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ABSTRACT

In 1991, a study was conducted to determine the extent to which the stringency of state regulations ensures high quality in child care settings and the extent to which California's child care staffing crisis can be addressed through regulatory changes. To compare child care quality under different licensing standards, the study examined findings from the Child Care Employee Project in California and the National Child Care Staffing Study (NCCSS), and data collected in two longitudinal studies of California children in community-based child care. Child care quality was defined in terms of adult-child ratios, teacher training, teacher behaviors, and activities provided for children. Quality was measured by means of the Early Childhood Environmental Rating Scale and the Arnett scale of teacher sensitivity. It was found that when child care centers met the stringent Title 5 adult-child ratios, children were more likely to be in classrooms judged to be more than adequate in quality. Teachers were most effective in these classrooms. Results also showed that California child care teachers, like their national counterparts, were poorly paid, received few benefits, worked under difficult conditions, and were likely to leave their jobs after a brief tenure. In the NCCSS sample, teachers meeting California's standards regarding educational background were more effective and provided higher quality care than did teachers who did not meet the standards. Findings suggest that lowering teacher qualifications to solve the staffing shortage would seriously compromise the quality of child care in California, and that the staffing crisis could be eased by salary enhancements and support for training. (AC)

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SOLVING CALIFORNIA'S CHILD CARE CRISIS: RESEARCH ADDRESSING REGULATIONS AND FUNDING

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and
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California Policy Seminar
University of California
1991

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Research Report

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EXECUTIVE SUMMARY

In 1990 the federal government substantially increased its commitment to services for young children by expanding several programs, including Head Start, Military Child Care, Title I-A, and tax credits. It also established a new stream of child care funding for each state through the Child Care and Development Block Grant (CCDBG).

In California, deliberations on what is best for children mirror many of the debates heard throughout the country. Despite relative agreement within the child care community about the perceived mandate to improve as well as expand services, those concerned about child care have run headlong into the state fiscal crisis. A recent approach in California's government is to focus on expanding the number of children served without expanding funds or improving services. Three years ago, in response to a similar proposal to increase ratios, the state legislature commissioned a study of California programs to assess the impact a change in ratios would have on the quality of child care services. The findings will not be available until late 1991 or early 1992.

During the past decade child care services have declined in quality. This decline is reflected in the findings of the National Child Care Staffing Study (NCCSS). The NCCSS identified two key factors that influence a center's ability to provide quality services: the adult work environment and the regulatory system. Centers that paid better salaries and hired well-trained and well-educated teachers experienced less staff turnover, and those that had lower adult-child ratios provided better services to children.

This report takes the NCCSS findings and applies them to California to help answer these underlying questions driving California child care policy debates:

- To what extent does the stringency of regulations ensure quality in child care settings?
- To what extent can the child care staffing crisis be addressed through regulatory changes rather than additional funding?

To answer these questions, we examined data on teachers and children from three sources: profiles of selected California communities collected by the Child Care Employee Project (CCEP) in 1987 and 1988, the National Child Care Staffing Study (NCCSS), and data collected as part of two longitudinal studies of California children in community-based child care. These data bases were used to compare child care quality in child care centers operating under different licensing standards.

In the research literature, child care quality is defined in terms of structure or process. Structural quality refers to aspects of child care that can be regulated, including adult-child ratios and teacher training. Process quality refers to the

behaviors of the teacher and the activities provided for the children. Structural aspects, measured by researchers, can be easily quantified and are therefore easily regulated by state agencies. Process measures of quality more closely represent the actual experiences of the children in child care. We used the two California licensing standards as measures of child care structural quality and two well-established measures to measure process quality: the Early Childhood Environmental Rating Scale and the Arnett scale of teacher sensitivity. In addition we assessed the attachment or emotional security of each child with his or her teacher.

To what extent does the stringency of regulations ensure quality in child care settings?

