

# Does Preschool Education Policy Impact Infant/Toddler Care?

March 2009, Issue 20

## Preschool Policy Brief

Policy Brief series edited by Ellen C. Frede, Ph.D., and W. Steven Barnett, Ph.D.

National Institute for Early Education Research

[www.nieer.org](http://www.nieer.org)

**RUTGERS**  
Graduate School of Education

by Debra J. Ackerman and W. Steven Barnett

Finding affordable, high-quality child care for infants (children up to 12 months old) and toddlers (1- and 2-year-olds) can be difficult. As public support for the education and care of 3- and 4-year-olds has increased, questions have arisen about the extent this has helped or hurt the provision of care for young children. Concerns have been particularly great regarding the impact of the expansion of state pre-K to serve all children. Topics addressed in this brief include:

- Trends in supply and demand in the infant/toddler care market;
- Current use of infant/toddler care and the cost and quality of current arrangements;
- State and federal policies for infant/toddler care;
- Potential influences of preschool policies on the supply of quality infant/toddler care;
- Policy changes that can ensure new preschool policies benefit infant/toddler care as well and avoid unintended negative consequences.



### What We Know:

- The supply of infant/toddler care has risen to keep pace with increased demand over the past 35 years. The supply of center-based care has risen in greater proportion than the supply of home-based care. However, the supply of high-quality care is very limited.
- High-quality infant/toddler care is more expensive than comparable quality care for preschoolers.
- Public subsidies do not always cover the cost of high-quality infant/toddler care.
- High-quality infant/toddler care can enhance child development, and access is particularly important for disadvantaged children.
- There is no evidence that the expansion of public support for preschool education has reduced the supply of high-quality infant/toddler care.

### Policy Recommendations:

- Early learning policy development should encompass birth to age 8 so that there is coordinated planning, infrastructure, data systems, and professional development.
- Adequate funding is critical for an adequate supply of high-quality infant/toddler care. Funding must be sufficient to attract and retain good administrators and teachers.
- When funding is increased for pre-K programs, negative impacts on infant/toddler care can be avoided by using funding set asides and rate increases to ensure payments for infant/toddler care remain competitive.
- Research and evaluation is needed to develop more effective infant/toddler programs and policies generally as well as to specifically monitor the potential influence of preschool policies on infant/toddler care.

# The Demand for Infant/Toddler Care

Before examining which factors influence the supply of infant/toddler care, it is useful to understand the driving forces behind the trend toward increased demand for such care. One source of increased demand is a growing awareness of how young children's early experiences can enhance their cognitive and social-emotional growth.<sup>1</sup> As a result, more parents are seeking

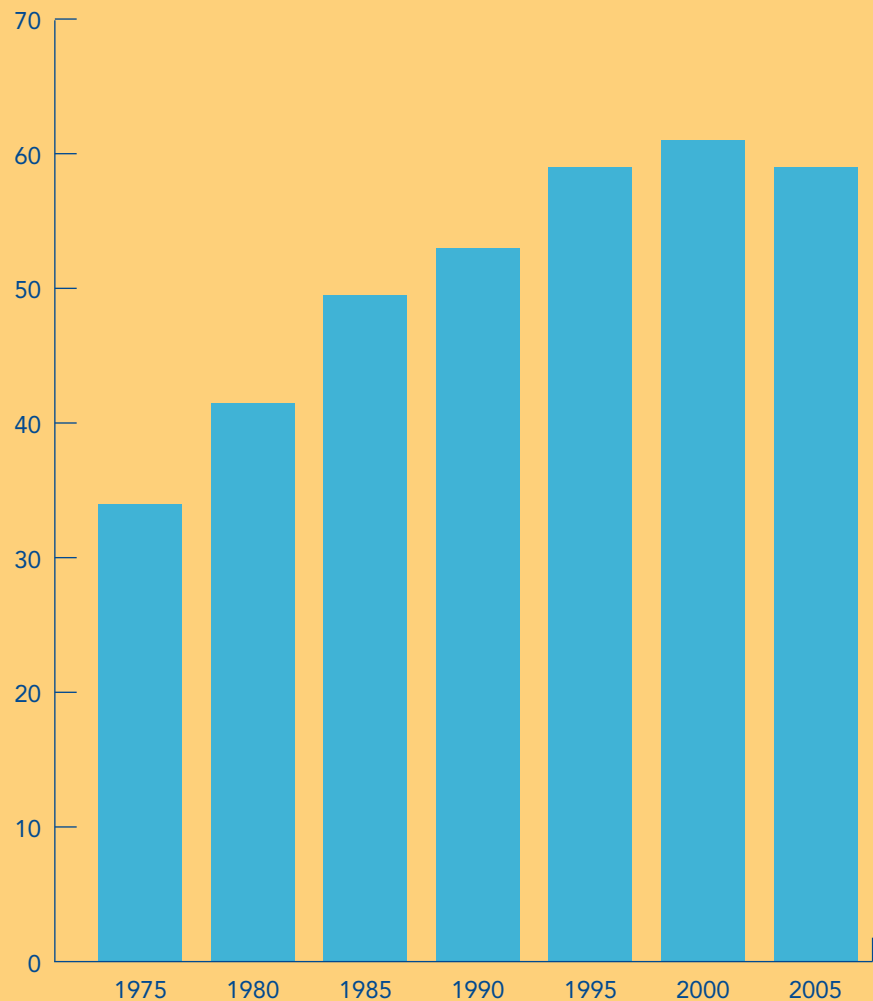
care that is not only safe and nurturing, but also will contribute to their children's development in these areas.

However, the most salient factor behind increased demand for infant/toddler care is the increase in the numbers of mothers who are in the workforce. Between 1975 and 2005, the percentage of working mothers with children under the age of 18 rose

from 47 to 71 percent. Mothers with children aged 6-17 have the highest employment rates, but the largest increase in maternal employment rates has been for mothers with children who are not yet 3. In 1975, only 34 percent of these women were in the labor force (see Figure 1). Today, that figure is about 60 percent, a level that has held steady for more than a decade.<sup>2</sup>



Figure 1. Percentage of Women with Children Under the Age of 3 in the Labor Force



The percentage of mothers of children under the age of 3 who are employed has almost doubled in the past 30 years.

