628	0	1518	200	0
Santiago Canyon	818	576	242	0	705	113	0

County/College	Age 2002-2003				Gender 2002-2003		
	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Placer (1)	2341	1748	593	0	1959	382	0
Sierra ³²	2341	1748	593	0	1959	382	0
Plumas (1)	191	87	103	1	170	21	0
Feather River	191	87	103	1	170	21	0
Riverside (4)	4379	2639	1732	8	4047	278	54
College of the Desert	442	252	190	0	420	22	0
Mt. San Jacinto	1352	713	632	7	1207	93	52
Palo Verde	208	97	110	1	178	28	2
Riverside	2377	1577	800	0	2242	135	0
Sacramento (3)	6544	3931	2613	0	5874	665	5
American River	2687	1518	1169	0	2431	253	3
Cosumnes River	2241	1296	945	0	2016	223	2
Sacramento City College	1616	1117	499	0	1427	189	0
San Bernardino (5)	5611	3526	2041	44	5057	475	79
Barstow	291	168	123	0	272	18	1
Chaffey	2075	1404	671	0	1900	173	2
Crafton Hills	589	421	155	13	498	69	22
San Bernardino	1987	1141	815	31	1772	161	54
Victor Valley	669	392	277	0	615	54	0

³²Sierra College serves Placer, Nevada and portions of El Dorado and Sacramento Counties.

	Age 2002-2003				Gender 2002-2003		
County/College	Total	Under 30	30 +	Unknown	Female	Male	Unknown
San Diego (8)	12705	8023	4670	12	11113	1551	41
Cuyamaca	746	449	293	4	688	53	5
Grossmont	2077	1492	585	0	1813	256	8
Mira Costa	1872	1115	749	8	1505	355	12
Palomar	1963	1380	583	0	1679	270	14
San Diego City College	1484	854	630	0	1346	137	1
San Diego Mesa	1078	742	336	0	954	123	1
San Diego Miramar	592	342	250	0	536	56	0
Southwestern	2893	1649	1244	0	2592	301	0
San Francisco (1)	2678	966	1712	0	2389	235	54
City College of San Francisco	2678	966	1712	0	2389	235	54
San Joaquin (1)	3428	2489	939	0	2851	576	1
San Joaquin Delta	3428	2489	939	0	2851	576	1
San Luis Obispo (1)	2274	1888	386	0	1703	561	10
Cuesta College	2274	1888	386	0	1703	561	10
San Mateo (2)	2198	968	1230	0	2051	139	8
Canada College	1279	485	794	0	1203	69	7
Skyline College	919	483	436	0	848	70	1
Santa Barbara (2)	2051	1163	888	0	1801	247	3
Allan Hancock	1482	718	764	0	1336	145	1
Santa Barbara City College	569	445	124	0	465	102	2

County/College	Age 2002-2003				Gender 2002-2003		
	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Santa Clara (7)³³	7834	3773	3965	96	6168	1435	231
DeAnza	1620	1045	575	0	1431	183	6
Evergreen Valley	136	104	32	0	104	17	15
Foothill	352	170	181	1	326	23	3
Gavilan	605	314	291	0	559	46	0
Mission	3141	1163	1885	93	1980	998	163
San Jose City	1125	468	655	2	1028	65	32
West Valley	855	509	346	0	740	103	12
Santa Cruz (1)	1161	523	638	0	1068	92	1
Cabrillo	1161	523	638	0	1068	92	1
Shasta (1)	1283	869	414	0	1127	155	1
Shasta	1283	869	414	0	1127	155	1
Sierra (1)	2341	1748	593	0	1959	382	0
Sierra	2341	1748	593	0	1959	382	0
Siskiyou (1)	193	85	107	1	175	17	1
College of the Siskiyous	193	85	107	1	175	17	1

³³ Mission College information may be accounted for in the numbers for West Valley College. Evergreen Valley College offers only one child development course, included in the San Jose City College data.

