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Health, Education and Human Services Division

B-280544

July 31, 1998

The Honorable Sander Levin  
Ranking Minority Member  
Subcommittee on Human Resources  
Committee on Ways and Means  
House of Representatives

The Honorable Fortney Pete Stark  
Ranking Minority Member  
Subcommittee on Health  
Committee on Ways and Means  
House of Representatives

The Honorable Matthew Martinez  
The Honorable George Miller  
House of Representatives

Subject: Child Care: Use of Standards to Ensure High Quality Care

In recent decades, child care has grown in importance as a means of helping working families secure and maintain their economic self-sufficiency. The number of working women with children, especially those with children under 6 years of age, has increased dramatically. Of women with children under the age of 6, about 39 percent were in the labor force in 1975; in March 1997, 65 percent were in the labor force. To care for these 10.3 million children during working hours, parents use different types of child care arrangements; of these, child care centers provide care for the largest proportion of children with working mothers—almost 30 percent.<sup>1</sup> Recognizing the importance of child care

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<sup>1</sup>Approximately 25 percent of children are cared for by relatives other than their parents, either in the relative's home or the child's; 24 percent are cared for by their parents; and 5 percent are cared for by nonrelatives in the child's home. See Census Bureau, "Who's Minding Our Preschoolers? Fall 1994 Update," Current Population Reports (Washington, D.C.: Department of Commerce, Nov. 1997).

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to working families, both the Administration and the Congress have introduced and are considering various child care proposals affecting the federal role in child care, including the issue of child care quality.

Research shows that high quality child care can have a positive impact on the social, emotional, cognitive, and physical development of all children, particularly those who are considered at risk for school failure. While definitions of high quality care are not precise, research and best professional practices have shown that there are identifiable features of child care settings that are associated with high quality care. Organizations such as the National Association for the Education of Young Children (NAEYC)<sup>2</sup> and the Maternal and Child Health Bureau (MCHB)<sup>3</sup> have translated these features into standards. These standards, which are very specific and embody a high level of care, were developed as tools that could be used by individual programs, states, and localities to help assess the quality of specific child care settings and structure the delivery of high quality child care services.

State and local governments are responsible for the oversight of child care providers that operate in their state. Each state establishes its own child care standards, determining the areas that the standards will cover and the specific measures against which provider compliance will be determined. While child care providers are required to meet a state's standards to legally operate in that state, the standards established by the NAEYC and MCHB are voluntary, not mandatory.<sup>4</sup>

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<sup>2</sup>NAEYC is the nation's largest association of early childhood professionals. Its purpose is to improve professional practice in early childhood care and education and increase public understanding of high quality early childhood programs. It also accredits, through a voluntary system, early childhood education centers and schools.

<sup>3</sup>MCHB is part of the Public Health Service, Department of Health and Human Services (HHS). It is responsible for promoting and improving the health of mothers and children through the programs that it oversees.

<sup>4</sup>States and localities exempt some providers from meeting standards, typically family child care homes—those who provide child care in their homes and serve a small number of children. Centers, on the other hand, are most often required to comply with state and local standards. However, some centers may also be exempted, such as those offering only part-day services or those affiliated with a religious or government entity.

The federal role is extremely limited, requiring child care standards in only a few federal programs, including Head Start and the Child Care and Development Block Grant (CCDBG).<sup>5</sup> Although the federal role is limited, standards for child care providers are considered an important factor for ensuring child care quality, particularly for child care centers, which care for a large percentage of children. Therefore, to help the Congress in its deliberations of various child care proposals, you asked us to (1) identify the key child care standards for centers that are critical in helping ensure high quality child care, (2) examine the extent to which states incorporate these standards into their own standards,<sup>6</sup> and (3) discuss other important issues that relate to child care standards and their effect on quality. To identify key child care standards, we analyzed numerous studies and interviewed experts, researchers, and federal and state officials who are knowledgeable about child care standards. Because we needed specific measures for these standards with which to compare state standards, we used the National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs (1992) (NHSPS), developed by MCHB, and the Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs (1991), developed by NAEYC. We used these sources because they are nationally recognized standards for providing high quality care to children.