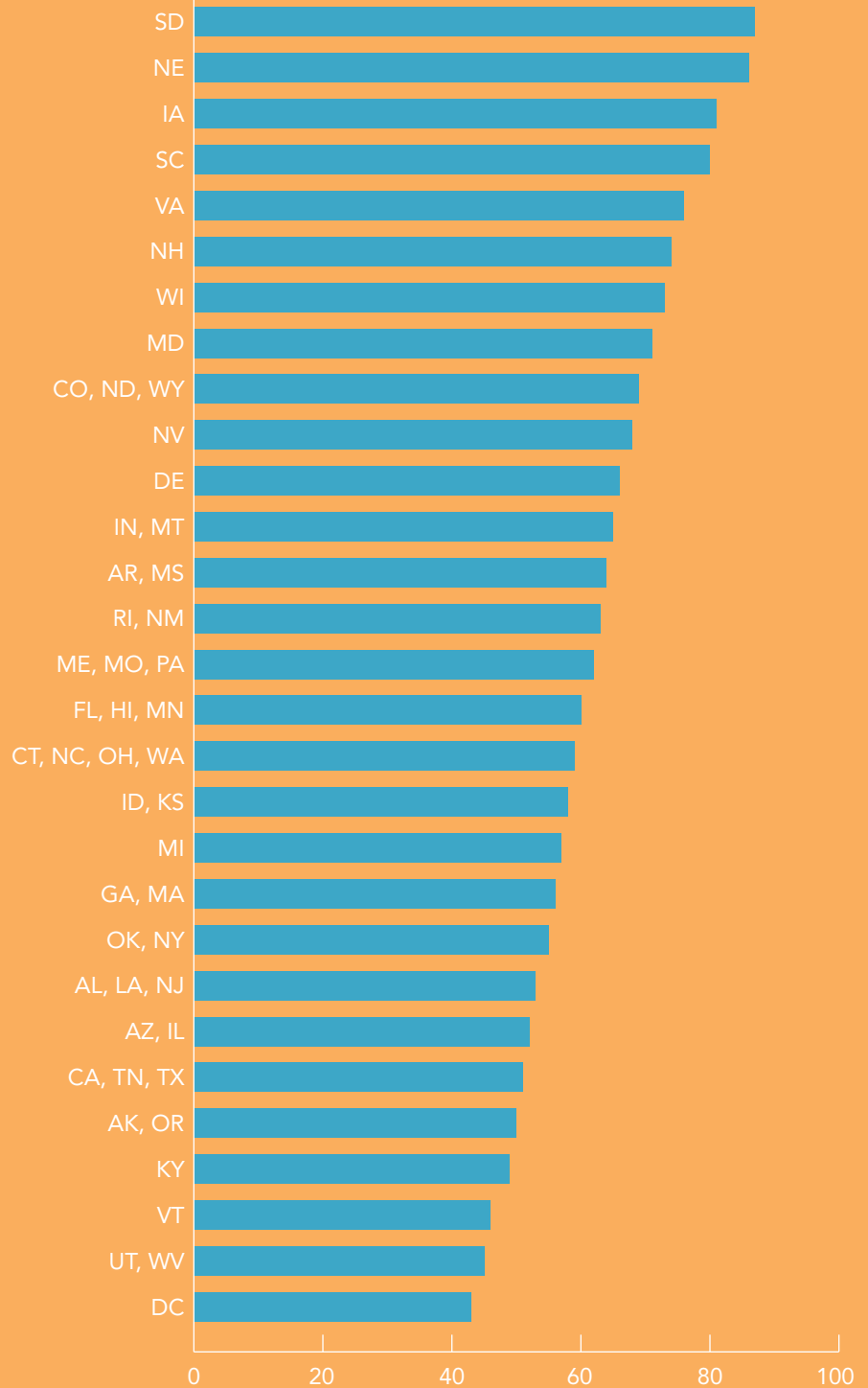
Table constructed using data from Chao, E. L., & Utgoff, K. P. (2005). *Women in the labor force: A databook*. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics.



Changes in federal welfare and child care policies, societal norms, job opportunities, family structure, and earning power are behind the increase in the percentage of mothers in the workforce.<sup>3</sup> Across the states, the percentage of mothers of children under the age of 3 who are in the workforce varies, with the proportion ranging from 43 percent in the District of Columbia to 87 percent in South Dakota (see Figure 2). In all but a few states, most women with infants and toddlers are employed. Nineteen states have labor force participation rates between 61 and 80 percent. In three states—South Dakota, Nebraska and Iowa—more than 80 percent of mothers of children under age 2 work outside of the home.

At the same time that mothers have increased their participation in the labor force, the number of young children has risen to levels not seen since the baby boom. In 2005 there were 2.3 million more infants and toddlers in the United States than in 1980.<sup>4</sup> Combined with maternal employment trends, it is not surprising that demand for infant/toddler care has risen dramatically.

Figure 2. Percent of Women with Children Ages 0 to 2 Who are Employed, by State, 2001



The percentage of employed mothers of infants and toddlers in individual states ranges from 43 to 87 percent.

Figure statistics compiled from information provided by the National Infant & Toddler Child Care Initiative @ Zero to Three through its *Key facts about children birth to 3 years, their families, and the child care system that serves them* website. Available at [http://www.zerotothree.org/site/DocServer/National\\_Profile\\_5.04.06a.pdf?docID=1782](http://www.zerotothree.org/site/DocServer/National_Profile_5.04.06a.pdf?docID=1782).

# The Supply of Infant and Toddler Care and Trends in Arrangements

Fortunately, the supply of out-of-home care for younger children has risen over the past several decades in response to these trends. In the mid-1970s, there were approximately 18,300 licensed child care centers.<sup>5</sup> By 1987, there were about 56,000.<sup>6</sup> In 2005, there were more than 105,000 licensed child care centers in the U.S., plus nearly 214,000 licensed family child care providers.<sup>7</sup> In short, the quantity of licensed child care appears to have risen sharply in response to increases in the percentage of mothers of young children who work outside of the home and the increased numbers of infants and toddlers. Nevertheless, many experts are concerned about the availability of care for infants and toddlers, especially high-quality care.