	Age 2002-2003				Gender 2002-2003		
County/College	Total	Under 30	30 +	Unknown	Female	Male	Unknown
Solano (1)	1859	1264	595	0	1563	295	1
Solano	1859	1264	595	0	1563	295	1
Sonoma (1)	2107	1299	808	0	1858	242	7
Santa Rosa Junior College	2107	1299	808	0	1858	242	7
Stanislaus (1)	1943	1093	850	0	1817	126	0
Modesto Junior College	1943	1093	850	0	1817	126	0
Tuolumne (1)	315	205	110	0	282	33	0
Columbia	315	205	110	0	282	33	0
Tulare (2)	2929	1887	1042	0	2560	369	0
College of the Sequoias	2090	1440	650	0	1781	309	0
Porterville College	839	447	392	0	779	60	0
Ventura (3)	3305	2054	1249	2	3009	274	22
Moorpark	1161	778	381	2	1048	104	9
Oxnard	1140	620	520	0	1049	85	6
Ventura	1004	656	348	0	912	85	7
Yuba (1)	1850	973	875	2	1709	141	0
Yuba	1850	973	875	2	1709	141	0

Table 13
Number/Status and Load of Students Enrolled in Early Childhood/Child Development Classes
in 2002-2003 at California Community Colleges, by County and College³⁴

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
Alameda (4)	4489	15.59%	18.67%	41.23%	23.26%	52.35%	24.64%	47.20%
Chabot	1382	14.33%	16.64%	45.37%	22.87%	54.63%	29.81%	50.00%
Las Positas	673	15.90%	15.90%	47.55%	19.91%	53.49%	32.10%	41.16%
Merritt	1830	16.83%	20.27%	35.52%	25.36%	55.57%	17.10%	49.23%
Ohlone	604	14.40%	21.52%	42.05%	21.52%	36.09%	27.32%	41.39%
Butte (1)	1252	16.77%	10.38%	47.68%	23.48%	19.17%	59.58%	35.14%
Butte	1252	16.77%	10.38%	47.68%	23.48%	19.17%	59.58%	35.14%
Contra Costa (3)	4556	29.35%	9.68%	57.81%	1.51%	40.63%	37.34%	35.91%
Contra Costa	967	29.89%	10.13%	59.05%	0.41%	57.70%	30.82%	49.53%
Diablo Valley	2134	29.43%	8.53%	60.54%	1.22%	29.38%	51.50%	24.23%
Los Medanos	1455	28.87%	11.07%	52.99%	2.68%	45.77%	20.89%	43.99%
Del Norte (1)	-	-	-	-	-	-	-	-
College of the Redwoods- Crescent City ³⁵	-	-	-	-	-	-	-	-

³⁴ In several rural counties, community college centers are established in remote locations. Many of these centers offer ECE/CD courses, not all of which are captured by these data.

³⁵ No data available

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
El Dorado (1)	282	8.16%	14.89%	29.79%	38.65%	46.81%	24.11%	56.38%
Lake Tahoe	282	8.16%	14.89%	29.79%	38.65%	46.81%	24.11%	56.38%
Fresno (3)	4949	23.84%	7.46%	48.84%	16.35%	27.44%	50.01%	38.07%
Fresno City	2876	21.24%	6.57%	54.97%	16.97%	26.22%	54.76%	32.23%
Reedley	1428	19.68%	9.31%	47.62%	15.13%	33.47%	43.91%	40.34%
West Hills	645	44.65%	7.29%	24.19%	16.28%	19.53%	42.33%	59.07%
Humboldt (1)	592	17.74%	11.49%	39.70%	30.74%	30.07%	39.02%	40.88%
College of the Redwoods	592	17.74%	11.49%	39.70%	30.74%	30.07%	39.02%	40.88%
Imperial (1)	462	33.12%	3.68%	19.05%	41.77%	22.94%	45.89%	59.52%
Imperial Valley	462	33.12%	3.68%	19.05%	41.77%	22.94%	45.89%	59.52%
Kern (3)	3057	19.23%	9.22%	46.78%	22.47%	33.01%	43.96%	43.44%
Bakersfield	2010	17.46%	4.28%	51.99%	23.73%	37.01%	44.03%	41.49%
Cerro Coso	776	20.62%	16.11%	39.30%	22.29%	27.06%	43.30%	44.72%
Taft	271	28.41%	26.20%	29.52%	13.65%	20.30%	45.39%	54.24%
Lassen (1)	279	33.69%	11.11%	32.26%	19.00%	21.86%	24.37%	51.25%
Lassen	279	33.69%	11.11%	32.26%	19.00%	21.86%	24.37%	51.25%