When child care centers met the more stringent Title 5 ratio standards, children were most likely to be in classrooms judged to be more than adequate in quality. When the number of children per adult increased, so did the percentage of children in classrooms rated as inadequate. "Inadequate" indicates care below a threshold that can ensure children's development. Based on these data, a 1:10 preschool ratio would mean that almost half of the classrooms would fall below a threshold of care that ensures positive outcomes for children.

Ratio standards also influenced the effectiveness of teaching. Teachers were best able to be effective when their classrooms met the Title 5 standards and were least able to be effective when their classrooms failed to meet Title 22 standards. When classrooms only met stringency standards of Title 22 or less, a greater proportion of children were found to exhibit less than optimal social competence.

To what extent can the child care staffing crisis be addressed through regulatory changes rather than additional funding?

The severe shortage of teachers who meet Title 5 and, in some cases, Title 22 staff requirements has led to the argument that a reduction of teacher qualifications would help to solve the severe shortage of available child care. This concept reflects an assumption that the demand for more services can be met by less stringent regulations. When we compared California child care centers to the NCCSS sample we found that California centers are comparable in turnover, wages, benefits, and working conditions to the national sample. Like their national counterparts, California child care teachers are poorly paid, receive few benefits, work under difficult conditions, and are likely to leave their jobs after a brief tenure. When we compared the effectiveness of teachers in the NCCSS meeting the Title 5 requirements, meeting the Title 22 requirements, or not meeting either requirement we found that teachers meeting Title 5 regulations performed better than those meeting Title 22 regulations, and that both groups performed better than teachers meeting neither standard. These data suggest that redefining the qualifications for teaching positions would seriously compromise the quality of care provided in California child care services.

California child care teachers work for similar salaries and benefits and under similar working conditions as do child care teachers across the country. In the national sample teachers with less extensive educational backgrounds than required

in California were less effective teachers and provided lower-quality care than teachers who met the California standards. These findings suggest that the California child care staffing crisis would be eased by salary enhancement funds and support for training.

While there is widespread agreement about the need for more high-quality child care, there is considerable disagreement about how to achieve it. Because of limited resources, serving more children is often traded for serving them well.

Historically, California has been recognized throughout the country for its model child care system. While the state's standards and services continue to be better than those found in many states, serious financial constraints threaten that tradition. These data suggest that recent weakening regulations, on top of inadequate cost-of-living adjustments over the past decade, will further erode the quality of services that children in this state receive. The infusion of funds now available through the CCDBG and other sources should be directed to shoring up the infrastructure through continued high standards, salary enhancement, and relevant training. Without this commitment, our early education system will experience a demise such as we have already witnessed in our K-12 programs.

INTRODUCTION

In 1990 the federal government substantially increased its commitment to services for young children by expanding several programs, including Head Start, Military Child Care, Title I-A, and tax credits. It also established a new stream of child care funding for each state through the Child Care and Development Block Grant (CCDBG). This infusion of dollars will reach the states in late 1991. These dollars are significant not only because they come amidst a severe fiscal crisis that has resulted in cuts of many other human services, but also because the enabling legislation recognizes the need to improve the quality of care currently available in the states.

In California, deliberations on what is best for children mirror many of the debates heard throughout the country. Despite relative agreement within the child care community about the perceived mandate to improve as well as expand services, those concerned about child care have run headlong into the state fiscal crisis. A recent approach in California's government is to focus on expanding the number of children served without expanding funds or improving services. California's 1991–92 budget has eliminated cost-of-living adjustments (COLAS) for state-funded programs and proposes increasing staffing ratios for preschool children. The Department of Finance estimates that this will save the state $19 million. It does not appear likely that much support can be mustered for increases in compensation or training for child care providers, nor is it likely CCDBG funds will be committed to programs and policies that address the staffing crisis or other quality concerns. Current budgetary decisions and policies are consistent with the decision, in effect for over eight years to provide no or insufficient cost-of-living (COLA) adjustments to state-funded child care programs. A recent study in northern Alameda County reveals that nonprofit child care programs subsidized by the state pay lower salaries and have higher turnover rates than any other type of program in the community, including for-profit centers noted for inadequate pay and poor retention. This represents a dramatic departure from a decade ago when these programs were known for their outstanding services and were considered relatively well-paying child care jobs. While subsidized programs within school and college districts continue to pay higher salaries in northern Alameda County, many of their counterparts throughout the state have closed. Contracts totaling over $5 million have been abandoned by districts unable to honor collective bargaining agreements because of diminishing funds.