To explore concerns about the potential impact of preschool education policies on the supply of infant/toddler care, we begin by outlining recent trends in both sectors. We briefly review data on the:

- Number of children who are in non-parental care during the workweek;
- Enrollment in various types of child care by age;
- Amount of time infants and toddlers spend in these settings; and
- Trends in the availability of care for infants/toddlers and preschoolers over time.

We follow with a discussion of the role played by staff-child ratio regulations in quality and supply issues, as well as how public subsidies exacerbate problems in these areas.

**Numbers of infants and toddlers placed in child care.** In 1995 the U.S. Department of Education and the National Center for Education Statistics began tracking the number of children who are placed in the care of someone other than a parent at least once during the week. Just as maternal labor force participation has stabilized over the past decade,

so, too, has the percentage of infants and toddlers who are placed in the care of someone other than a parent. In 2005, out of a total of 12.2 million children between the ages of 0 and 2, about 6 million—or 49 percent—are in at least one non-parental weekly care arrangement. This includes 42 percent of all infants who are younger than 1 year old and 53 percent of children ages 1 and 2.<sup>8</sup> In 1995, 49 percent of children between the ages of 0 and 2 (44 percent of children under the age of 1 and 51 percent of all 1- and 2-year-olds) were cared for by someone other than a parent at least once a week.<sup>9</sup> In short, the percentage enrolled remained unchanged from 1995 to 2005. Therefore, the number of infants and toddlers in out-of-home care increased proportionate to the increase in population from 11.6 to 12.2 million.

### Types of care arrangements.

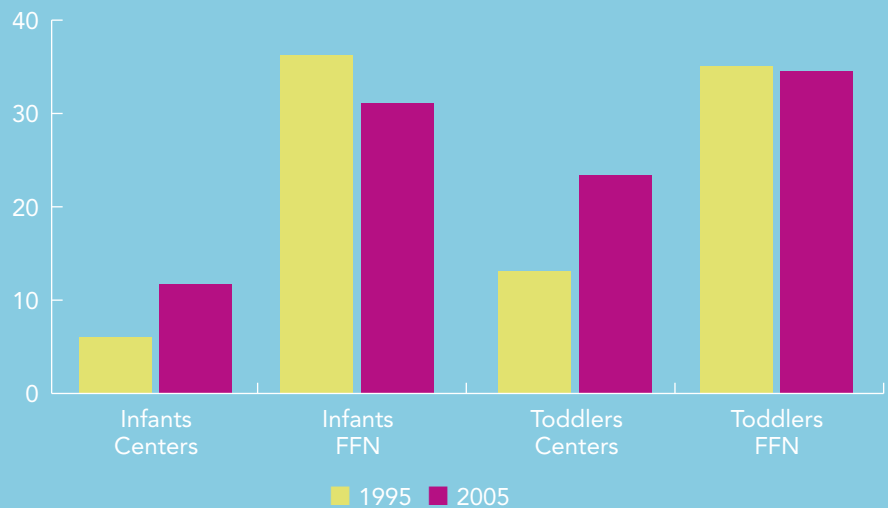
Parents of infants and toddlers use a variety of types of care, both formal and informal and in-home and away-

from-home. Recent data show that 12 percent of infants and 23 percent of toddlers are in center-based care. About one-third of children in both age groups are cared for by a relative or nanny, babysitter, or licensed family child care provider,<sup>10</sup> or what is sometimes referred to as “family, friend, or neighbor (FFN)” care<sup>11</sup> (see Figure 3).

There have been shifts in where care takes place since 1995. At that time only 6 percent of infants and 13.5 percent of toddlers were in center-based care.<sup>12</sup> The percent of children enrolled in FFN care has fallen slightly since then, but still appears to be the preferred care setting for children between the ages of 0 and 2. However, use of center-based care has nearly doubled. Because the numbers of children in these age ranges also increased, this means that the supply of infant/toddler care by centers more than doubled from 1995 to 2005.

Despite these shifts, the participation of children under age 3 in non-parental care has not reached

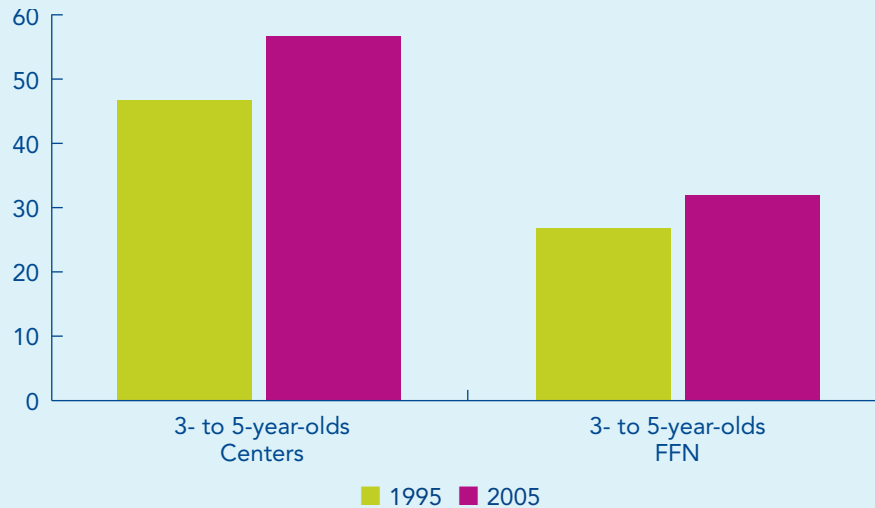
Figure 3. Trends in the Use of Center-Based and FFN Care for Infants and Toddlers



In 1995, 6 percent of infants and 13.5 percent of toddlers were enrolled in center-based care. These percentages rose to 12 and 23 percent, respectively, in 2005. The percentage of toddlers in licensed family, friend, or neighbor (FFN) care remained almost the same.

Figure constructed using data from Iruka & Carver (2006) and Hofferth et al. (1998).

