"The Learning Never Stops": Lessons from Military Child Development Centers for Teacher Professional Development Policy

Debra J. Ackerman
National Institute for Early Education Research
Rutgers University Graduate School of Education

Abstract

High-quality early care and education (ECE) relies on teacher training. However, state policies require that the ECE workforce attain only minimal preservice credentials, and the field needs more information about inservice professional development models that might effectively train teachers, no matter what their prior experience or education level. With the aim of addressing this policy context, this paper reports on the professional development provided to caregivers in the U.S. military's child development centers. The military model utilizes both a "one-size-fits-all" and constructivist approach and comprises four distinct phases. Each phase is provided or coordinated by an on-site Training and Curriculum Specialist and takes place within a broader context of support. By describing the components contributing to the military model, this paper highlights the many interrelated inputs that may be essential aspects of an ECE teacher professional development system, thus also offering lessons for policy makers who wish to upgrade professional development policies as a means for improving ECE program quality.

Introduction

Policy makers are increasingly recognizing the benefits of high-quality early care and education (ECE) for young children (Barnett, 2002). However, these benefits do not accrue solely by opening an ECE facility and meeting state licensure requirements. Attention must also be paid to program quality, which relies on components such as the number of children in a classroom, the staff-child ratio, and the kinds of experiences that children have within classrooms on a daily basis (Cryer, 1999). One of the most crucial quality variables is teacher education and training (Bowman, Donovan, & Burns, 2001).

At present, creating and sustaining a well-trained ECE workforce can be a difficult endeavor because most states require that teachers in privately funded centers attain only minimal preservice training (Ackerman, 2004). Inservice training is therefore critical for improving teachers' knowledge and practice, but the types of training that ECE teachers commonly access do not necessarily reflect what we know about effective professional development (Hyson, 2001). More information is also needed about inservice professional development models that can accommodate teachers no matter what their previous level of experience or education or current work context. The need for such information is particularly urgent given that states are increasingly relying on ECE to improve children's outcomes, but the quality of most programs is mediocre (Peisner-Feinberg et al., 1999). The lack of a significant research base in this area also results in little guidance for policy makers who seek to upgrade professional development policies as a means for improving ECE program quality.

The U.S. military employs a training system for caregivers in its child development centers (CDCs) that might provide useful lessons for addressing this policy context. Yet, despite being implemented in over 400 CDCs throughout the world—93% of which are accredited by the National Association for the Education of Young Children (NAEYC) (Jan Witte, Office of Children and Youth, personal communication, July 24, 2006)—the specifics of the system are not widely known. The purpose of this paper is to report the results of a study focusing on the military training model and, in so doing, inform early childhood stakeholders and policy makers about the tangible and contextual aspects of a professional development system used in settings with a reputation for quality. Two questions guided this investigation: (1) What kinds of professional development are offered to caregivers in the military's CDC training model? (2) What contextual factors and policies support this model? To set the stage for this discussion, I briefly review the

characteristics of effective professional development and the constraints that the ECE field faces in accessing it.

Issues in the Professional Development of the ECE Workforce

Teacher education and training are key components of ECE quality. Various studies suggest that a concentration in college-level, early childhood coursework is positively correlated with teachers' beliefs regarding developmentally appropriate practice, more-appropriate practices, and higher-quality classrooms (Burchinal, Cryer, Clifford, & Howes, 2002; McMullen, 1998, 1999; Vartuli, 1999). However, most states do not require that teachers in privately funded ECE centers undergo any preservice training, much less have a bachelor's degree (BA) in early childhood (Ackerman, 2004). The minimal wages in the field also make it difficult for the workforce to afford coursework leading to a college degree and provide little incentive to improve one's credentials (Ackerman, 2006).

Inservice, noncredit professional development also has the potential to improve the skills and knowledge of the ECE workforce (Epstein, 1993; Howes, James, & Ritchie, 2003). Yet, while state policies require that teachers attain specific amounts of inservice training (Ackerman, 2004), merely participating in any activity labeled as "professional development" may not lead to improved knowledge or practice. Those new to the field might first need access to training that provides basic knowledge of standards and expectations when teaching and caring for young children (Hamilton, 1994; Jones, 1993). Whether teachers are new or more experienced, teachers' professional development should be situated within their daily work, rather than being a top-down mandate with little relevancy to their current needs. Training opportunities should also be linked to each other and provide opportunities for continued learning through ongoing conversations and coaching (Bowman et al., 2001; Burts & Buchanan, 1998; Carter & Curtis, 1994).

Finding professional development that meets these criteria is not easy. Differing preservice requirements have resulted in a workforce with a variety of credentials and experience (Saluja, Early, & Clifford, 2002). ECE programs themselves tend to operate in isolation from each other and serve children of varying ages, skills, and socioeconomic and ethnic backgrounds (Gallagher, Clifford, & Maxwell, 2004). In addition, the types of training commonly accessed by the ECE workforce tend to be one-shot, disconnected workshops (Epstein, 1993; Gable & Hunting, 1999; Hyson, 2001). Because most training programs are designed and offered by organizations outside of where ECE teachers work (Helburn & Bergmann, 2002; Lobman, Ryan, McLaughlin, & Ackerman, 2004), they may not offer ongoing, site-based feedback.

Effective professional development also occurs within a supportive organizational milieu. Schoolwide policies and conditions should support both staff developers and teachers with time, money, and a culture conducive to ongoing learning (Knapp, 2004). In reality, teachers within the same ECE center might receive vastly different amounts of training because of funding constraints or a reliance on individual preferences. Any training received can be quickly forgotten if "there is little support or minimal resources to put their new information or plans into action" (Zeece, 2001, p. 113). Additionally, most states do not require that center directors have even minimal amounts of college-level coursework in early childhood or child development (LeMoine & Azer, 2004). Directors may therefore lack the expertise or knowledge base to facilitate teachers' ongoing training. The result can be teachers with varying amounts of safety or procedural knowledge and little growth in their professional knowledge or classroom practice.

The field has experienced some success in providing various training opportunities (e.g., see Cassidy, Buell, Pugh-Hoese, & Russell, 1995; Cassidy, Hicks, Hall, Farran, & Gray, 1998; Espinosa, Mathews, Thornburg, & Ispa, 1999; Horm, Caruso, & Golas, 2003; Horm-Wingerd, Caruso, Gomes-Atwood, & Golas, 1997). Yet because such efforts were not part of a larger coordinated system, merely offering access to "all of the above" may not create a well-trained workforce. Furthermore, without a working model of a coordinated system, policy makers may

not realize what it takes to put together a complete professional development initiative. With the aim of addressing this context, this paper reports on a qualitative interview study focusing on the professional development provided to caregivers in military CDCs.

Methodology

The settings for this study are six CDCs (three Army, two Navy, and one Air Force) located in the mid-Atlantic region of the United States. Each CDC is staffed by civilians and serves dependents of active-duty military families and U.S. Department of Defense employees only. At the time of the study, all six settings were accredited by NAEYC. Together, they had 213 caregivers, providing direct care to just over 660 children between the ages of 6 weeks and 5 years.