The child care community has expressed deep concern about the child care budget crisis. The absence of a COLA will further burden poorly paid teachers, fueling turnover and lengthening the staffing shortage. And many consider the

proposal to save funds by changing adult-child ratios to be spurious. These changes fail to account for limitations in group size or physical accommodations that will not permit increases in ratios without violating other licensing standards. Many programs simply won't be able to accommodate the new regulations. Many providers also believe that ratio changes will further erode the quality of services. Three years ago, in response to a similar proposal to increase ratios, the state legislature commissioned a study of California programs to assess the impact a change in ratios would have on the quality of child care services. The findings, however, will not be available until late 1991 or early 1992.

The federal government's commitment of funds to improve as well as to expand services is particularly notable in light of the pressures caused by the low availability of child care. These recent federal actions also acknowledge that child care providers are severely undercompensated. For example, the Head Start reauthorization mandates 12 percent of the funds for a quality set aside, 5 percent of the total being earmarked for upgrading salaries. Several states are considering using as much as 25 percent of the CCDBG funds for quality improvements. Similarly, the Military Child Care reauthorization of 1990 established a pilot program of higher pay scales for providers with the intent of reducing turnover — as high as 300 percent turnover on some bases. The CCDBG mandates that at least 5 percent of funds be used for all or some of the following quality improvements: improved training and compensation for providers, expansion of resource and referral services, and improved licensing procedures and enforcement.

These quality-enhancement provisions reflect intense advocacy activity by the early childhood community. During the past decade this community has witnessed the continual erosion of the quality of its services, reflected dramatically in the findings of the National Child Care Staffing Study (NCCSS) (Whitebook, Howes, & Phillips, 1990). The NCCSS examined the quality of care for 227 centers located in five metropolitan areas. The majority of these centers were rated as barely adequate in quality. The average staff turnover rate was 41 percent compared to 15 percent in the previous decade. These findings are repeatedly echoed by child care advocates at public hearings and informal gatherings. Programs throughout the states report difficulty in recruiting and retaining adequately trained teachers. Interviews with teaching staff confirm the problem: They find their work satisfying and important but that poverty-level salaries make it difficult to remain on the job. Many teachers question their ability to provide quality services as budgets shrink and they are asked to care for increasing numbers of children.

The National Child Care Staffing Study (NCCSS) underscored these sentiments by identifying two key factors that influence a center's ability to provide quality services: the adult work environment and the regulatory system. Centers that paid better salaries and hired well-trained and well-educated teachers experienced less staff turnover, and those that had lower adult-child ratios provided better services to children.

This report takes the NCCSS findings and applies them to California to help

answer these underlying questions driving California child care policy debates:

- To what extent does the stringency of regulations ensure quality in child care settings?
- To what extent can the child care staffing crisis be addressed through regulatory changes rather than additional funding?

METHODOLOGY

To answer these questions, we examined data on teachers and children from three sources: profiles of selected California communities collected by the Child Care Employee Project (CCEP) in 1987 and 1988, the National Child Care Staffing Study (NCCSS), and data collected as part of two longitudinal studies of California children in community-based child care. These data bases were used to compare child care quality in child care centers operating under different licensing standards.

CCEP community surveys are completed by child care center directors at the request of community groups. CCEP supplies the survey form and compiles the data. The 1987 data were collected in Los Angeles, Alameda, Marin, and San Francisco counties. The 1988 data were collected in Stanislaus and San Mateo counties.