	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students(%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
County/College								
Los Angeles (21)	38512	17.62%	9.37%	51.95%	14.66%	26.94%	45.60%	41.37%
Antelope Valley	984	31.71%	8.94%	23.98%	25.71%	32.93%	31.71%	41.77%
College of the Canyons	651	15.82%	13.98%	59.60%	8.14%	27.50%	46.85%	49.31%
Glendale	1237	3.07%	3.31%	20.05%	4.45%	13.82%	15.52%	51.01%
Los Angeles Mission	1934	19.70%	9.36%	54.45%	13.91%	30.56%	47.52%	42.97%
Los Angeles Pierce	1630	21.66%	9.08%	51.35%	13.19%	21.60%	49.82%	29.69%
Los Angeles Valley	2166	12.37%	9.10%	56.74%	15.37%	30.10%	46.54%	30.79%
Citrus	1505	19.53%	8.97%	40.00%	15.22%	28.84%	43.46%	51.43%
East Los Angeles	4583	15.88%	9.49%	59.37%	14.14%	30.66%	46.28%	41.89%
Mt. San Antonio	2925	15.21%	8.00%	54.09%	11.08%	17.61%	50.29%	26.56%
Pasadena City	2280	11.49%	14.56%	58.51%	8.16%	16.40%	29.08%	41.89%
Los Angeles City	1651	11.99%	10.84%	63.42%	12.90%	31.98%	47.85%	38.64%
Los Angeles Trade-Technical	1717	17.18%	11.24%	52.94%	12.46%	30.40%	54.63%	42.11%
Santa Monica	1083	9.88%	15.24%	47.18%	26.59%	30.01%	44.88%	37.40%
West Los Angeles	1431	18.45%	17.12%	44.58%	18.17%	34.31%	42.14%	34.80%
Compton Community	781	11.27%	7.55%	68.76%	1.92%	30.35%	62.87%	22.66%
Los Angeles Southwest	1153	16.83%	8.50%	56.11%	17.43%	35.91%	47.18%	49.52%
Cerritos	2427	18.50%	10.05%	53.44%	17.06%	25.59%	52.41%	43.76%
Rio Hondo	1847	16.24%	8.18%	51.49%	19.87%	27.67%	52.19%	48.46%
El Camino	1968	35.11%	2.08%	54.62%	7.01%	24.80%	48.78%	29.57%
Long Beach City	3291	24.55%	6.99%	44.55%	22.88%	25.65%	43.48%	61.90%
Los Angeles Harbor	1268	16.40%	9.54%	55.05%	17.11%	31.23%	49.21%	45.19%

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
Marin (1)	551	9.98%	12.89%	56.81%	19.60%	62.43%	22.69%	37.93%
College of Marin	551	9.98%	12.89%	56.81%	19.60%	62.43%	22.69%	37.93%
Mendocino (1)	575	19.13%	7.83%	44.35%	27.30%	36.00%	47.83%	49.22%
Mendocino College	575	19.13%	7.83%	44.35%	27.30%	36.00%	47.83%	49.22%
Merced (1)	1284	20.02%	4.05%	52.80%	16.12%	21.96%	56.00%	33.10%
Merced College	1284	20.02%	4.05%	52.80%	16.12%	21.96%	56.00%	33.10%
Monterey (2)	1893	20.34%	19.28%	44.53%	14.05%	63.29%	24.99%	33.91%
Hartnell	1004	25.50%	2.79%	64.94%	4.48%	50.10%	34.66%	47.41%
Monterey Peninsula	889	14.51%	37.91%	21.48%	24.86%	78.18%	14.06%	18.67%
Napa (1)	736	26.77%	8.97%	39.40%	20.92%	39.54%	32.20%	35.87%
Napa Valley	736	26.77%	8.97%	39.40%	20.92%	39.54%	32.20%	35.87%
Orange (6)	6542	12.73%	12.58%	58.85%	15.36%	33.15%	43.90%	36.92%
Fullerton	1347	15.59%	13.73%	53.75%	16.85%	18.93%	49.96%	35.41%
Irvine Valley	731	7.39%	19.02%	50.89%	20.79%	47.33%	32.15%	48.97%
Orange Coast	1346	11.52%	15.38%	55.42%	17.53%	24.15%	52.60%	34.25%
Saddleback	582	8.93%	10.31%	62.37%	17.53%	31.62%	33.51%	42.44%
Santa Ana	1718	13.68%	7.51%	67.40%	11.18%	39.17%	44.59%	37.43%
Santiago Canyon	818	15.53%	12.59%	59.54%	11.74%	47.19%	36.06%	28.00%