Participants

This study utilized the perspectives of two groups of participants: the eight Training & Curriculum Specialists (T&Cs) who work on-site at each CDC to provide professional development to their respective caregiving staff, and 13 caregivers from across all six settings (see Table 1). T&Cs ranged in age from 28 to 55, with a mean age of 41. As per Department of Defense policy, all eight had at least a bachelor's degree, with almost all of these degrees related to teaching or early childhood. George was the only male. All except Gwen were Caucasian. Their experience as T&Cs in their respective centers ranged from 2 to 13 years. Caregivers' ages ranged from 20 to 49, with the mean being 34. All were female except Henry. Five of the more-experienced caregivers were "classroom leads," meaning they bore the primary responsibility for planning the daily activities in their respective classrooms. Eight caregivers were European American, and the remaining five represented Asian American, African American, Hispanic, Turkish, or Filipino backgrounds. Their experience ranged from being new hires to over 14 years of working in their CDC.

Table 1
Participants via Settings

	Army I	**Army II**	**Army III**	**Air Force**	**Navy I**	**Navy II**
T&Cs	Gail	Linda Lisa	Jill	George Gwen	Maura	Kathy
Caregivers						
New Hires	Henry	Brenda				
18-36 Months' Experience	Irma	Maria	Patricia		Tina	
Over 5 Years' Experience		Rhonda Sharon	Mary	Linny Vera		Joanne Serena

While both cohorts were purposefully sampled, the only criterion for T&Cs was that they were working in this capacity at one of the six CDCs participating in the study. Caregiver participants were selected from a larger group of volunteers to represent different levels of experience both in early childhood settings overall and military CDCs specifically. All participants were assigned a pseudonym.

Data Collection, Analysis, and Validity Procedures

Data collection occurred through two phases of tape-recorded interviews using semistructured protocols. In the first phase, the author interviewed each T&C once for approximately 60 minutes in his or her respective CDC. Interviewing T&Cs first allowed for a better understanding of the kinds of professional development offered to caregivers before interviewing them for

approximately 45 minutes, also at their CDCs. Both phases of interviews were supplemented by the collection of training documents, as well as follow-up email messages and conversations with T&Cs focusing on various elements of the training that they either provided to caregivers or received themselves as professional developers. The author also exchanged email messages with service branch superiors and inspectors to learn more about the various training and support opportunities available to T&Cs.

All 21 interviews were analyzed through coding, which is a process that helps qualitative researchers make sense of their data by sorting information into different categories or classifications (Patton, 2002). The author initially coded participants' interviews based on the study's research questions (Miles & Huberman, 1994) and then grouped responses within each of these compilations into more-refined categories (Stake, 1995). The interviews were then further grouped according to the service branch and/or CDC for which participants worked, as well as by caregivers' experience levels. This latter round of coding was much more inductive, as well, meaning additional categories emerged from the participants' responses, as opposed to being directly related to the study's research questions (Patton, 1990).

The internal validity of this study was enhanced by providing each participant with the transcript of his or her individual interview and asking him or her to check it for accuracy (Creswell, 1998). No participant indicated that the interview was incorrectly transcribed or asked to have any narrative deleted. In addition, all interviews were triangulated with each other and with the training documents collected (Mathison, 1988; Meijer, Verloop, & Beijaard, 2002). Each participant also received a copy of the entire study in draft form on two separate occasions and was encouraged to comment on anything that was incorrect. The feedback received indicated that the author's interpretations—which are described next—were "right on target."

Results

Although much of the civilian ECE workforce participates in professional development that has "taken the form of a training nonsystem" (Pritchard, 1996, p. 124), military caregivers receive both one-size-fits-all training and the kind of constructivist training that "take[s] explicit account of the contexts of teaching and the experience of teachers" (Little, 1993, p. 138). Furthermore, the training occurs through four interrelated phases: (1) standardized orientation, (2) modules, (3) annual training, and (4) nonstandardized, as-needed professional development.

Orientation

The minimum qualifications necessary to work in a military CDC are similar to those found in many civilian ECE centers: new caregivers must be 18 or older; read, write, and speak English; and have at least a high school diploma. Yet, there is far less similarity in terms of the knowledge-building process for new hires. Orientation for new civilian teachers might only entail filling out required payroll paperwork and receiving a rudimentary introduction to working in that center (Weinstein & Allen, 2001). As Army infant caregiver Maria noted about her previous civilian ECE job: "They asked me during my interview how I would go into a situation or how I was going to deal with it, but a formal orientation, no. They said, 'You have to work on these days,' and that's it."

In military CDCs, no matter what a caregiver's educational background may be, before being counted as part of a classroom's teacher-child ratio, a caregiver must undergo a "get[ting] them familiar with everything" orientation coordinated by their T&C. Purposefully designed to get caregivers "up and running," it follows a prescribed format and covers such topics as check-in and release procedures and safety and emergency regulations (see Table 2). New caregivers are also introduced to issues such as child abuse, special needs, and developmentally appropriate practice. Much of the orientation training is offered via videotapes that caregivers can watch in their CDC's training room. New caregivers also spend as much as 16 hours observing more-

experienced caregivers and undergoing a supervised work experience as part of their orientation, with T&Cs determining which classrooms are best suited for each caregiver.

Table 2
Orientation Topics and Activities

Topic/Activity	Army	Air Force	Navy
Regulations and Service Branch/Center Standard Operating Procedure (e.g., drop-off & pickup procedures, rules for visitors)	▪	▪	▪
Child Growth & Development	▪		▪
Developmentally Appropriate Practice	▪	▪	▪
Parent & Family/Public & Customer Relations	▪	▪	▪
Child Health, Sanitation, & Nutrition	▪	▪	▪
Family-Style Dining	▪		
Safety & Emergency Procedures	▪	▪	▪
Child Abuse Identification, Reporting, & Prevention	▪	▪	▪
Touch Policy	▪		
Special Needs Awareness	▪		
Positive Guidance	▪		
Total Hours of Orientation Training	8 hours	8 hours	27 hours
Total Hours of Observation/Supervised Work Experience	16 hours	4 hours	16 hours

All of the newer caregivers had "eye-opening" moments during orientation. Tina—a 20-year-old Navy caregiver who had also previously worked in a civilian center—mentioned that it was during orientation that she realized the importance of class sizes, ratios, and age groupings. Henry—a 20-year-old Army caregiver—noted that orientation gave him "a better idea of how things work in the center, [and] why they have drama centers and art centers [in the classrooms, and] what to do." He also explained what he learned as a result of observing in a variety of classrooms:

> [I now know there are] subtle variances in age—even like a couple of months. The child could act completely different ... there's a huge difference between 18 months and 12 months.... They can talk when they get a little bit older, they can use the potty, and they seem to understand consequences. The younger kids—when they're eating—you're expecting them to make a mess. A couple months can do a lot for them.

It should be noted that in the civilian ECE field, the average inservice training requirement among all 50 states is just over 13 hours per year (Ackerman, 2004). Depending on the service branch, CDC caregiver orientation can take between 12 and 43 hours to complete. However, this phase of their standardized training is just the first step in their overall professional development.