We used data from two sources to review state standards for child care centers: the National Resource Center for Health and Safety in Child Care (NRC) at the University of Colorado and the Center for Career Development in Early Care and Education at Wheelock College. We used NRC's database, which contains child care standards for 50 states and the District of Columbia,<sup>7</sup>

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<sup>5</sup>Head Start provides child care and comprehensive health and social services to children ages 3 to 5 years and their families. Head Start programs across the United States must comply with performance standards established by HHS. CCDBG provides federal funds to states primarily to subsidize child care costs for qualified parents and their families. It requires states to have standards in certain areas, such as prevention and control of infectious diseases, that providers must comply with if they serve children subsidized with CCDBG funds. However, the law does not dictate to states the specific content or stringency of the standard.

<sup>6</sup>Some states allow their local governments to develop additional child care standards that providers in the locality must meet. This report, however, focuses on state standards.

<sup>7</sup>For purposes of this report, we consider the District of Columbia as a state.

to examine state standards for safety and health and caregiver education and training. The database, which is accessible through the NRC's website, is updated regularly through contacts with state licensing offices. In addition, we verified with state licensing directors that we had extracted from the database all relevant safety and health standards for their state. We used data from Wheelock College to look at state standards for child-to-staff ratios and group size. Wheelock obtains its data, which was updated in March 1998, through the NRC database and contacts with state licensing offices. We did not independently verify the accuracy of the ratio and group size data; however, we did compare, for a small sample of states, the Wheelock data with the data contained in the NRC database to assess its accuracy.

We conducted our work in accordance with generally accepted government auditing standards between April and July 1998.

### STANDARDS THAT ARE KEY TO ENSURING HIGH QUALITY CHILD CARE

From our analysis, a clear consensus emerges about which standards appear to be good predictors of high quality child care.<sup>8</sup> These standards focus on caregiver education and training, child-to-staff ratios, group sizes, and safety and health.

#### Caregiver Education and Training

Almost all of the experts we contacted considered caregiver education and training to be one of the most critical areas for ensuring and improving the quality of child care. Specifically, research shows that effective education and training related to child development is associated with more caregiver interaction with the children and with task persistence and cooperation among children.<sup>9</sup> Table 1 outlines NAEYC's standards for caregiver education and training for director, master teacher, and teacher.

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<sup>8</sup>Standards for quality care cover two dimensions—interactive and structural. Interactive dimensions focus on the child's experiences during the day, mostly focusing on the interactions between the caregiver and the child. Structural dimensions focus on tangible features of the setting's environment, such as child-to-staff ratios. This report focuses only on the structural dimensions of quality.

<sup>9</sup>National Research Council, Who Cares for America's Children? (Washington, D.C.: National Academy Press, 1990), p. 89.

**Table 1: NAEYC's Education and Training Standards for Director, Master Teacher, and Teacher Levels**

Caregiver level	Standard
Director	Directors must have at least a bachelor's degree in early childhood education (ECE) or child development (CD); 3 years full-time teaching experience with young children or a graduate degree in ECE or CD; and training or experience related to program administration.
Master teacher <sup>a</sup>	Same requirements as the director, except training or experience related to program administration is not required.
Teacher	At least a Child Development Associate's Credential (CDA) <sup>b</sup> or an associate degree in ECE or CD.

<sup>a</sup>In a small program, a master teacher is the lead teacher in an individual classroom. In a larger program, a master teacher directs the educational component of the entire program.

<sup>b</sup>A CDA is a nationally recognized credential awarded to individuals who work with children from birth to 5 years of age. The credential requires an individual to have a high school degree, complete 120 hours of coursework in child development, and have 480 hours of experience working with children in a center or family child care home setting. The individual is then evaluated as to whether or not he or she has achieved the competency standards required by the credential.