In 1988 the NCCSS examined 227 child care centers in five representative metropolitan areas in the United States: Atlanta, Boston, Detroit, Phoenix, and Seattle. The study was designed to explore how child care teachers — their characteristics and work environment — affect the caliber of services available to children and families. The study combined interviews with child care teachers and directors with observations of classroom and child behaviors.

In Atlanta, the NCCSS also collected data on children. We combined this data with data collected on 159 children enrolled in community child care centers in Southern California, resulting in a sample of 414 children. We measured children's attachment relationships to their teachers and their social competence. Attachment security is a child's trust in the teacher to keep her or him safe. Children who are secure with teachers are able to explore the world of toys, ideas, and peers in child care. Children's attachments to their teachers were assessed using the Waters Q-Set for attachment security (Waters & Deanne, 1985). The Q-Set is an observational tool focusing on children's behaviors indicating security. Children's social competence with peers was measured using the Howes Peer Play Scale (Howes, 1988). Before describing our analysis of these data sets, it is necessary to elaborate on the definition of child care quality used in this examination.

Defining Quality

In the research literature, child care quality is defined in terms of structure or process (Phillips, 1987). Structural quality refers to aspects of child care that can be regulated, including adult-child ratios and teacher training. Process quality refers to the behaviors of the teacher and the activities provided for the children. Structural aspects, measured by researchers, can be easily quantified and are therefore easily regulated by state agencies. But whether structural measures can act as predictors of quality is a hotly debated child care policy issue.

One problem with structural-quality measures is that they fail to fully capture children's experiences in child care. Children's experiences of child care are defined by their interactions with teachers and peers and by their daily activities. In other words, processes may be better measures of child care quality. Process measures of quality more closely represent the actual experiences of children in child care. Thus, it is not surprising that process measures are also better predictors of children's development in child care (Howes, Phillips, & Whitebook, 1990), although process quality is also more difficult to measure than structural quality.

Increasingly researchers are examining the relationship between structural and process variables. For example: How will an increase in ratios from 1:8 to 1:10 affect the staff-child interaction and other indicators of children's experience? Is there a change in ratios that can be made without compromising quality or impeding children's development?

The question of a threshold of quality child care as measured by ratios is particularly sensitive in California because California has two separate child care licensing standards governing ratios, group size, and staff qualifications. One set of standards (Title 5) is required for state-subsidized child care services. These children typically come from very low-income families, have special needs, or are at risk of abuse or neglect. The second set (Title 22) applies to all other child care centers. Table 1 lists these standards. Proponents of increasing the ratios of children to adults for state-funded programs often point to this dual set of regulations. More insight into the relationship between process and structural measures of quality, however, could actually shift the debate to lowering these ratios and raising the standard of quality for all children.

TABLE 1
CALIFORNIA CHILD CARE STANDARDS

	Title 5	Title 22
ADULT:CHILD RATIO		
Infants	1:3	1:4
Toddlers	1:4	1:6
Preschoolers	1:8	1:12
TEACHER TRAINING	24 Early Childhood Education units . 16 units of general education	12 Early Childhood Education units

Early Childhood Environmental Rating Scale

In our research we have used the most well-established measure of child care processes to rate quality: the Early Childhood Environmental Rating Scale (ECERS) (Harms & Clifford, 1980). The ECERS and its infant-toddler version (ITERS) have been widely used in child development research (Phillips, 1987). These scales comprehensively assess the day-to-day quality of care provided for children. Individual items are rated from a low of 1 to a high of 7. Inadequate care receives ratings of 1 to 2.9, barely adequate care receives ratings of 3 to 3.9, good care receives ratings of 4 to 4.9, and ratings of 5 and above are considered very good. Two subscales were derived from the ECERS and ITERS, one representing appropriate caregiving, the other developmentally appropriate activities. Appropriate caregiving captures the items pertaining to child-adult interactions, supervision, and discipline. Developmentally appropriate activity captures the items pertaining to the materials, schedule, and activities of the classroom.