Modules

> In a lot of the civilian places [where I used to work] ... there is no training or very little training ... to keep you motivated and keep you on a higher level of being interested in what you're doing—such as "Why is this child doing this?" or expecting the child to do something. (Patricia, Army infant caregiver)

Caregivers' learning does not end with completion of their compulsory orientation. Instead, they spend the next 18 months working their way through a standardized caregiver curriculum known

as "the modules." This phase of their professional development focuses on the care and development of infants, toddlers, or preschoolers so that caregivers can increase their knowledge about the age group they work with. For example, if a caregiver works in a 3- and 4-year-old classroom, she is expected to complete the preschool modules. No matter what the age focus, each complete set of modules is composed of a minimum of 13 individual chapters focusing on topics such as Creating Learning Environments, Promoting Cognitive Development, and Working with Families (see Table 3). There are also additional service-specific child abuse chapters, which caregivers must complete first. Each chapter includes concrete and succinct information that caregivers need to read, as well as activities such as short writing assignments, hands-on activities, or observations of children.

Table 3
Module Topics and Focus*

Topic	Focus
Safety	Provide a safe environment to prevent and reduce injuries.
Health	Promote good health and nutrition and provide an environment that contributes to the prevention of illness.
Learning Environment	Use space, relationships, materials, and routines as resources for constructing an interesting, secure, and enjoyable environment that encourages play, exploration, and learning.
Physical	Provide a variety of equipment, activities, and opportunities to promote the physical development of children.
Cognitive	Provide activities and opportunities that encourage curiosity, exploration, and problem solving appropriate to the developmental levels and learning styles of children.
Communication	Communicate with children and provide opportunities and support for children to understand, acquire, and use verbal and nonverbal means of communicating thoughts and feelings.
Creative	Provide opportunities that stimulate children to play with sound, rhythm, language, materials, space, and ideas in individual ways to express their creative abilities.
Self	Provide physical and emotional security for each child and help each child know, accept, and take pride in himself or herself and to develop a sense of independence.
Social	Help each child to feel accepted in the group, help children learn to communicate and get along with others, and encourage feelings of empathy and mutual respect among children and adults.
Guidance	Provide a supportive environment in which children can begin to learn and practice appropriate and acceptable behaviors as individuals and as a group.
Families	Maintain an open, friendly, and cooperative relationship with each child's family; encourage the family's involvement in the program; and support the child's relationship with his or her family.
Program Management	Use all available resources to ensure an effective operation.
Professionalism	Make decisions based on knowledge of early childhood theories and practices, promote quality in child care services, and take advantage of opportunities to improve competence both for personal and professional growth and for the benefit of children and families.

*Source: Koralek, Derry G.; Dodge, Diane Trister; & Pizzolongo, Peter J. (2004). *Caring for preschool children* (3rd ed., p. vi). Washington, DC: Teaching Strategies.

T&Cs play a key role in helping caregivers proceed through the modules by providing feedback and answering any questions that caregivers might have. Recently hired Army caregiver Brenda talked about how her T&C's feedback is a key aspect of this learning:

> [My T&C] Linda is really very informative.... [She] sits down, and we go over everything. She asks me questions, and sometimes I have questions: "Is this

> allowed?" Or if I don't [have questions], she'll say, "What did you get out of it?" ... She's like a teacher, always giving answers to my questions.... I get constant feedback from Linda.

Once caregivers have finished the activities for each individual module chapter, they must take a written test and receive a grade of at least 80%. The test consists of both matching and multiple-choice questions and a few short essays. After passing each module's test, caregivers are assessed for competency through a scheduled classroom observation. T&Cs conduct these observations to ensure that caregivers can put the concepts learned as part of any individual module chapter into practice. Caregivers also receive feedback from their T&C afterward, thus also providing an opportunity for caregivers to know what areas they need to work on, as well as how they might improve their practice.

Requiring completion of the modules provides advantages to the military. Use of a standardized "caregiver curriculum" ensures that direct care staff throughout the system have the same minimum knowledge base. Because the chapters are also aligned with the competencies of the Child Development Associate (CDA) credential, until recently caregivers have also been able to meet the training requirements necessary for lead teachers in NAEYC-accredited centers. In addition, standardization also allows caregivers to easily begin to "pick up where they left off" if they transfer to another CDC. This latter point is particularly salient given that many caregivers are part of an active duty military family and thus may move to a new base or post every two to three years.

Caregivers in this study also felt that completing the modules provided them with an advantage. For Patricia, who used to work in a civilian ECE center, the increase in her knowledge base as a result of completing the infant modules enables her to take her caregiving and interactions with children "to another level ... [and] make it just a little bit more mentally stimulating, rather than ... just a boring, monotonous job." This learning is enhanced through the last phase of standardized training.

Annual Training

> When I was working at the private day care center, the director would only send one person to do CPR, and that person had to be working for more than a year. When I was taking CPR [here at my CDC], I thought CPR was the same for adults, infants, and toddlers. [But] you have to do it in a different way ... [and] you have to demonstrate how to do the infant CPR, the child CPR, and the adult CPR. (Maria, Army infant caregiver)

As caregivers begin working through their modules, they are introduced to additional topics that are required to be revisited on an annual basis (see Table 4). For example, since being hired four months ago, Henry has attended training on Communicable Diseases, First Aid, Cardio-Pulmonary Resuscitation (CPR), How to Administer Medicine, and Child Abuse. Both T&Cs and other base-related personnel provide annual training sessions. For instance, T&Cs might provide CPR and First Aid training if they are certified to do so, but medical personnel from their base or service branch lead health- and medication-related training sessions. Although each service branch has a slightly different set of mandatory annual training sessions, they translate into 24 to 48 hours of training each year.

Table 4
Annual Required Training

Topic	Army	Air Force	Navy
Operational Risk Management		▪	
Fire Safety	▪ (some CDCs)	▪	▪

Job Safety		▪	
Back Injury Prevention			▪
Winter/Holiday Safety		▪	
Suicide Prevention		▪	
Medication Safety/Dispensing	▪ (every 3 years)	▪	
Asthma	▪ (some CDCs)		
Communicable Diseases	▪ (every 3 years)	▪	
Bloodborne Pathogens	▪ (some CDCs)		▪
CPR	▪	▪	▪
First Aid	▪ (every 3 years)	▪	▪ (every 3 years)
Child Abuse	▪	▪	▪
Touch Policy		▪	
Guidance Policy		▪	
Positive Guidance		▪	▪
Food Service/Family Style Dining		▪	▪
NAEYC Accreditation	▪		
ITERS/ECERS/DAP	▪		▪
Service-Branch Inspection Criteria	▪		
Ethics in the Workplace or Character Education	▪		
Parent & Family Relations/Customer Service			
Independent Research Project	▪		▪

These training sessions are not just for new caregivers, or as Maria shared above, limited to just one staff member at a center. Instead, all CDC caregivers must participate. Mary, an Army preschool caregiver with almost 15 years of experience in her CDC, shared why she thinks such training should remain mandatory for all caregivers:

> I've had children choke on me. One child choked on spaghetti, because it was long and he just shoved everything in his mouth. We always have a teacher at the table [during lunch], and you could see he was choking. I started pulling it out of his mouth ... and then finally I remembered, "Pinky!"—getting the pinky in there, and trying to get it out.... We have [choking training], too, including the Heimlich maneuver. That's all part of the CPR: the choking child, unconscious choking, and conscious choking.