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
Placer (1)	2341	22.77%	13.63%	47.54%	14.69%	19.95%	59.03%	13.80%
Sierra ³⁶	2341	22.77%	13.63%	47.54%	14.69%	19.95%	59.03%	13.80%
Plumas (1)	191	20.94%	18.85%	32.98%	25.13%	35.60%	45.03%	41.88%
Feather River	191	20.94%	18.85%	32.98%	25.13%	35.60%	45.03%	41.88%
Riverside (4)	4379	19.00%	10.78%	47.04%	19.71%	40.08%	41.63%	46.56%
College of the Desert	442	11.09%	8.60%	46.15%	32.13%	48.87%	37.56%	54.52%
Mt. San Jacinto	1352	23.37%	13.31%	47.56%	8.65%	45.78%	36.69%	40.01%
Palo Verde	208	26.92%	7.69%	51.92%	5.29%	50.00%	36.54%	39.42%
Riverside	2377	17.29%	10.01%	46.49%	24.95%	34.33%	45.65%	49.43%
Sacramento (3)	6544	20.55%	13.81%	40.53%	23.49%	35.77%	44.90%	38.55%
American River	2687	22.44%	15.48%	36.47%	24.56%	38.89%	39.30%	38.44%
Cosumnes River	2241	19.50%	13.70%	40.92%	23.43%	41.32%	41.45%	43.64%
Sacramento City College	1616	18.87%	11.20%	46.72%	21.78%	22.90%	58.97%	31.68%
San Bernardino (5)	5611	20.82%	9.27%	47.98%	20.16%	28.28%	50.85%	53.23%
Barstow	291	30.24%	26.46%	17.18%	25.09%	29.21%	52.58%	49.83%
Chaffey	2075	16.72%	9.64%	56.05%	16.43%	24.77%	51.23%	72.00%
Crafton Hills	589	25.47%	4.07%	41.94%	24.45%	27.16%	55.18%	31.41%
San Bernardino	1987	24.71%	8.10%	42.58%	22.80%	34.78%	49.32%	45.55%
Victor Valley	669	13.75%	8.67%	57.70%	17.94%	20.48%	49.63%	38.57%

³⁶ No data available

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
San Diego (8)	12705	15.73%	12.82%	46.78%	15.89%	38.08%	41.92%	36.96%
Cuyamaca	746	13.67%	16.49%	44.50%	12.47%	32.17%	40.48%	35.12%
Grossmont	2077	19.64%	19.26%	45.16%	14.44%	34.57%	46.61%	27.88%
Mira Costa	1872	7.85%	12.07%	20.67%	15.44%	56.30%	25.75%	34.40%
Palomar	1963	19.92%	12.02%	42.28%	23.08%	30.06%	51.81%	33.57%
San Diego City College	1484	13.54%	9.64%	56.94%	18.13%	33.96%	38.61%	42.39%
San Diego Mesa	1078	8.63%	16.79%	60.30%	13.17%	34.79%	39.61%	30.89%
San Diego Miramar	592	10.64%	15.37%	57.43%	15.03%	45.61%	35.64%	40.71%
Southwestern	2893	20.50%	7.92%	56.07%	13.27%	37.57%	46.53%	46.63%
San Francisco (1)	2678	11.02%	14.12%	52.58%	21.96%	52.05%	30.10%	53.47%
City College of San Francisco	2678	11.02%	14.12%	52.58%	21.96%	52.05%	30.10%	53.47%
San Joaquin (1)	3428	14.67%	5.48%	50.99%	20.97%	12.54%	61.52%	27.54%
San Joaquin Delta	3428	14.67%	5.48%	50.99%	20.97%	12.54%	61.52%	27.54%
San Luis Obispo (1)	2274	22.56%	12.62%	42.52%	16.71%	10.38%	66.40%	33.64%
Cuesta College	2274	22.56%	12.62%	42.52%	16.71%	10.38%	66.40%	33.64%
San Mateo (2)	2198	10.56%	10.78%	49.09%	28.94%	58.64%	26.84%	44.36%
Canada College	1279	10.09%	10.79%	47.46%	30.96%	64.74%	20.80%	48.48%
Skyline College	919	11.21%	10.77%	51.36%	26.12%	50.16%	35.26%	38.63%
Santa Barbara (2)	2051	17.02%	9.51%	39.01%	29.55%	27.01%	44.27%	41.15%
Allan Hancock	1482	15.79%	7.15%	37.92%	33.67%	30.23%	36.64%	50.34%
Santa Barbara City College	569	20.21%	15.64%	41.83%	18.80%	18.63%	64.15%	17.22%