Figure 4. Trends in the Use of Center-Based and FFN Care for Older Preschoolers



In 1995, 47 percent of 3- to 5-year-olds not yet in kindergarten were enrolled in center-based care and 27 percent were in FFN care. These percentages rose to 57 and 32 percent, respectively, in 2005.

Figure constructed using data from Iruka & Carver (2006) and Hofferth et al. (1998).

the levels of older preschoolers, where nearly 73 percent who are not yet in kindergarten have a non-parental care arrangement. In addition, older preschoolers are even more likely to be in a center-based program as compared to children under the age of 3 (see Figure 4).<sup>13</sup>

Participation of older preschoolers in both center and FFN care also has risen since 1995. At that time, 47 percent of this age group were in center-based care and 27 percent were cared for by a non-parental family member, babysitter, or by a licensed family child care provider.<sup>14</sup> By 2005, the figures were 57 and 32 percent, respectively.

**Hours in non-parental care.** For infants and toddlers who are in some type of non-parental child care arrangement at least once a week, the amount of non-maternal care across all settings is similar: an average of 31.1 hours for infants and 30.5 hours for toddlers.<sup>15</sup> However, the amount of time children spend in each specific type of care arrangement varies. While lower percentages of infants and toddlers are enrolled in center-based programs, those who do receive care in such a setting spend more hours there on average than in other types of arrangements (see Table 1).

Children under 3 attend centers

for much longer hours than older preschoolers. This reflects the much greater provision of part-day educational programs for older preschoolers.

**Overall supply.** As mentioned above, the supply of child care has risen dramatically over the last several decades with particularly large increases in center care for infants and toddlers as well as older preschoolers. Data from individual states also demonstrate how the supply of child care has expanded in just the last decade. Rhode Island saw an increase in the total number of licensed child care slots for children ages 5 and under from 11,779 in 1995 to 18,000 in 2004.<sup>16</sup> Nevada added more than 5,000 slots between 2000 and 2004.<sup>17</sup> The number of slots in Alameda County, California, grew from 45,455 in 1997 to 53,538 in 2001.<sup>18</sup>

While the supply of child care has risen to accommodate increased demand, the percentage of licensed slots for infants and toddlers is far lower than the percentage of slots for 3- to 5-year-olds in many parts of the country.<sup>19</sup> These differences appear to reflect a long-standing trend. For example, an examination of data from across the country in 1990 found that only 55 percent of centers accepted infants and toddlers.<sup>20</sup> The landmark *Costs, Quality, and Outcomes* study conducted in four states in the mid-1990s found that only 44 percent of centers served infants and toddlers.<sup>21</sup> Additional studies conducted between 1990 and 1997 provide evidence that infant/toddler care had lower enrollment rates as compared to programs for preschoolers.<sup>22</sup> As the situation today's families encounter in infant/toddler care is not a recent development, it cannot be attributed to recent changes in preschool education policy. Instead, it largely reflects a longstanding mismatch between the cost of providing quality center-based care and parents' ability to pay for it. In other words, the limited availability of quality infant/toddler care is fundamentally a problem of inadequate funding on the demand side even though problems can arise on the supply side.

Table 1. Mean Number of Weekly Hours Spent in Non-Parental Care by Type and Age

	Relative	Non-relative	Center
Infants	27.2	27.9	32.5
Toddlers	24.3	28.1	29.5
Preschoolers	23.2	24.5	22.5

Table constructed using data from Iruka, I. U., & Carver, P. R. (2006). *Initial results from the 2005 NHES Early Childhood Program Participation Survey (NCES 2006-075)*. Washington, DC: National Center for Education Statistics.

# Quality: The Role of Staff-Child Regulations and Public Subsidies

No matter if infants and toddlers are cared for by a parent, FFN provider, or in a licensed center, the period between birth and age 3 provides an important foundation for children’s cognitive, language, and social-emotional development.<sup>23</sup> Not surprisingly, the quality of care received from parents and non-parental caregivers makes important contributions to infant/toddler development.<sup>24</sup> Unfortunately, the quality of most center-based infant and toddler care has been found to be minimal to mediocre, rather than excellent to good, on a range of classroom quality measures.<sup>25</sup> Quality of family child care is no better, with only 9 percent considered to be good.<sup>26</sup>

Infant/toddler care can be a “double whammy” for families, as it is not only difficult to find quality care, but also expensive. According to recent data collected by the National Association of Child Care Resource and Referral Agencies,<sup>27</sup> the average annual fee for children between the ages of 0 and 2 enrolled in licensed child care centers and family child care homes ranges from a low of \$4,388 in Louisiana to a high of \$14,647 in Massachusetts. Average yearly fees exceed \$7,000 in 29 states. Among all 50 states and the District of Columbia, the average fee is \$8,150 per year. By comparison, the average

annual cost to families for a 3- or 4-year-old is \$6,423.<sup>28</sup>

### Group size and staff-child ratios.

Higher infant/toddler fees are partially related to the indoor furnishings and equipment needed, such as cribs, changing stations, strollers, and high chairs.<sup>29</sup> The most important reason for higher fees, however, is the maximum group size allowed in any classroom, as well as the required number of caregivers per child. Many studies find that observed quality in infant/toddler care is associated with standards for staff-child ratios and group size.<sup>30</sup> The large-scale National Institute of Child Health and Human Development (NICHD) study finds that when child care centers meet ratio standards, young children exhibit fewer behavior problems as well.<sup>31</sup> Data from the same study also demonstrate that meeting these group size recommendations results in more positive caregiving in family child care homes.<sup>32</sup>

As seen in Table 2, the National Association for the Education of Young Children recommends that to promote a high-quality environment, individual infant/toddler caregivers should not be responsible for more than four children when their ages are 28 months or younger, or six children when enrollees are older toddlers. Furthermore, total enrollment in any

classroom should be capped at eight children in a room serving infants up to 15 months, and 12 if children’s ages are between 21 and 36 months.<sup>33</sup>