Source: Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs (1991)

#### Child-to-Staff Ratios and Group Sizes

Child-to-staff ratios measure the number of children per caregiver in a given class; group size is the number of children assigned to a team of caregivers for a given class. Research shows that low ratios and small group sizes are important for facilitating positive interactions between staff and children, such as sensitive and attentive responses to children's needs. They also appear to

be important for cognitive development, such as language skills. While group size appears to have more consistent effects on all children under 5 years old, child-to-staff ratios appear to be especially important in the care of infants and toddlers—typically those between birth and 2 years old.<sup>10</sup> For example, researchers have found that higher ratios—more children per caregiver—for infants and toddlers are associated with children displaying more distress and apathy and with situations exposing children to more potential danger.<sup>11</sup> Table 3 shows the maximum ratios and group sizes outlined in NAEYC's standards.

Table 3: NAEYC Standards for Maximum Ratio and Group Sizes

Age of child	Child-to-staff ratios	Group sizes
6 weeks	4:1	8
9 months	4:1	8
18 months	5:1	12
27 months	6:1	12
3 years	10:1	20
4 years	10:1	20
5 years	10:1	20

Note: Figures in this table are the maximum ratios and group sizes allowed by the NAEYC standards. NAEYC child-to-staff ratios and group size standards provide a range of acceptable ratios and group sizes, depending on other factors, such as the program's curriculum and qualifications of the teaching staff.

Source: Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs (1991)

<sup>10</sup>National Research Council, Who Cares for America's Children?, pp. 87, 89.

<sup>11</sup>National Research Council, Who Cares for America's Children?, p. 88

Safety and Health Standards

Safety and health standards relate to injury and disease prevention, health promotion, and environmental safety. The experts we spoke with cited most often playground equipment, specifically surface coverings and pinch and crush points; hand washing by staff and children; sanitation of toys and surfaces; and square footage, both indoor and outdoor, as critical areas for ensuring quality care.<sup>12</sup> Table 4 provides NHSPS' safety and health standards for these critical areas.

Table 4: National Health and Safety Performance Standards: Sanitation, Hand Washing, Playground Equipment, and Square Footage

Area	Standard
<b>Playground equipment</b>	
Pinch and crush points <sup>a</sup>	There shall be no pinch, crush, or shear points on or underneath such equipment that would be accessible by children.
Surfaces	All pieces of playground equipment shall be surrounded by a resilient surface (for example, fine, loose sand, wood chips, wood mulch) of an acceptable depth (9 inches) or by rubber mats manufactured for such use and consistent with the guidelines of the Consumer Product Safety Commission.

<sup>12</sup>Experts identified and discussed many other standards that they thought were critical, such as immunizations; however, all of the standards mentioned could not be included in our study given our time constraints. Hence, the safety and health standards on which this study focuses should be considered more as illustrations of the types of critical standards in the health and safety area rather than the definitive list of the most critical standards.

<b>Hand washing</b>	Staff and children shall wash their hands at least at the following times and whenever hands are contaminated with body fluids: (a) before food preparation, handling, or serving; (b) after toileting or changing diapers; (c) after assisting a child with toilet use; (d) before handling food; (e) before any food service activity (including setting the table); (f) before and after eating meals or snacks; and (g) after handling pets and other animals.
<b>Sanitation</b>	
<b>Toys</b>	All frequently touched toys in rooms in which infants and toddlers are cared for shall be cleaned and disinfected daily.
<b>Surfaces</b>	Indoor environmental surfaces associated with children's activities, such as table tops, shall be cleaned and disinfected when they are soiled or at least once weekly.
<b>Square footage</b>	
<b>Indoor</b>	The designated area for children's activities shall contain a minimum of 35 square feet per child.
<b>Outdoor</b>	The playground shall comprise a minimum of 75 square feet for each child using the playground at any one time.

\*Pinch and crush points are exposed joints or parts of playground equipment that could, if not designed or maintained properly, crush or severely injure a child's body when the equipment is being operated.

STATE STANDARDS REFLECT NAEYC AND NHSPS  
STANDARDS IN SOME AREAS BUT NOT OTHERS

Except for group size, all states have standards in the key areas identified through our analysis. However, the extent to which state standards reflected the standards set by NAEYC and NHSPS varied.<sup>13</sup> For example, we found that only two states had standards for caregiver education and training that matched the NAEYC standard. Conversely, many of the states' standards for child-to-staff ratios mirrored NAEYC's—particularly for the youngest age groups. In the safety and health areas, state standards more often incorporated NHSPS standards for indoor and outdoor square footage than for the other safety and health areas that we examined.