As Mary also noted, although using this procedure is "not something you practice everyday," the fact that such incidents could occur are all the more reason why training of this type should also be offered on a regular basis in order "to refresh your memory."

Some of the required annual training is also more person specific and classroom specific. Army caregivers are required to become familiar with observational tools such as the *Early Childhood Environment Rating Scale (ECERS-R)* (Harms, Clifford, & Cryer, 1998) in order to review the quality of their own classrooms. Army and Navy caregivers are also required to conduct informal research using the Internet, books, or practitioner-oriented magazines and then implement their subsequent learning in their classrooms. Research topics are often chosen by the caregivers and focus on either expanding their knowledge base more generally or assisting them with a current classroom learning activity. For example, Rhonda conducted research to understand how to "add a more print-rich environment" and a writing area in her preschool classroom. Her research enabled her to learn that "you don't just have to have a book and teach [children] structured

reading, but having that environment where you have a lot of words and print around can help them with their pre-reading skills." Patricia researched "the vision of young infants and what they see and how it stimulates them." Sharon investigated the "'strong opinions' that the 3-year-old has" so that she could better understand some of her preschoolers.

The 10 caregivers who had completed their orientation, modules, and at least one round of annual training indicated that their standardized professional development not only "lays the foundation" for their practice and knowledge but also helps create a culture emphasizing continued learning. As Air Force caregiver Linny noted, "It seems like the [civilian] centers just say, 'You need some training, so maybe you need to get out there,' but turn around and walk away.... [Here they are] always trying to feed us and feed us with information." This "feeding" is further enhanced through the provision of nonstandardized professional development.

As-Needed Professional Development

The military's standardized training is designed to establish a minimum level of knowledge and practice throughout the CDC system. Because caregivers can be hired without any experience or child development knowledge, such a one-size-fits-all training model seems to offer a useful mechanism for providing caregivers with the "recipes for getting started" (Jones, 1993, p. xvi). At the same time, caregivers' continued learning is promoted through the provision of as-needed training that is much more reflective of—and responsive to—individual caregivers and classrooms.

This phase of training includes the provision of funding for caregivers who have already completed their modules to attend "outside" workshops offered by Child Care Resource & Referral agencies (CCR&Rs) and community colleges. T&Cs often provide caregivers with information about these training opportunities and actively encourage them to participate. Given that effective professional development is also person specific and context specific, it is perhaps not coincidental that the outside training opportunities perceived to be most helpful by both groups of participants are those focusing on classroom issues. For example, one of Army T&C Linda's caregivers had a special needs child in her classroom. As a result, Linda picked out different classes about special needs children and urged her caregiver to attend. Joanne, one of T&C Kathy's Navy caregivers, had a child in her pre-toddler classroom whose parents were deaf. Her center paid for Joanne and her fellow classroom caregiver to attend a six-week course on elementary sign language. Joanne subsequently developed such an enthusiasm for using sign language with her current class of preschoolers that she and her classroom colleague are now enrolled in a much more intensive six-week sign language course, where they are learning approximately 100 signs a week. Their Navy CDC is paying for this course, as well.

As part of each CDC's on-site staff, T&Cs are in their center's classrooms on a daily basis and thus are in a prime position to be aware of—as Army T&C Jill shared—any "issues going on" in the classrooms. T&Cs therefore also contribute to caregivers' continued learning by using their frequent visits to classrooms as spontaneous opportunities for role-modeling and providing feedback. Brenda, the recently hired Army preschool caregiver, commented on the helpfulness of the "constant feedback" she receives about her daily practice when her T&C, Linda, "stops by":

> ...[Linda] goes over everything she saw and what she liked and what she didn't like —things you could do, and things you could not do. When she comes back the next time, she'll say, "Oh, I like the way you started implementing the thoughts that I had given you last week." So she remembers what she spoke to you about the last time, and lets you know if you picked up on what she said.

Providing feedback can also occur on a scheduled basis. For example, Air Force classroom caregiving teams meet with their T&C Gwen on a monthly basis to discuss children's changing developmental needs and how they might best be met. Gwen described how these meetings also

provide as-needed professional development:

> If I can pull them out as a team and talk about [their] issues, support what they need, and give them individualized training for their specific team issues, children, parents, and environment, I don't believe that you need to sit any staff member down and teach them.... [When] you apply what you've seen to their specific situations and you can apply child development to their own personal issues, I think it means so much more to them. And I think that those are the moments when it really comes together for the staff.

Since this CDC serves infants and toddlers exclusively and utilizes a continuity of care approach, caregivers need a broader knowledge base than what might be considered adequate in a setting using a more-traditional approach to classroom placement. The meetings are thus particularly crucial for expanding caregivers' learning about children's growth and development between the ages of 0 and 3.

The T&Cs in this study talked about why ongoing training is most effective if it is specific to individual classrooms and teachers. Gail's thoughts echoed the perspectives of the other T&Cs in this study:

> I don't ever say, "Let's have a [training] session on something." But I will go in at naptime when there's a hot thing going on.... That's the way it works the best, and that's the way that the Army and everyone else teaches us that someone is ready to learn—when they need it. They'll learn it when they need it. I don't try to teach somebody who doesn't have a problem with biting [about biting]. I used to, but now I do it ... when it's initiated by the staff.

The U.S. military strives to provide caregivers with an adequate level of knowledge and practice by offering both highly centralized and context-specific and person-specific training. However, effective professional development also relies on various contextual factors, including a supportive organizational milieu and well-trained developers. Such support plays a key role in the military model, as well.

Additional Support for Caregivers

Participants' narratives also demonstrated that the military model occurs within a broader context of support. One such support extended to caregivers is their wages. In the civilian ECE sector, the average pay in 35 states is $8.50 per hour or less (Ackerman, 2006), and many in the field do not receive benefits (Whitebook, 1999). In contrast, caregivers' wages are on par with other base jobs that have similar training, seniority, and experience (Campbell, Appelbaum, Martinson, & Martin, 2000). For some of the new caregivers in this study, this translated into starting rates of $10.44 per hour, which were then raised to $11.39 when they completed about six month's worth of training and demonstrated competency and $12.79 when all of their modules were completed. Full-time caregivers receive job-related benefits, as well. Caregivers also receive recognition for completing their modules in the form of a certificate, pin, or tote bag. Such policies not only encourage retention but reflect the incentives that Knapp (2004) argues should be explicitly built into any professional development system.