A review of regulations for center group size and teacher-child ratios over the past 30 years indicates that state policies have incorporated more stringent requirements. In the mid-1970s, staff-child ratios for children under 2 years old ranged from 1 to 3.5 to 1 to 10, with the average being 1 to almost 7.<sup>34</sup> By 1994, the range was similar, but the average had dropped to just over 1 to 5.<sup>35</sup> By 1997, 33 states required a 1 to 3 or 1 to 4 ratio for infant classrooms.<sup>36</sup> Currently, 37 states require a 1 to 4 ratio or better in infant rooms and no state allows more than a 1 to 6 ratio. Thirty-nine states require ratios of 1 to 6 or better for toddler classrooms.<sup>37</sup>

### The impact of infant/toddler staff-child regulations on supply.

While staff-child standards are important contributors to classroom quality, research raises questions about the extent to which such regulations actually result in improved experiences for children. This is because they frequently are not applied in practice or child care providers make other adjustments in response to the new standards, such as reducing staff salaries.<sup>38</sup> Research demonstrates an

Table 2. Recommended Staff-Child Ratios for Infants, Toddlers, and Preschoolers

Age	Group Size							
	6	8	10	12	14	16	18	20
0-15 months	1:3	1:4						
12-28 months	1:3	1:4	1:4	1:4				
21-36 months		1:4	1:5	1:6				
3 years old					1:7	1:8	1:9	1:10
4 years old						1:8	1:9	1:10

Table constructed using data from National Association for the Education of Young Children. (2004). *Teacher-child ratios within group size*. Retrieved December 11, 2006 from [http://www.naeyc.org/accreditation/naeyc\\_accred/draft\\_standards/defs/groupsizes.html](http://www.naeyc.org/accreditation/naeyc_accred/draft_standards/defs/groupsizes.html).

association between staff wages and the quality of child care classrooms.<sup>39</sup>

In addition, improved staff-child standards tend to undermine the supply of care offered at a given price, or drive up the cost for a given level of supply (which can also result in reduced availability).<sup>40</sup> Both of these results are rooted in the effects on center costs and revenue of tighter teacher-child ratios. How they ultimately affect the supply of infant/toddler care is illustrated when comparing the differences in staff-child ratios in classrooms serving children ages 0 to 2 and 3- and 4-year-olds.<sup>41</sup> The average staff-child ratio in preschool classrooms is one adult for every 12.5 4-year-olds. As just explained, every state requires at least one caregiver for every six infants. Similar ratios are required in toddler classrooms in 39 states. If the number of adults (with similar qualifications and salaries) in any classroom is held constant, the potential revenue from an infant/ toddler classroom could be halved or more due to the lower number of children per adult permitted for this age group. Infant/toddler fees are on average more expensive than those for preschool-aged care, but are not high enough to compensate for a staff-child ratio that requires each staff member to care for half as many children as would be the case in a preschool classroom. Unless a provider relies on volunteer staff, remaining financially viable is likely to require one of three choices: passing on the increased costs to parents in the form of higher infant/toddler fees; maintaining current fees, but also reducing the number of infant/toddler classrooms; or reducing infant/toddler teacher wages to compensate for the decrease in revenue.

Two of these three choices can negatively affect the supply of infant/toddler classrooms. Obviously, maintaining the previous parent fee but also reducing the number of infant/toddler classrooms will decrease the supply. Lower staff wages constrain the ability of centers to hire and

Table 3. Average Annual Out-of-Pocket Child Care Expenses

	Type of Caregiver		
	Relative	Non-relative	Center
Infants	\$4,133	\$5,955	\$6,100
Toddlers	\$3,280	\$5,901	\$5,405
Preschoolers	\$2,743	\$4,680	\$3,897

Table constructed using data from Iruka & Carver (2006).

retain experienced and skilled personnel.<sup>42</sup> If centers have insufficient numbers of direct care staff for specific classrooms, they will be unable to maintain their current supply as well. Increasing parent fees to compensate for the increased cost per child can reduce the ability of parents to pay for such care, which in turn will reduce demand.<sup>43</sup>

**The role of federal subsidies in supply.** It should be noted that the fees described above represent full payment, but many parents do not pay the full price of care themselves. Nearly one in five families with young children report receiving some type of financial assistance for child care. The percentages are slightly higher for families with infants and toddlers (19 and 20 percent, respectively) than for older preschoolers (18 percent).<sup>44</sup>

Table 3 reports weekly expenditures by age group and type of care arrangement for parents of children between the ages of 0 and 5 who both use some type of non-parental care arrangement and report having an out-of-pocket cost. As can be seen, infant/toddler parents pay on average between \$3,280 and \$6,100 per year, compared with between \$2,743 and \$3,897 for older preschoolers. Compared to preschoolers, expenditures for infants and toddlers are 39 to 56 percent higher for center-based care and slightly more than 25 percent higher for non-relative care. This is only partially explained by the differences in hours.

In addition, it is interesting to note

that parental payments for center-based care are not more expensive than other forms of non-relative care, although both are much more expensive than relative care. This may be due to the receipt of child care subsidies that states pay to help reduce low-income parents' out-of-pocket child care costs and also enable them to obtain child care while they work or attend training. It is estimated that about 15 percent of children receive subsidized child care.<sup>45</sup>

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act<sup>46</sup> enables states to set maximum subsidy payments at less than the 75th percentile of market rates. In addition, subsidies in some states are based on outdated market rate surveys or constrain providers' ability to offer high-quality care.<sup>47</sup> Not surprisingly, a four-state study of almost 263 licensed child care centers serving low-income families found that 37 percent of providers reported that their state subsidy rate plus parent co-payment was less than what they would have collected from private-paying parent fees. The majority of this subset of providers (29 percent of the total sample) was located in the three states where subsidy ceilings fell below the 75th percentile.<sup>48</sup>

The levels at which subsidy payments are set undoubtedly play a role in the "ages-served" decisions made by child care businesses throughout the country. As noted above, only 20 percent of families with infants and toddlers receive subsidy assistance with their child care costs. However,

because families are far more likely to receive subsidy assistance if they are headed by a single mother of color with a high school diploma or less, looking for work, or earning \$25,000 or less per year,<sup>49</sup> subsidies may have

a profound impact on the supply of child care providers in low-income, minority communities. Studies conducted with early childhood stakeholders in low-income communities in California and Colorado revealed

that some child care providers had reduced the number of infant/toddler classrooms or closed down classrooms serving children in this age group because they couldn't cover their costs when accepting subsidies.<sup>50</sup>

## States' Efforts to Address Infant/Toddler Quality and Supply Issues

Coupled with an increased awareness of the effects of children's early experiences on their learning and development, issues related to quality and supply have prompted various initiatives to improve the quality of infant/toddler care available to families.