Caregiver Education and Training

We examined state standards regarding training<sup>14</sup> for three different levels of staff: center directors, master teachers,<sup>15</sup> and teachers. While caregiver education and training is considered one of the most critical areas for child care standards by both the literature and the experts we contacted, only two states incorporate NAEYC standards in this area—and only for teachers. Typically, state standards regarding caregiver education and training tend to require significantly fewer years of education than the standards set by NAEYC.<sup>16</sup> For example, a number of states required teachers to have a high

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<sup>13</sup>We used the standards outlined in NHSPS to examine states' safety and health standards because these areas were the primary focus of NHSPS. Further, NAEYC's safety and health standards refer to NHSPS for specific guidance. The NAEYC standards focus more on child-to-staff ratios, group sizes, and caregiver education and training; hence, we used NAEYC standards when examining state standards in these areas.

<sup>14</sup>We only reviewed education and training requirements for employment, usually referred to as preservice requirements.

<sup>15</sup>Only 12 states have a category for master teacher in their caregiver qualification standards.

<sup>16</sup>State standards for caregiver education and training outlined various combinations of education and training that would qualify a candidate for a position; some of those combinations mirrored NAEYC standards. However, for our analysis we used the state standard that outlined the minimum qualifications required by the state for a candidate to be considered for a

school diploma and some college credits in early childhood education; NAEYC standards require a CDA and experience. We also found similar differences between state standards and NAEYC standards for director qualifications.

#### Child-to-Staff Ratios and Group Sizes

Overall, many state standards mirror the child-to-staff ratios set forth in NAEYC standards. As table 5 shows, child care standards in over half the states stipulated ratios that were the same as the NAEYC standard in younger age groups—6 weeks through 18 months; however, fewer states incorporated these standards at older age groups. In states that did not incorporate NAEYC standards for younger age groups, the range of ratios was small. For example, for children 9 months of age, the state standards for child-to-staff ratios ranged between 3 to 1 and 6 to 1. On the other hand, a wider range of ratios were reflected in state standards for children 4 years of age, ranging between 8 to 1 and 20 to 1.

Table 5: Number of States That Follow NAEYC Ratio Standards

Age of child	NAEYC standard	States following NAEYC standard	Range for ratios, all states
6 weeks	4:1	33	3:1 to 6:1
9 months	4:1	32	3:1 to 6:1
18 months	5:1	26	3:1 to 9:1
27 months	6:1	20	4:1 to 12:1
3 years	10:1	31	7:1 to 15:1
4 years	10:1	18	8:1 to 20:1
5 years	10:1	9	9:1 to 25:1

While group size was identified as a key standard, we found that all states do not have standards for group size or only have group size standards for certain ages of children. Thirty-two states have state standards stipulating group size for children ages 6 weeks through 18 months, 31 states stipulate group size for

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specific position.

children 27 months of age, and 29 states stipulate group size for ages 3 to 5 years of age.

For those that have group size standards, fewer states incorporated NAEYC standards for group size than for ratios, although the number of states that did incorporate these standards was fairly consistent across all age groups. (See table 6.) Unlike some of the ratio standards, the state standards for group size did not cluster around the NAEYC standard but reflected a wide range for all age groups.

**Table 6: Number of States That Follow NAEYC Group Size Standards**

<b>Age of child</b>	<b>NAEYC standard</b>	<b>States following NAEYC standard</b>	<b>Range for group size, all states</b>
6 weeks	8	18	6 to 20
9 months	8	17	6 to 20
18 months	12	16	8 to 20
27 months	12	11	8 to 25
3 years	20	19	12 to 30
4 years	20	16	16 to 36
5 years	20	12	18 to 40

### Safety and Health Standards

In the safety and health area, we examined state standards for playground equipment, specifically pinch and crush points and surface coverings; hand washing; sanitation of surfaces and toys for infants and toddlers; and indoor and outdoor square footage. State standards more often parallel NHSPS for indoor and outdoor square footage than for the other standards. (See table 7.) Of the seven NHSPS health and safety standards we examined, state standards, on average, followed approximately two of the seven.