Each room in a child care center received an ECERS score. Assessments were made following at least two hours of observation in a classroom. Observers received training in completing their observations and in the data bases being used; all observers reached an interobserver reliability level of at least 85 percent agreement prior to making observations.

We supplemented the ECERS ratings with an instrument specifically designed to measure teacher effectiveness. Following at least two hours of observation, each teacher was rated on the Arnett scale of teacher sensitivity (Arnett, 1989). This measure yields three scores: sensitivity (warm, attentive, and engaged); harshness (critical, threatens children, and punitive); and detachment (low levels of interaction, interest, and supervision). Interobserver reliability for this measure also exceeded 85 percent agreement.

FINDINGS

To what extent does the stringency of regulations ensure quality in child care settings?

This question was divided into two areas. First, we examined changes in the quality of care when the number of children cared for by each adult increased. Secondly, we explored the effect of increasing ratios on children's social competence, since such competence in child care is a good predictor of later success in school.

Using the sample of California and Atlanta children, we explored changes in the quality of care based on the number of children for whom an adult is responsible. We compared the percentage of children cared for in classrooms rated as good or very good with the percentage of children in classrooms rated as inadequate or barely adequate. Table 2 shows the percentage of children in care that was rated as inadequate under each standard. Chi square analysis of these variables are all significant (Howes, et al., in press).

When centers met the Title 5 ratio standards, children were most likely to be in classrooms judged to be more than adequate in quality. When the number of children per adult increased, so did the percentage of children in classrooms rated as inadequate. "Inadequate" indicates care below a threshold that can ensure children's development. Based on these data, a 1:10 preschool ratio would mean that almost half of the classrooms would fall below a threshold of care that ensures positive outcomes for children.

We made another measure of existing standards by reclassifying the NCCSS centers according to whether they met Title 5, Title 22, or no California standard, and by examining teacher effectiveness. These comparisons are found in Table 3.

Toddlers and preschoolers were most likely to encounter *developmentally appropriate activities* if they were enrolled in classrooms meeting Title 5 standards, as opposed to Title 22 or less stringent than Title 22 standards. Title 22 classrooms, however, rated better than others with less strict standards. Infants in classrooms meeting either California title standard encountered more developmentally appropriate activities than those in less stringently regulated classrooms.

The same relationship held for staff-child interactions. Title 5 classrooms were found to be superior in *appropriate caregiving* when compared with all other classrooms for toddlers and preschoolers. However, there was no difference between teachers in Title 5 and Title 22 classrooms on this measure for infants.

Teachers in classrooms meeting standards also were rated higher in teaching effectiveness than classrooms failing to meet California requirements. Teachers in classrooms meeting Title 5 standards were *less harsh* with children in each age group than those in classrooms meeting Title 22 standards, but teachers in classrooms

TABLE 2
QUALITY OF CARE PROVIDED FOR CHILDREN WITH DIFFERENT ADULT-CHILD RATIOS

	% of Children in Inadequate Care
APPROPRIATE CAREGIVING	
Infants	
Title 5	10
Title 22	45
Less stringent than Title 22	52
Toddlers	
Title 5	4
Title 22	26
Less stringent than Title 22	39
Preschoolers	
Title 5	9
1:9	12
1:10	40
Title 22	67
Less stringent than Title 22	71
DEVELOPMENTALLY APPROPRIATE ACTIVITIES	
Infants	
Title 5	7
Title 22	50
Less stringent than Title 22	46
Toddlers	
Title 5	2
Title 22	41
Less stringent than Title 22	42
Preschoolers	
Title 5	7
1:9	50
1:10	50
Title 22	55
Less stringent than Title 22	67