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	First-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students (%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
Santa Clara (7)³⁷	7834	15.42%	12.24%	31.21%	13.29%	55.91%	30.61%	43.60%
DeAnza	1620	11.79%	15.00%	47.28%	23.77%	29.57%	60.19%	39.94%
Evergreen Valley	136	22.06%	12.50%	46.32%	19.12%	26.47%	50.00%	0.74%
Foothill	352	7.67%	22.44%	34.38%	33.52%	76.70%	33.52%	49.43%
Gavilan	605	21.82%	19.83%	35.54%	20.17%	46.94%	41.16%	52.23%
Mission	3141	13.53%	4.65%	13.79%	1.53%	84.05%	8.28%	46.86%
San Jose City	1125	22.04%	16.44%	36.62%	24.89%	35.91%	29.42%	43.91%
West Valley	855	18.13%	19.77%	50.88%	7.25%	31.23%	46.43%	36.49%
Santa Cruz (1)	1161	18.17%	11.80%	58.57%	10.68%	46.86%	36.52%	48.41%
Cabrillo	1161	18.17%	11.80%	58.57%	10.68%	46.86%	36.52%	48.41%
Shasta (1)	1283	21.75%	2.96%	41.31%	21.90%	15.74%	56.66%	30.79%
Shasta	1283	21.75%	2.96%	41.31%	21.90%	15.74%	56.66%	30.79%
Sierra (1)	2341	22.77%	13.63%	47.54%	14.69%	19.95%	59.03%	13.80%
Sierra	2341	22.77%	13.63%	47.54%	14.69%	19.95%	59.03%	13.80%
Siskiyou (1)	193	17.10%	10.36%	37.82%	13.99%	41.97%	59.07%	62.69%
College of the Siskiyous	193	17.10%	10.36%	37.82%	13.99%	41.97%	59.07%	62.69%

³⁷ Mission College information may be accounted for in the numbers for West Valley College. Evergreen Valley College offers only one child development course, included in the San Jose City College data.

County/College	Total # of Students enrolled in 2002-2003 in CD/ECE course	Fisrt-Time Students (%)	Transfer Students (%)	Continuing Students (%)	Returning Students(%)	Evening Only (%)	12.01 or more unit load (%)	2 or more CD courses (%)
Solano (1)	1859	19.85%	14.42%	40.45%	24.21%	22.38%	54.92%	26.14%
Solano	1859	19.85%	14.42%	40.45%	24.21%	22.38%	54.92%	26.14%
Sonoma (1)	2107	18.46%	7.12%	46.46%	26.63%	20.55%	48.27%	38.16%
Santa Rosa Junior College	2107	18.46%	7.12%	46.46%	26.63%	20.55%	48.27%	38.16%
Stanislaus (1)	1943	24.45%	5.04%	43.49%	24.96%	0.330932	36.75%	50.23%
Modesto Junior College	1943	24.45%	5.04%	43.49%	24.96%	33.09%	36.75%	50.23%
Tuolumne (1)	315	25.71%	4.13%	43.81%	24.44%	18.10%	54.29%	40.00%
Columbia	315	25.71%	4.13%	43.81%	24.44%	18.10%	54.29%	40.00%
Tulare (2)	2929	21.47%	5.19%	49.10%	22.87%	24.45%	55.21%	45.20%
College of the Sequoias	2090	21.91%	6.56%	46.70%	23.06%	18.66%	58.61%	40.00%
Porterville College	839	20.38%	1.79%	55.07%	22.41%	38.86%	46.72%	58.16%
Ventura (3)	3305	19.76%	3.18%	48.96%	25.54%	25.48%	46.60%	41.57%
Moorpark	1161	20.67%	4.48%	49.70%	23.34%	25.75%	49.01%	41.17%
Oxnard	1140	19.91%	2.46%	51.14%	24.65%	28.07%	43.60%	48.33%
Ventura	1004	18.53%	2.49%	45.62%	29.08%	22.21%	47.21%	34.36%
Yuba (1)	1850	22.38%	5.35%	55.08%	9.78%	37.73%	43.84%	49.08%
Yuba	1850	22.38%	5.35%	55.08%	9.78%	37.73%	43.84%	49.08%

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