For example, Illinois is expanding its child development and family support program for at-risk infants and toddlers as part of their broader preschool/school readiness initiative known as Preschool for All. While a key focus of Preschool for All is a universal program for 3- and 4-year-olds, 11 percent of the funding stream—or more than \$35 million in fiscal year 2007 alone—is set aside for expanding and enhancing high-quality infant/toddler care.<sup>51</sup> The state has also published a *Resource Toolkit* to familiarize programs with the different research-based models that can be used as part of this initiative.<sup>52</sup> In addition, the document outlines Illinois' voluntary standards for infant/toddler programs,<sup>53</sup> which were formalized in 2002. Infant/toddler programs applying for Preschool for All funds must outline how their initiatives align with these standards.<sup>54</sup> In fiscal year 2008, group training and technical assistance was offered to interested program providers as a means for increasing their capacity to both complete a high-quality proposal for the competitive grant process and offer the services.<sup>55</sup>

While only a few states have established voluntary program standards for high-quality infant/toddler

programs,<sup>56</sup> over the past six years at least 22 have produced voluntary early learning guidelines for children ages 0 to 2 (see Table 4). These documents outline the skills and knowledge most children might be expected to have upon reaching certain developmental milestones.<sup>57</sup>

In addition, states are using federal Child Care and Development Fund (CCDF) dollars to improve infant/toddler care. While the majority of CCDF funds provide child care subsidies for low-income families,<sup>80</sup> since 1998 a portion has been earmarked specifically for improving the quality of infant/toddler care.<sup>81</sup> The earmark is used in a variety of ways. For example, 17 states have used CCDF funds to place infant/toddler specialists in child care resource and referral agencies and other organizations. These individuals provide on-site training and technical assistance to caregivers in order to improve program quality.<sup>82</sup>

CCDF funds are also being directed toward caregiver professional development activities.<sup>83</sup> Specialized training about infants and toddlers is an important component in program quality. However, studies of the infant/toddler workforce have shown that caregivers generally do not have a formal degree related to early childhood.<sup>84</sup> Because such knowledge has been shown to result in more stimulating and responsive care,<sup>85</sup> this is one additional way that states can enhance quality. Some states have also established specific infant/toddler credentials in an effort to increase the amount of formal training that focuses exclusively on

this age group and recognize caregivers that complete such training.<sup>86</sup> Additional dollars have been used to provide scholarships for caregivers to improve their education and training related to infant/toddler care and to encourage them to remain in their current programs once they do.<sup>87</sup>

States are also increasing infant/toddler care quality by using CCDF funds to strengthen Early Head Start (EHS)/child care initiatives.<sup>88</sup> EHS is a federally funded program for low-income children between the ages of 0 and 2 and designed to improve their cognitive and social-emotional development. An additional goal is to promote supportive parent-child relationships as a means of enhancing children's development. A major study of EHS demonstrates its impact on children's language and social-emotional development at age 3.<sup>89</sup> To meet Head Start Program Performance Standards,<sup>90</sup> EHS programs must have teacher-child ratios of 1 to 4 or better and limit their group sizes to eight infants and toddlers. Caregivers are required to attain a minimum of Child Development Associate credential.<sup>91</sup> EHS programs that meet these performance standards have a broader range of impacts on both child outcomes and parent behaviors than do programs that do not fully meet these standards.<sup>92</sup>

Many EHS programs have partnered with nearby child care facilities to help address participating families' child care needs. Some states have provided CCDF funds to child care partners that agree to meet EHS



program standards. Monies are used for such efforts as improving teacher-child ratios and paying for professional development and technical assistance for caregiving staff.<sup>93</sup>

Finally, a small number of states are attempting to increase the supply of higher quality infant/toddler care by using CCDF funds to increase the subsidy rate for children between the ages of 0 and 2 and by contracting directly with infant/toddler providers. Rather than giving parents a subsidy voucher to use at their provider of choice, the latter method involves

directly contracting with providers to ensure that specific communities or populations will have a stable supply of available slots. Because some states' contract rates are higher than subsidy rates, they can also require participating settings to meet certain quality standards.<sup>94</sup>

Of course, all of these programs will be at risk if CCDF funds remain level or are cut. While the infant/toddler quality set-aside totals only about 2 percent of all CCDF funds, less money will be proportionally available if annual increases do not

keep up with inflation. Recent trends suggest this is a potential issue. In fiscal year 2006, the infant/toddler earmark was reduced from \$99.2 million in the previous year to \$95.8 million.<sup>95</sup> The amount was increased to \$98.2 million in fiscal year 2007,<sup>96</sup> but then was reduced to \$96.5 million in fiscal year 2008.<sup>97</sup> In 2009, the federal American Recovery and Reinvestment Act provided \$2 billion for child care and more than \$1.1 billion for EHS in additional spending over two years.