TABLE 3
RECLASSIFICATION OF NCCSS CENTERS
ACCORDING TO CALIFORNIA RATIO STANDARDS

	Title 5	Title 22	Less Stringent Than Title 22	F (Scheffe)
APPROPRIATE CAREGIVING				
Infant	4.8	4 5	3.6	8.70** (5=22>less)
Toddler	4.8	3.6	3.8	3.16** (5>22=less)
Preschool	4.7	4.3	3.9	8.20** (5>22>less)
DEVELOPMENTALLY APPROPRIATE ACTIVITIES				
Infant	3.6	3.4	2.8	5.48** (5=22>less)
Toddler	4.0	3.6	3.3	2.63* (5>22=less)
Preschool	3.9	3.4	2.9	9.06 (5>22>less)
TEACHER SENSITIVITY				
Infant	29.6	28.2	24.6	12.67** (5=22>less)
Toddler	28.8	26.7	23.2	12.78** (5=22>less)
Preschool	29.5	27.2	27.2	5.05** (5=22>less)
TEACHER HARSHNESS				
Infant	13.5	15.3	15.4	3.07* (5<22=less)
Toddler	14.9	17.2	17.4	5.90** (5<22=less)
Preschool	14.3	15.1	15.6	3.74* (5<22=less)
TEACHER DETACHMENT				
Infant	6.0	6.0	6.9	4.09* (5=22<less)
Toddler	6.2	7.0	5.8	3.87* (5<22=less)
Preschool	6.1	6.2	6.6	1.0

* p<.05
** p<.01

meeting Title 22 standards interacted less harshly than their colleagues in classrooms falling below either California standard.

Teachers in classrooms meeting either Title 5 or Title 22 standards were *more sensitive* with children of all ages than teachers in classrooms not meeting either California standard. Teachers were *less detached* in their interactions with toddlers if their classrooms met Title 5 standards and with infants if their classroom met either California standard. No differences were found on this measure for teachers of preschoolers.

Thus, *ratio standards influenced the effectiveness of teaching.* Teachers were best able to be effective when their classrooms met the Title 5 standards and least able to be effective when their classrooms failed to meet Title 22 standards.

The data from the combined sample of California and Atlanta children were also used to examine whether increasing the adult-child ratio would harm children. To do this, we calculated the percentage of children rated as *insecurely attached* to their teachers when the ratio exceeded California's Title 5 or Title 22 standards. See Table 4. When classrooms only met stringency standards of Title 22 or less, a greater proportion of children were found to exhibit less than optimal social competence.

TABLE 4
RATIO STANDARDS AND CHILDREN'S SOCIAL COMPETENCE

	% of Children in Classrooms Meeting the Standard and Insecurely Attached	% of Children in Classrooms Meeting the Standard and Below the Median in Social Competence with Peers
Infants		
Title 5	10	30
Title 22	43	40
Less stringent	73	67
Toddlers		
Title 5	33	24
Title 22	48	71
Less stringent	68	77
Preschoolers		
Title 5	41	39
1:9	63	59
1:10	65	63
Title 22	67	78
Less stringent	71	85

Secure attachments to teachers and social competence with peers are potentially beneficial aspects of child care. Particularly when child-parent relationships are less than optimal, teachers can serve as alternative models and attachment figures. Likewise, peers can provide emotional support and help children acquire social skills. Our data suggest that these benefits are less likely to occur as adult-child ratios are increased. The jump is particularly notable for preschoolers when the ratio increases from 1:8 to 1:9 or 1:10.

To what extent can the child care staffing crisis be addressed through regulatory changes rather than additional funding?

The severe shortage of teachers who meet Title 5 and, in some cases, Title 22 staff requirements has led to the argument that a reduction of teacher qualifications would help to solve the problem of a severe lack of available child care. This concept reflects an assumption that the demand for more services can be met by less stringent regulations. To address this question, we first examined to what extent California teachers' work environments mirror the national profile of child care teachers, since if California and national trends were similar, conclusions made nationally would also apply to California. First, we compared California survey data to the NCCSS, then explored the consequences of redefining training qualifications. To do this we reclassified NCCSS teachers as if they met California standards.