Table 7: Number of States Following NHSPS Safety and Health Standards

<b>Standard</b>	<b>States</b>
<b>Playground equipment</b>	
Pinch and crush points	10
Equipment surfaces	8
<b>Hand washing</b>	9
<b>Sanitation</b>	
Toys	14
Surfaces	10
<b>Square footage</b>	
Indoor	43
Outdoor	29

We found that all states had standards in the safety and health areas identified as critical, but few states had standards as specific as NHSPS standards. In looking at state standards for surface coverings under playground equipment, for example, a number of state standards either did not specify the depth needed for the covering or the depth required by the state was less than what the NHSPS standard outlined. And while all states had standards requiring hand washing, the standard either did not apply to both children and staff or did not outline key times when hand washing should occur, like after handling pets or after eating. One expert stated that the specificity included in NHSPS was intentional and is important. It reflects what is known from the research about preventing injury and also helps prevent ambiguity in the standard itself.

#### OTHER KEY ISSUES THAT AFFECT QUALITY

We focused our work on identifying standards that help measure structural dimensions of quality—that is, tangible features of a child care setting, such as group size. However, two other issues were identified by the literature and the experts we contacted that are related to interactive dimensions of quality: staff turnover (that is, how many staff left a facility within a year) and compensation of caregivers. While state standards typically do not cover interactive dimensions of quality, the issues of turnover and wages are considered by

experts and researchers to be critical in the quality of child care, as these issues affect interactions between the child and the caregiver.

### Caregiver Turnover

Research shows that children, especially very young children, need enduring and consistent relationships with a caregiver. Studies show that frequent changes in caregiver arrangements have been found to adversely affect children's attachments to their mothers and lower the level of the complexity of their play.<sup>17</sup> Yet a recent study has shown that a significant number of teaching staff at child care centers leave during a given year. For example, 27 percent of child care teachers and 39 percent of assistant teachers left their jobs during 1997.<sup>18</sup> During this same time period, one-fifth of the 158 centers studied reported losing half or more of their teaching staff.<sup>19</sup>

### Caregiver Wages

Experts believe that the problem of caregiver turnover is tied directly to the lack of adequate compensation for child care teachers. One study found that in 1997, teachers at child care centers earned between \$13,000 and \$19,000 per year; teaching assistants earned wages between \$10,000 and \$12,500 per year,<sup>20</sup> or just below the poverty level for a family of three in 1997.<sup>21</sup> Furthermore, the same study found that less than a quarter of the child care centers that it sampled offered fully paid health coverage to their teaching staff.<sup>22</sup> Inadequate compensation is also believed to complicate problems associated with requiring higher levels of training, since such training does not help a caregiver obtain higher wages.

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<sup>17</sup>National Research Council, Who Cares for America's Children?, pp. 91-92.

<sup>18</sup>M. Whitebook and others, Worthy Work, Unlivable Wages: The National Child Care Staffing Study, 1988-1997 (Washington, D.C.: Center for the Child Care Workforce, 1998), p.8.

<sup>19</sup>M. Whitebook and others, Worthy Work, Unlivable Wages, p.8.

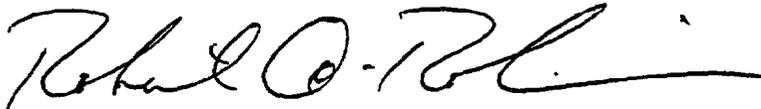
<sup>20</sup>M. Whitebook and others, Worthy Work, Unlivable Wages, p.7.

<sup>21</sup>The poverty line for a family of three in 1997 was \$13,330 per year.

<sup>22</sup>M. Whitebook and others, Worthy Work, Unlivable Wages, p.8.

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*for*  
Mark V. Nadel  
Associate Director  
Income Security Issues

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