Caregivers also receive implicit, "not on your own" support. Such assistance does not appear to be the result of any Department of Defense policy but was mentioned by almost every participant in the study, nonetheless. For example, Army caregiver Patricia noted, "If I ever feel that it's just too noisy or something, I can call my director or T&C and say, 'I need five minutes.'" Although such practical assistance is very much appreciated, what seems to be even more meaningful to caregivers is the tacit understanding that they will never be left on their own to deal with any unexpected, day-to-day classroom issues. Such an understanding provides

caregivers with the assurance that—as Air Force caregiver Linny stated—the T&Cs, administrative staff, and fellow caregivers will "swoop in and help" whenever needed. This assurance has been especially meaningful to Linny, who has three special needs children in her classroom. She shared an example:

> [One day] I said, "You know what? I've had it." This was before any of the [special needs] children were diagnosed.... I was so frustrated and the other girls were, too—it was just overwhelming, because at this time we had no professional help, but yet we were still having to deal with all of these things.... We said, "We have to sit down. We just need to talk." And [our T&C] Gwen said, "Let's see what we can do about having a [meeting]. Let's see if we can find some [staff to substitute for you] and we'll come in now."

Vera, one of Linny's fellow caregivers, also talked about what this assurance means to her:

> [The T&Cs' and director's goals] are to meet the needs of the children, and they're going to help me do that. I know I can come to them with any problem that I have and they're going to look at that child's needs or what my room needs as a whole, and they're going to find a way to do that for me. They'll find a way to move me to a bigger classroom if I've outgrown my classroom and the infants are running me over: "We've got to move Vera—she needs a bigger classroom now. These kids are moving all over." They're going to find it. If I need toys: "Gwen, we're overrun. Can you run down there and get me some walkers? We need a couple extra." I know that they are there in every aspect.

Linny seemed to speak for all of the caregivers when she said that her T&C is "always here and is never going to be saying, 'This is your problem and you have to deal with it.'" In turn, Gwen, Linny's T&C, seemed to speak for all of her colleagues when she expressed that she wants caregivers to know that "somebody is really on their side and really paying attention to them."

In the CDCs that participated in this study, the provision of such support seems to help create the collaborative, relationship-based context that is so critical for enhancing professional development (Lieberman & Grolnick, 1996; Little, 1982). Furthermore, because asking for—and receiving—any sort of spur-of-the-moment assistance is part of the everyday, organizational culture at these CDCs, ongoing professional development is not limited to discrete, top-down initiatives. Instead, it can be embedded in the daily life of working in a CDC, enabling it to also be the type of "on-the-job" learning that really can contribute to positive changes in teachers' practice and knowledge (Little, 1999; Loucks-Horsley, 1995).

Support for T&Cs

Caregivers are not the only ones who receive additional support in the military model. T&Cs also benefit from policies and contextual norms in order to enhance their effectiveness as staff developers. For example, even though they are hired already having at least a bachelor's degree related to early childhood and experience working with young children, they receive initial mentoring from more-experienced T&Cs and explicit guidance about caregivers' standardized training through service-branch-provided training guidebooks. They also have access to online forums where they can post training questions and receive training from both their respective service branches and through other nonmilitary professional organizations.

Furthermore, their work is nested within a hierarchical context that stresses high-quality programming and alignment of program standards and goals. CDCs undergo two unannounced inspections each year, with inspection criteria aligned with NAEYC accreditation criteria in order to help promote high-quality practice. Because early childhood specialists conduct service-branch inspections, T&Cs and caregivers also receive feedback on improving the quality of their

programs as part of the process. Such feedback can be further enhanced through discussions with CDC directors, all of whom have extensive early-childhood-related backgrounds. It should be noted that in the civilian ECE field, most states do not require that inspectors or directors have an early childhood background (LeMoine & Azer, 2004; Morgan, 2003). T&Cs also benefit from a sense of never being on their own. As Maura, a Navy T&C, noted, "[The other T&Cs] might share a form, or say 'I have an idea—this shortcut makes it a lot easier.' We are very supportive of each other [and] very willing to share."

At the conclusion of most of the interviews, participants were asked what the most important aspect or aspects of the military model were in terms of improving caregivers' practice and increasing their knowledge. Interestingly, although the modules, annual training, or having a T&C on staff were mentioned, cited more frequently were aspects related to the model's related support, such as aligned standards, the contextual support for caregivers, and the sense of "not being on their own." In sum, while we tend to think of professional development only in terms of the training teachers receive, what seems to be equally important in the military model are all of the related aspects that enhance its delivery and implementation. These include settings that are conducive to putting caregivers' learning into practice and policies requiring CDCs to meet specific levels of quality. There also is hierarchical support for high-quality programming and ensuring that CDCs have what they need to implement best practices in the field.

Lessons for ECE Teacher Professional Development Policy

The purpose of this paper was to describe the professional development that CDC caregivers receive in order to provide lessons regarding the essential components of a working professional development model. Given the minimal preservice educational requirements for the ECE workforce, the constraints faced in accessing high-quality professional development, and the level of ECE quality in this country, such lessons could be useful. Policy makers could also benefit from learning about the additional financial, technical, and human resources that are crucial for implementing an effective teacher professional development model (Welch-Ross, Wolf, Moorehouse, & Rathgeb, 2006).

Implementation of the Model Is Probably Dependent on Similar Financing and Governance

At first glance, the primary lesson of this study may appear to be rather straightforward. If states are not going to require that ECE teachers attain a college degree, rather than relying on our current loosely coupled arrangement of individual teacher resolve, completion of a specific number of training hours, and the offering of one-shot workshops, civilian ECE centers should emulate the military approach. In short, centers should hire a T&C and provide staff with both standardized and as-needed training as a means for ensuring that teachers receive appropriate professional development at every point in their careers. Yet, unless they are affiliated with a large child care franchise or corporation, implementing the military model would most likely be difficult because of two key constraints.

Financial Capacity. The first constraint is related to financial capacity. While revenue in the civilian and military sectors is somewhat comparable, in the military any direct costs associated with orientation videos, modules, and caregivers' annual training are borne by each CDC's respective service branch. The only nonlabor, professional-development-related expenditures in CDC budgets are those used to pay for outside training. Furthermore, the military base housing each CDC is responsible for occupancy costs, including rent or mortgage, utilities, building maintenance, insurance, or services such as trash or snow removal. These latter costs can take up as much as 28% of an individual civilian center's budget (Marshall et al., 2001). The low profit margins of between 3% and 5% on average in civilian centers (Helburn & Bergmann, 2002) would have an especially constraining effect on the capacity to pay not only higher

teacher salaries but also the salary of an on-site T&C. While the latest data (McCormick Tribune Center for Early Childhood Leadership, 2005) suggest that the average civilian ECE director in the United States earns $42,765, in 2005 T&Cs in the New York metropolitan area earned between $42,066 and $56,570 (United States Office of Personnel Management, 2005). Hiring a T&C would therefore entail budgeting for at least two director-level salaries.

Governance. The inability of civilian single-proprietor centers to implement the military model might appear to be solved merely by supplementing their revenue with public funds. However, the military model comprises more than just the training caregivers receive (see Figure 1). Attention is also paid to contextual support of caregivers' learning, including the alignment of program standards and goals at both the CDC and service-branch levels. In short, each interrelated aspect of the military model works together to ensure that caregivers are provided with "learning that never stops" and that any such learning will be supported in practice. As part of an overall training system, these aspects may also play a key role in creating the kind of collegial organizational norms found in military CDCs.