In comparing characteristics of turnover and work environments in California with the national sample, we focused on the 25 child care centers in the national sample that only hired teachers whose level of training and education met California's less stringent regulations (Title 22). As Table 5 indicated, California centers are comparable in turnover, wages, benefits, and working conditions to the national sample. Like their national counterparts, California child care teachers are poorly paid, receive few benefits, work under difficult conditions, and are likely to leave their jobs after a brief tenure.

In comparing the quality of care provided by teachers who meet different qualifications, we classified the teachers (n=1309) in the NCCSS by the California state licensing regulations. Teachers were classified as meeting the Title 5 requirements, meeting the Title 22 requirements, or not meeting either requirement. We then compared the quality of care provided by these three groups of teachers. These comparisons are shown in Table 6. Overall, teachers meeting Title 5 regulations performed better than those meeting Title 22 regulations, and both groups performed better than teachers meeting neither standard. Specifically, teachers provided the most appropriate caregiving to infants and toddlers if they met Title 5 qualifications and better caregiving to preschoolers if they met either California standard. Teachers provided the *most developmentally appropriate activities* to all ages of children if they met Title 5 qualifications. Those meeting Title 22 qualifications provided *more developmentally appropriate activities* than teachers meeting neither set of standards. Teachers meeting Title 5 or Title 22 standards were *more sensitive, less harsh, and less detached* than teachers failing to meet either set of standards.

TABLE 5
CALIFORNIA COMPARISONS WITH COMPARABLE STAFF IN THE NATIONAL DATA BASE

	California 1987[a]	California 1988[b]	NCCSS 1988[c]
TURNOVER (annual)			
Teachers	35%	31%	34%
Assistants	46%	45%	44%
WAGES ($ per hour)			
Teachers	$6.12	$6.80	$6.75
Assistants	$4.53	$5.13	$4.83
BENEFITS (% teachers having)			
Health			
full	32%	30%	46%
partial	24%	24%	26%
Paid sick days	51%	67%	63%
Paid holidays	37%	81%	71%
Paid vacation	31%	77%	67%
Retirement plan	18%	19%	17%
Life insurance	21%	29%	23%
Parental leave	12%	14%	10%
Reduced fee child care	59%	60%	62%
WORKING CONDITIONS (% teachers having)			
Paid breaks	85%	81%	51%
Paid lunch break	45%	36%	29%
Paid prep. time	65%	73%	66%
Written job description	89%	91%	83%
Formal grievance procedure	58%	68%	46%
Written contract	52%	82%	63%
COLA	58%	65%	47%
Merit increases	56%	58%	48%
Written salary schedule	40%	51%	41%

Notes

[a] n=101 centers (Los Angeles, 36; Northern Alameda, 13; Southern Alameda, 16; Marin, 14; San Francisco, 22). 43% nonprofit nonsubsidized; 14% nonprofit subsidized; 6% school district; 37% private for profit.

[b] n=108 centers (Stanislaus county, 50; San Mateo, 58) 43% nonprofit nonsubsidized; 13% nonprofit subsidized; 6% school district; 38% private for profit.

[c] n=25 centers selected to correspond to California minimum licensing standards for teacher training.