Table 4. States with Voluntary Infant/Toddler Early Learning Guidelines

State	Title	Date
Alaska	State of Alaska Early Learning Guidelines <sup>58</sup>	2007
Arkansas	Arkansas Framework for Infant and Toddler Care <sup>59</sup>	2002
California	California Infant/Toddler Learning & Development Foundations <sup>60</sup>	2009
Connecticut	Connecticut's Guidelines for the Development of Early Learning for Infants and Toddlers (Draft) <sup>61</sup>	2005
Delaware	Delaware Infant and Toddler Early Learning Foundations: A Curriculum Framework <sup>62</sup>	2006
Florida	Florida Birth to Three Learning and Developmental Standards <sup>63</sup>	2004
Georgia	Georgia Early Learning Standards Birth Through Three <sup>64</sup>	2006
Indiana	Foundations to the Indiana Academic Standards for Young Children from Birth to Age 5 <sup>65</sup>	2006
Kansas	Kansas Early Learning Guidelines: A Developmental Sequence Building the Foundation for Successful Children (Draft) <sup>66</sup>	2006
Kentucky	Building a Strong Foundation for School Success: Kentucky's Early Childhood Standards <sup>67</sup>	2003
Louisiana	Louisiana's Early Learning Guidelines and Program Standards: Birth Through Three <sup>68</sup>	2005
Maine	Supporting Maine's Infants & Toddlers: Guidelines for Learning and Development <sup>69</sup>	n.d.
Maryland	Guidelines for Healthy Child Development and Care for Young Children (Birth – Three Years of Age) <sup>70</sup>	n.d.
Michigan	Early Childhood Standards of Quality for Infant and Toddler Programs <sup>71</sup>	2006
Minnesota	Early Childhood Indicators of Progress 2007: Minnesota's Early Learning Guidelines for Birth to 3 <sup>72</sup>	2007
Nebraska	Nebraska Early Learning Guidelines for Ages Birth to 3 <sup>73</sup>	2006
New Hampshire	New Hampshire Early Learning Guidelines <sup>74</sup>	2005
Ohio	Ohio's Infant and Toddler Guidelines (Draft) <sup>75</sup>	2006
Oregon	Oregon Early Childhood Foundations – Birth to 3 <sup>76</sup>	2007
Pennsylvania	Pennsylvania Early Learning Standards for Infants and Toddlers <sup>77</sup>	2007
Tennessee	Tennessee Early Childhood Early Learning Developmental Standards <sup>78</sup>	2004
Washington	Washington State Early Learning and Development Benchmarks: A Guide to Young Children's Learning and Development from Birth to Kindergarten Entry <sup>79</sup>	2005

# Empirical Evidence: The Effect of Preschool Education on the Supply of Infant/Toddler Care

In addition to the issues discussed above, some early childhood stakeholders have suggested that increased provision of state-funded pre-K programs negatively impacts the infant/toddler care sector. Just six years ago about 700,000 preschoolers were enrolled in such programs and spending topped out at just over \$2.4 billion.<sup>98</sup> Currently 38 states fund early education initiatives for more than 1.1 million prekindergarteners, the

majority of whom are 4 years old. Total spending across the country surpasses \$4.5 billion in state dollars alone.<sup>99</sup>

All 38 states with programs permit some mix of private and public provision. Twenty-nine states report pre-K enrollment by auspice, in a “mixed delivery” model for their pre-K initiatives, with classrooms in public schools, private child care centers, and Head Start agencies. Approximately

30 percent of state-funded pre-K children are in non-public school settings. In five states, the number of children served in private settings far outnumber those in public schools.<sup>100</sup>

Some stakeholders worry that state-funded pre-K programs negatively affect the supply of infant/toddler care. They are concerned that as more 4-year-olds enroll in state-funded programs, non-participating private centers are enrolling fewer tuition-paying enrollees. With providers taking in less preschool-specific revenue, the previously available, de facto “subsidy” for more expensive infant and toddler care would be reduced. The thinking is that this loss of preschool revenue decreases providers’ financial capacity to offer infant/toddler care at a price that is affordable to parents.<sup>101</sup>

The first half of this hypothesis has some merit. If parents have access to no-cost preschool education in settings with certified teachers, smaller class sizes, and better teacher-child ratios, non-participating centers may experience lower enrollments of tuition-paying preschoolers.<sup>102</sup> While the number of 3- and 4-year-olds in center-based early care and education programs doubled from about 2 million to 4 million between 1980 and 2005, most of the increase from 1990 to 2005 was in public programs.<sup>103</sup> Enrollment of preschoolers in private programs between 1990 and 2005 remained virtually unchanged.<sup>104</sup>

The consequences of this trend, however, are not clear. Most of the advances in public support for preschool education have been for 4-year-olds only. Parents do not have the same access to publicly funded preschool education for their 3-year-olds so that part of the market is unaffected. Also, the private settings that participate in state-funded preschool education programs typically are paid better for 4-year-olds than in the past.





Two small preliminary studies in New York have focused on the relationship between state-funded preschool and the supply of infant/toddler care. The first examined the perceptions of 41 state resource and referral agencies regarding the impact of the state's universal prekindergarten (UPK) program on the availability of infant/toddler child care. Sixty-four percent of respondents thought there had been no change. The remainder thought there had been little or some change. No respondent thought there had been major change.<sup>105</sup>

A second study<sup>106</sup> examined the perceptions of directors in 46 non-UPK participating, private centers throughout the state. While 39 percent of directors reported decreases in the numbers of 4-year-olds enrolled, 11 percent reported increases in the numbers of infants and toddlers

served. This at least suggests that increased access to publicly funded preschool education might actually increase access to centers for infants and toddlers. Centers may turn to infants and toddlers to fill in for the "missing" preschoolers.

Two additional theories link state-funded preschool with the supply of infant/toddler care. The first is that because per-child revenue in some state-funded preschools is higher than in the private sector, private child care businesses that are willing to meet a state's participation criteria may convert their infant/toddler classrooms into state-funded 3- and 4-year-old classrooms.<sup>107</sup> The second is that because teachers in private centers earn far less than their public school counterparts, better qualified infant/toddler teachers will leave their current jobs for employment in state-funded

programs, particularly in states with salary parity for participating private centers.<sup>108</sup> This, in turn, would reduce the capacity of centers to offer infant/toddler care, at least in the short term. Both hypotheses are of interest, but there is not yet any empirical evidence to support or contradict them. Moreover, both suggest problems that could resolve over time.

Taking everything into account, it is difficult to draw any clear conclusions about the relationship between state-funded preschool education and the supply of child care for infants and toddlers.

# Implications for Policymakers and Researchers

This report examines what we know about the potential impacts of state-funded preschool education on infant/toddler care. While the demand for care for younger preschoolers is primarily driven by the number of mothers in the labor force, the focus on facilitating children's development plays a role as well. Parents and policymakers are realizing that just as high-quality preschool can improve children's kindergarten readiness, high-quality infant/toddler care can enhance children's cognitive, language, and social-emotional development.