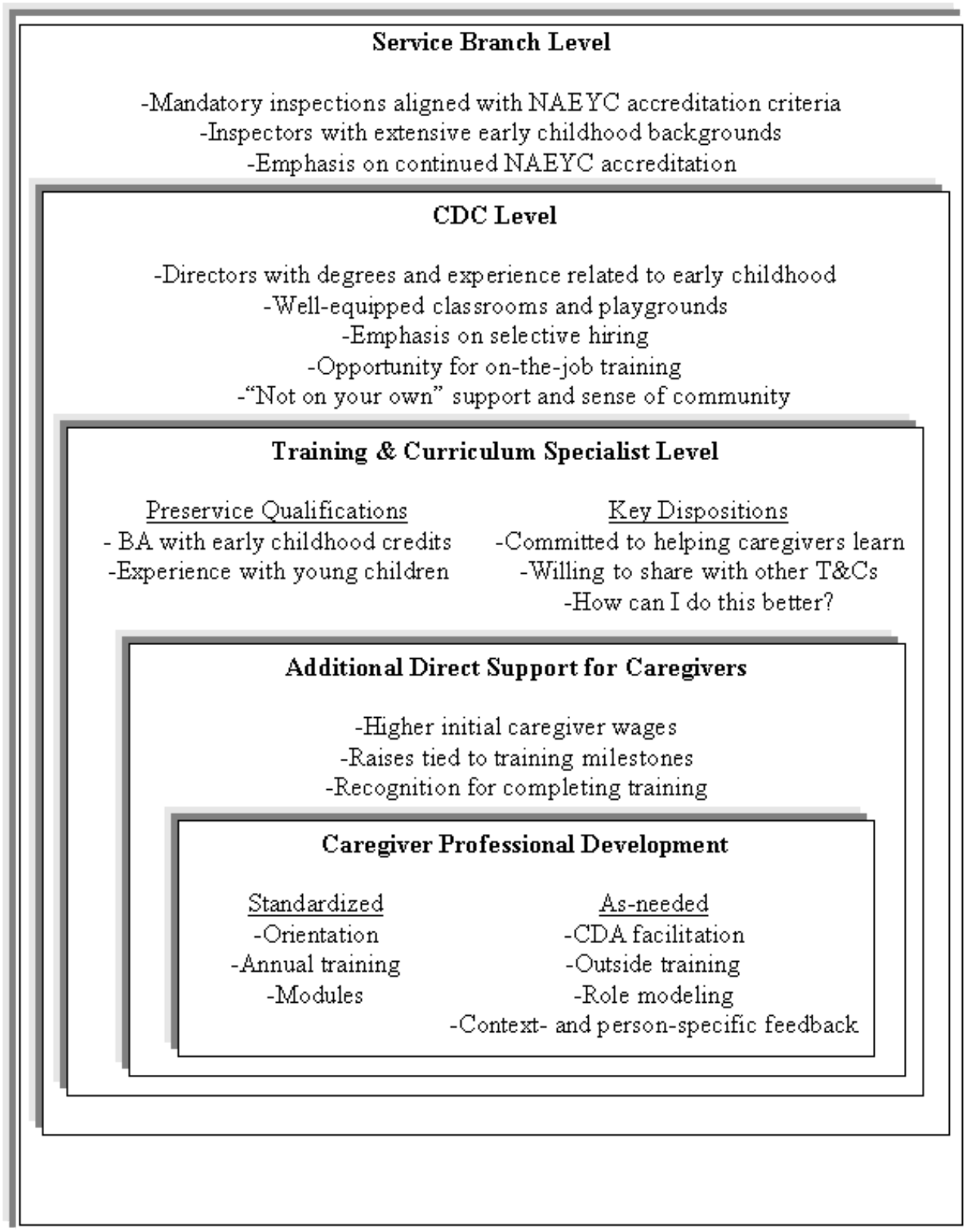

Figure 1. Components of the military professional development system.

Furthermore, the CDC training model is actually just one aspect of a much larger, centralized child care system, with its administrator—the U.S. Department of Defense—managing more centers than any other employer-sponsored child care management organization (Neugebauer, 2005). In contrast, most civilian ECE centers are not part of a larger corporation or franchise (Blau, 2001). While they must comply with their respective state-licensing regulations, civilian centers can best be described as a nonsystem in relation to each other. As a result, even if the financial capacity of civilian centers were increased, implementation would still be constrained

because of governance issues. Centers would have to voluntarily buy in to the idea of providing standardized and as-needed training and requiring caregivers to complete it, as well as adhering to a common training standard. In addition, without any common governance, civilian centers would be hard pressed to offer the type of technical assistance that exists in the military model. The lack of such support would especially impact the work of T&Cs, who in the military model have access to mentors, service-branch-provided training, guidebooks, networks, and online forums. If centers do not share common goals and practices, guidebooks and networks would be of little value. Yet, without such support, civilian T&Cs might not have the capacity to provide a similar level of professional development, particularly if they are new to the job.

Incorporating the Lesson of Purposeful Training

Given the critical roles that financial capacity and governance play in implementing the military model, any lessons that the model may have for civilian ECE professional development policy seem to be little more than "nice-in-theory" concepts. Furthermore, one could argue that such lessons are purely speculative, given that the study is limited by a small sample that is geographically situated within one area of the United States. In addition, the data reported are based on self-reports and were not verified through any additional measures. Classroom quality, the outcomes of children enrolled in any of the programs, or the impact of various aspects of the military model on these variables were not assessed, as well.

Despite these limitations, the model would seem to have one remaining lesson for the civilian sector—that is, rather than hoping that teachers will participate in various noncredit training opportunities and develop enhanced knowledge and skills as a result, the civilian sector might use the military's "purposeful" approach to restructure training into a more-coordinated system. Of course, designing a blueprint that details the best ways that "purposefulness" might be incorporated into the more typical one-shot workshops that most of the workforce relies on is beyond the scope of this paper. However, thinking about the standardized elements found in the military model provides some ideas for where to start. For example, a purposeful approach to civilian professional development could begin with a more carefully constructed orientation. This orientation could include watching a series of videotapes and attending a standardized series of training sessions. New hires could also spend a day observing a more-experienced teacher, if not in their own center, than in one that is similar in terms of standard procedures and approaches to ECE. Centers could also ensure that all teachers receive training on an annual basis to introduce—and reinforce—critical health and safety topics, such as communicable diseases and pediatric first aid.