TABLE 6
RECLASSIFICATION OF NCCSS TEACHERS ACCORDING TO CALIFORNIA TRAINING AND EDUCATION STANDARDS

	Title 5	Title 22	Less Stringent	F (Scheffe)
APPROPRIATE CAREGIVING				
Infant and toddler	5.0	4.5	4.0	16.38** (5>22>less)
Preschool	4.7	4.7	4.3	11.97** (5=22>less)
DEVELOPMENTALLY APPROPRIATE ACTIVITIES				
Infant and toddler	4.1	3.8	3.3	14.40** (5>22>less)
Preschool	4.0	3.8	3.4	16.01** (5>22>less)
TEACHER SENSITIVITY	31.0	30.2	27.3	31.53** (5=22>less)
TEACHER HARSHNESS	14.5	14.8	15.1	3.64* (5<less)
TEACHER DETACHMENT	5.9	5.9	6.5	5.65* (5=22<less)

* $p<.05$
** $p<.01$

These data suggest that *redefining the qualifications for teaching positions would seriously compromise the quality of care provided in California child care services.*

In the national sample (NCCSS) teachers were most likely to leave their jobs if their pay was low (Whitebook, 1990). Although the nature of our California data does not permit a similar analysis, nothing in our comparison suggests that the relation between salaries and turnover rates would be dissimilar in the California sample. Teacher turnover in several studies is linked to poor child outcomes (Howes, 1988b; Whitebook et al., 1990).

Likewise, in the national sample (NCCSS) *teacher salaries were the best single predictor of classroom ECERS scores.* Again, the California survey data are not appropriate for a similar analysis. However, the similarity of the teacher profile in California and the national sample suggests that similar relations would be found. Proposals to limit COLAs and maintain low salaries, therefore, would be likely to further diminish the quality of services available to children.

California child care teachers work for similar salaries and benefits and under similar working conditions as do child care teachers across the country. In the national sample teachers with less extensive educational backgrounds than required in California were less effective teachers and provided lower-quality care than teachers who met the California standards. These findings suggest that *the California child care staffing crisis would be eased by salary enhancement funds and support for training.*

CONCLUSIONS

While there is widespread agreement about the need for more high-quality child care, there is considerable disagreement about how to achieve it. Because of limited resources, serving more children is often traded for serving them well.

Historically, California has been recognized throughout the country for its model child care system. While the state's standards and services continue to be better than those found in many states, serious financial constraints threaten that tradition. These data suggest that recent weakening regulations, on top of inadequate cost-of-living adjustments over the past decade, will further erode the quality of services that children in this state receive. The infusion of funds now available through the CCDBG and other sources should be directed to shoring up the infrastructure through continued high standards, salary enhancement, and relevant training. Without this commitment, our early education system will experience a demise such as we have already witnessed in our K-12 programs.

REFERENCES

Arnett, J. (1989). Caregivers in day care centers: Does training matter? *Journal of Applied Developmental Psychology, 10:* 541–552.

Child Care Employee Project. (1990). The northern Alameda County child care staff salary and benefits survey. Oakland, Calif.: Child Care Employee Project.

Harms, T., & R. Clifford. (1980). *Early Childhood Environmental Rating Scale.* New York: Teachers College Press, Columbia University.

Harms, T., & R. Clifford. (1986). *Infant-Toddler Environmental Rating Scale.* Unpublished document. Chapel Hill: University of North Carolina.

Howes, C. (1988a). Peer interaction of young children. *Monographs of the Society for Research in Child Development, 53*(1), Serial No. 217.

Howes, C. (1988b). Relations between early child care and schooling. *Developmental Psychology, 24,* 53–57.

Howes, C., D. A. Phillips, & M. Whitebook. (In press). Thresholds of quality. *Child Development.*

Phillips, D. A., ed. (1987). Quality in child care: What does research tell us? *Monograph of the National Association for the Education of Young Children.* Washington, DC: NAEYC.

Waters, E., & K. E. Deanne. (1985). Defining and assessing individual differences in attachment relationships: Q-methodology and the organization of behavior in infancy and early childhood. In I. Bretherton & E. Waters, eds., *Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, 50*(1–2), Serial No. 209, 41–65.

Whitebook, M., C. Howes, & D. A. Phillips. (1990). *Who cares: Child care teachers and the quality of care in America.* Final Report of the National Child Care Staffing Study. Oakland, Calif.: Child Care Employee Project.