Much of the civilian sector currently has access to low-cost, noncredit training opportunities that address such topics through this nation's CCR&Rs and community colleges. At present, though, unless training sessions are expressly organized to meet the requirements of the CDA credential, the emphasis tends to be on hours provided (Lobman et al., 2004; Smith, Vinci, & Galvan, 2003), rather than sequential or coordinated learning. Training could be restructured to develop linked offerings that build on each other, including the "straightforward, social knowledge that clarifies the expectations for [new hires'] work and gives them recipes for getting started" (Jones, 1993, p. xvi), as well as more in-depth training opportunities for experienced staff. Initiatives already underway in several states to provide the ECE workforce with a common core knowledge base (e.g., see Ackerman, 2004; Center for Early Childhood Professional Development, 2005; Illinois Network of Child Care Resource & Referral Agencies, 2005; Pennsylvania Pathways Program Career Development Task Force, 2002) are useful models of how such an approach might be designed and implemented. Organizing training in a more-purposeful manner would also seem to facilitate notifying ECE teachers about upcoming training opportunities that will build on what has been previously learned. At the very least, just as training calendars currently specify which CDA competency level is met by taking a particular training course, they could also indicate when offerings build on previous offerings.

Conclusion

In an ideal world, lessons regarding models of professional development for teachers who enter the field without any formal credentials, training, or experience would not be needed. Instead, all ECE teachers would have access to continuous and purposeful inservice professional development that would build on their preservice credentials and experience levels and that would be aligned with classroom needs and high-quality program standards. In reality, a large segment of the ECE workforce is not required to attain any preservice training, program quality leaves a lot to be desired, and the inservice training to which teachers have access may do little to improve their knowledge and practice. In the absence of a dramatic change in both state policies and the governance and funding of ECE in this country, then, the field will continue to need information about models of inservice training as a means for improving program quality.

This study sheds light on a professional development model that can potentially accommodate teachers' learning needs, no matter what their work context or previous level of education and experience. It also provides lessons about the wide variety of interrelated components that are crucial for its delivery and implementation. Adoption of the military model in much of the civilian sector may not be possible in the short term because of a lack of similar governance and funding. Yet, this study suggests that a good first step toward providing the ECE workforce with similar "learning that never stops" might be restructuring our perspectives regarding effective professional development policy.

Acknowledgments

The author wishes to gratefully acknowledge Sharon Ryan for her helpful comments and suggestions on an earlier version of this manuscript, which was presented at the 2006 Annual Meeting of the American Educational Research Association.

References

Ackerman, Debra J. (2004). States' efforts in improving the qualifications of early care and education teachers.*Educational Policy, 18*(2), 311-337.

Ackerman, Debra J. (2006). The costs of being a child care teacher: Revisiting the problem of low wages.*Educational Policy, 20*(1), 85-112.

Barnett, W. Steven. (2002). Early childhood education. In Alex Molnar (Ed.), *School reform proposals: The research evidence* (pp. 1-26). Greenwich, CT: Information Age.

Blau, David M. (2001). *The child care problem: An economic analysis*. New York: Russell Sage Foundation.

Bowman, Barbara T.; Donovan, M. Suzanne; & Burns, M. Susan (Eds.). (2001). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press.

Burchinal, Margaret R.; Cryer, Debby; Clifford, Richard M.; & Howes, Carollee. (2002). Caregiver training and classroom quality in child care centers. *Applied Developmental Science, 6*(1), 2-11.

Burts, Diane C., & Buchanan, Teresa K. (1998). Preparing teachers in developmentally appropriate ways to teach in developmentally appropriate classrooms. In Carol Seefeldt & Alice Galper (Eds.), *Continuing issues in early childhood education* (2nd ed., pp. 129-158). Upper Saddle River, NJ: Prentice-Hall.

Campbell, Nancy Duff; Appelbaum, Judith C.; Martinson, Karin; & Martin, Emily. (2000). *Be all that we can be: Lessons from the military for improving our nation's child care system*. Washington, DC: National Women's Law Center.

Carter, Margie, & Curtis, Deb. (1994). *Training teachers: A harvest of theory and practice*. St. Paul, MN: Redleaf Press.

Cassidy, Deborah J.; Buell, Martha J.; Pugh-Hoese, Stephannie; & Russell, Sue. (1995). The effect of education on child care teachers' beliefs and classroom quality: Year one evaluation of the TEACH early childhood associate degree scholarship program. *Early Childhood Research Quarterly, 10*(2), 171-183.

Cassidy, Deborah J.; Hicks, Susan A.; Hall, Alice Henderson; Farran, Dale C.; & Gray, Jackie. (1998). The North Carolina Child Care Corps: The role of National Service in child care. *Early Childhood Research Quarterly, 13*(4), 589-602.

Center for Early Childhood Professional Development. (2005). *Entry level child care training (ELCCT) online.*Retrieved October 30, 2005, from http://www.ceepd.org/Child%20Care%20Careers/elcct_new.html

Creswell, John W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage

Cryer, Debby. (1999). Defining and assessing early childhood program quality. *Annals of the American Academy of Political and Social Sciences, 563*(1), 39-55.

Epstein, Ann S. (1993). *Training for quality: Improving early childhood programs through systematic inservice training*. Ypsilanti, MI: High/Scope Press.

Espinosa, Linda M.; Mathews, Michelle C.; Thornburg, Kathy R.; & Ispa, Jean. (1999). Training and rural child care providers: Results of Project REACH. *NHSA Dialog, 2*(3), 361-388.

Gable, Sara, & Hunting, Melissa. (1999). Community-based child care provider training: The highs and the lows.*Early Childhood Education Journal, 27*(1), 57-63.

Gallagher, James J.; Clifford, Richard M.; & Maxwell, Kelly. (2004). Getting from here to there: To an ideal early preschool system. *Early Childhood Research & Practice, 6*(1). Retrieved October 17, 2006, fromhttp://ecrp.illinois.edu/v6n1/clifford.html

Hamilton, Claire E. (1994). Moving beyond an initial level of competence as an infant teacher. In Stacie G. Goffin & David E. Day (Eds.), *New perspectives in early childhood teacher education: Bringing practitioners into the debate* (pp. 75-85). New York: Teachers College Press.

Harms, Thelma; Clifford, Richard M.; & Cryer, Debby. (1998). *Early childhood environment rating scale* (Rev. ed.). New York: Teachers College Press.

Helburn, Suzanne W., & Bergmann, Barbara R. (2002). *America's child care problem: The way out*. New York: Palgrave.

Horm, Diane M.; Caruso, David A.; & Golas, Julianna. (2003). Head Start teaching center: Differential training effects for Head Start personnel. *Child and Youth Care Forum, 32*(1), 23-46.

Horm-Wingerd, Diane M.; Caruso, David A.; Gomes-Atwood, Sheryl; & Golas, Julianna. (1997). Head Start Teaching Center: Evaluation of a new approach to Head Start staff development. *Early Childhood Research Quarterly, 12*(4), 407-424.

Howes, Carollee; James, Jolena; & Ritchie, Sharon. (2003). Pathways to effective teaching. *Early Childhood Research Quarterly, 18*(1), 104-120.

Hyson, Marilou. (2001). Better futures for young children, better preparation for their teachers: Challenges emerging from recent national reports. *Young Children, 56*(1), 60-62.

Illinois Network of Child Care Resource & Referral Agencies. (2005). *Early childhood career lattice: Level 1 content areas, benchmarks and outcome*s. Bloomington, IL: Author.

Jones, Elizabeth. (1993). Introduction: Growing teachers. In Elizabeth Jones (Ed.), *Growing teachers: Partnerships in staff development* (pp. xii-xxiii). Washington, DC: National Association for the Education of Young Children.

Knapp, Michael S. (2004). Professional development as a policy pathway. *Review of Research in*

Education, 27(4), 109-157.

Koralek, Derry G.; Dodge, Diane Trister; & Pizzolongo, Peter J. (2004). *Caring for preschool children* (3rd ed.). Washington, DC: Teaching Strategies.

LeMoine, Sarah, & Azer, Sheri. (2004). *Center child care licensing requirements: Minimum early childhood education (ECE) preservice qualifications, administrative, and annual ongoing training hours for directors*. Retrieved May 31, 2004, from http://nccic.org/pubs/cclicensingreq/cclr-directors.pdf

Lieberman, Ann, & Grolnick, Maureen. (1996). Networks and reform in American education. *Teachers College Record, 98*(1), 7-45.

Little, Judith Warren. (1982). Norms of collegiality and experimentation: Workplace conditions and school success. *American Educational Research Journal, 19*(3), 325-340.

Little, Judith Warren. (1993). Teachers' professional development in a climate of educational reform.*Educational Evaluation and Policy Analysis, 15*(2), 129-151.

Little, Judith Warren. (1999). Organizing schools for teacher learning. In Linda Darling-Hammond & Gary Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 233-262). San Francisco: Jossey-Bass.

Lobman, Carrie; Ryan, Sharon; McLaughlin, Jill; & Ackerman, Debra J. (2004). *Educating preschool teachers: Mapping the teacher preparation and professional development system in New Jersey.* New Brunswick, NJ: Rutgers University Graduate School of Education.

Loucks-Horsley, Susan. (1995). Professional development and the learner centered school. *Theory into Practice, 34*(4), 265-271.

Marshall, Nancy L.; Creps, Cindy L.; Burstein, Nancy R.; Glantz, Frederic B.; Robeson, Wendy Wagner; & Barnett, Steve. (2001). *The cost and quality of full day, year-round early care and education in Massachusetts: Preschool classrooms*. Wellesley, MA: Wellesley Centers for Women and Abt Associates.

Mathison, Sandra. (1988). Why triangulate? *Educational Researcher, 17*(2), 13-17.

McCormick Tribune Center for Early Childhood Leadership. (2005, Summer). A focused look at program directors: Education, salary, and benefits. *Research Notes*.Retrieved October 17, 2006, fromhttp://ceel.nl.edu/research/issues/rnsu05.pdf

McMullen, Mary Benson. (1998). The beliefs and practices of early childhood educators in the U.S.: Does specialized preparation make a difference in adoption of best practices? *International Journal of Early Childhood Education, 3*, 5-29.

McMullen, Mary Benson. (1999). Characteristics of teachers who talk the DAP talk and walk the DAP walk.*Journal of Research in Early Childhood Education, 13*(2), 216-230.

Meijer, Paulien C.; Verloop, Nico; & Beijaard, Douwe. (2002). Multi-method triangulation in a qualitative study on teachers' practical knowledge: An attempt to increase internal validity. *Quality & Quantity, 36*(2), 145-167.

Miles, Matthew B., & Huberman, A. Michael. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Morgan, Gwen G. (2003). Regulatory policy. In Debby Cryer & Richard M. Clifford (Eds.), *Early childhood education & care in the USA* (pp. 65-85). Baltimore, MD: Paul H. Brookes.

Neugebauer, Roger. (2005). Employer child care providers stalled, but optimistic: Fourteenth annual status report on employer child care. *Exchange, 162*, 66-68.

Patton, Michael Quinn. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Patton, Michael Quinn. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand

Oaks, CA: Sage.

Peisner-Feinberg, Ellen S.; Burchinal, Margaret R.; Clifford, Richard M.; Culkin, Mary L.; Howes, Carollee; Kagan, Sharon Lynn; Yazejian, Noreen; Byler, Patricia; Rustici, Janice; & Zelazo, Jean. (1999, October). *The children of the cost, quality, and outcomes study go to school: Technical report*. Chapel Hill: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center.

Pennsylvania Pathways Program Career Development Task Force. (2002). *Pennsylvania core body of knowledge for early childhood and school-age caregivers*. Erie: Pennsylvania Pathways Program.

Pritchard, Eliza. (1996). Training and professional development: International approaches. In Sharon L. Kagan & Nancy E. Cohen (Eds.), *Reinventing early care and education: A vision for a quality system* (pp. 124-141). San Francisco: Jossey-Bass.

Saluja, Gitanjali; Early, Diane M.; & Clifford, Richard M. (2002). Demographic characteristics of early childhood teachers and structural elements of early care and education in the United States. *Early Childhood Research & Practice, 4*(1). Retrieved October 17, 2006, from http://ecrp.illinois.edu/v4n1/saluja.html

Smith, Linda; Vinci, Yasmina; & Galvan, Michelle. (2003). *Poised for shaping results-based early learning systems: A report on child care resource and referral in the United States*. Washington, DC: National Association of Child Care Resource and Referral Agencies.

Stake, Robert E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

United States Office of Personnel Management.(2005). Salary table 2005-NY. Retrieved March 25, 2005, from~~http://www.opm.gov/oca/05tables/pdf/ny_h.pdf~~

Vartuli, Sue. (1999). How early childhood teacher beliefs vary across grade level. *Early Childhood Research Quarterly, 14*(4), 489-514.

Weinstein, Marlene, & Allen, Joe. (2001). Orienting staff right from the beginning. In Bonnie Neugebauer & Roger Neugebauer (Eds.), *Staff challenges: Articles from Child Care Information Exchange* (pp. 81-85). Redmond, WA: Child Care Information Exchange.

Welch-Ross, Melissa; Wolf, Anne; Moorehouse, Martha; & Rathgeb, Colleen. (2006). Improving connections between professional development research and early childhood policies. In Martha Zaslow & Ivelisse Martinez-Beck (Eds.), *Critical issues in early childhood professional development* (pp. 369-394). Baltimore, MD: Paul H. Brookes.

Whitebook, Marcy. (1999). Child care workers: High demand, low wages. *Annals of the American Academy of Political and Social Sciences, 563*(1), 146-161.

Zeece, Pauline Davey. (2001). All dressed up and no place to grow! In Bonnie Neugebauer & Roger Neugebauer (Eds.), *Staff challenges: Articles from Child Care Information Exchange* (pp. 113-117). Redmond, WA: Child Care Information Exchange.

Author Information

Debra J. Ackerman, Ph.D., is an assistant research professor at the National Institute for Early Education Research (NIEER). Her work focuses on policy issues related to preschool, kindergarten, and the professional development of the early care and education workforce.

Debra J. Ackerman
National Institute for Early Education Research
120 Albany Street, Tower 1, Suite 500
New Brunswick, NJ 08901
Telephone: 732-932-4350, ext. 233
Email: dackerman@nieer.rutgers.edu