About half of infants and toddlers receive regular care from someone other than a parent. Much of this care takes place in family child care homes or in the home of a non-relative, rather than a center. It is not clear how much this reflects parental preference rather than a limited supply of infant/toddler slots in regulated centers. Many of these care arrangements do not have the quality to adequately support children's early development. Increases in public funding for preschool education programs may have affected the quantity of infant/toddler care in centers, but how much is not known. Demand for infant/toddler care has been little changed over the last decade, while the supply has expanded particularly in centers. At least through 2005 there is little evidence that the expansion of state pre-K has negatively influenced the supply of center care for younger children.

**Address access, quality, and cost issues.** Access to high-quality care for children under age 3 is an issue for many families. Infant/toddler care is relatively expensive, but quality care that has positive effects on children's development is hard to find. Therefore attention should be paid to improving access to *quality* care.

Infant/toddler subsidies should reflect the true cost of high-quality care in order to encourage an adequate supply for children in this age

group. This is especially critical in communities where large percentages of families rely on such subsidies, as these children are most at risk for later school failure and benefit most from increased access to high-quality care. Given the high cost of good infant/toddler care, middle-income families may also need substantial subsidies to access high-quality care.

## Designing better policies.

Whether or not preschool education has had negative effects on infant/toddler care in the past, state policies can ensure that future preschool education policies have positive influences on infant/toddler care. Designing a preschool education system to enhance, rather than disrupt, the effective provision of child care is certainly feasible.

Strategies for supporting infant/toddler care policy begin with planning that encompasses the entire early childhood period from birth to age 8. State early learning councils can develop policies for infrastructure, data systems, and professional development that begin with infants and extend into the early elementary years. Such efforts would take into account any potential consequences of preschool expansion on programs for older and younger children, including those in child care and Early Head Start. In addition, as states increase funding for preschool education, they can ensure that infant/toddler care remains financially viable through funding set asides and increases in child care subsidy rates. Particular attention should be paid to ensuring that salaries are adequate in child care and Early Head Start, as well as pre-K.

**Research to support policy-making.** Research and evaluation also have a role to play. Future studies should examine if turnover in the infant/toddler workforce is increased by teachers opting to work in state-financed programs for preschoolers, and if so, whether this is a short-term

problem related to new slots, or an ongoing issue. If research finds a long-term problem, policy interventions may be warranted.

Better data and research are needed at the state and local level to monitor the supply of quality infant/toddler care and assess the effects of pre-K and other policy decisions. For example, studies can identify characteristics of centers that do and do not participate in state-funded preschool initiatives, and the reasons that some centers do not participate. Other issues include the consequences of pre-K participation for center enrollment of infants and toddlers. Similarly, what are the consequences for those who care for and educate our youngest children?

## Determine the effectiveness of current infant/toddler initiatives.

While there are many questions that need to be addressed through future research, more attention is being paid to increasing the quality of infant/toddler care. States are expanding their preschool initiatives and developing early learning guidelines for infants and toddlers. They also are using federal funds to improve access to technical assistance and professional development. Increases in federal funding for child care and Early Head Start seem likely to continue for the next few years. However, there is much left to be learned about quality enhancement and effectiveness. Further research examining efforts to improve the supply of high-quality infant/toddler care would be valuable.

# References

- <sup>1</sup> Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press. Knitzer, J. (2001). Federal and state efforts to improve care for infants and toddlers. *The Future of Children*, 11(1), 79-97. Thompson, R. A. (2001). Development in the first years of life. *The Future of Children*, 11(1), 21-33.
- <sup>2</sup> U.S. Bureau of Labor Statistics, U.S. Department of Labor. (2005). *Charting the U.S. labor market in 2005*. Washington, DC: Author.
- <sup>3</sup> Blau, F. D., & Kahn, L. M. (2005). *Changes in the labor supply behavior of married women, 1980-2000*. Cambridge, MA: National Bureau of Economic Research. Hotchkiss, J. L. (2006). Changes in behavioral and characteristic determination of female labor force participation, 1975-2005. *Economic Review (2nd Quarter)*, 1-21.
- <sup>4</sup> U.S. Census Bureau. (2006). *Statistical Abstract of the United States: 2007* (126th Edition). Washington, DC: U.S. Government Printing Office.
- <sup>5</sup> Coelen, C., Glantz, E., & Calore, D. (1979). *Day care centers in the U.S.: A national profile 1976-1977*. Cambridge, MA: Abt Associates.
- <sup>6</sup> Blau, D. M. (2001). *The child care problem: An economic analysis*. New York: Russell Sage.
- <sup>7</sup> National Association for Regulatory Administration & National Child Care Information and Technical Assistance Center. (2007). *The 2005 child care licensing study: Final report*. Conyers, GA: Authors.
- <sup>8</sup> Iruka, I. U., & Carver, P. R. (2006). *Initial results from the 2005 NHES Early Childhood Program Participation Survey (NCES 2006-075)*. Washington, DC: National Center for Education Statistics.
- <sup>9</sup> Hofferth, S. L., Shauman, K. A., Henke, R. R., & West, J. (1998). *Characteristics of children's early care and education programs: Data from the 1995 National Household Education Survey*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- <sup>10</sup> Iruka & Carver (2006).
- <sup>11</sup> Porter, T. (2007). Assessing initiatives for family, friend, and neighbor child care. *Research Connections*, 5. New York: Research Connections Consortium.
- <sup>12</sup> Hofferth, S. L., & Phillips, D. A. (1987). Child care in the United States, 1970 to 1995. *Journal of Marriage and the Family*, 49, 559-571.
- <sup>13</sup> Iruka & Carver (2006).
- <sup>14</sup> Hofferth et al. (1998).
- <sup>15</sup> Iruka & Carver (2006).
- <sup>16</sup> Rhode Island KIDS COUNT. (2005). *2005 Rhode Island kids count factbook*. Providence, RI: Author.
- <sup>17</sup> Daneshvary, R., & Schwer, R. K. (2006). *Nevada KIDS COUNT data book: 2006*. Las Vegas: Author.
- <sup>18</sup> Kuiper, J., & Goldsmith, D. (2002). *Meeting the child care needs of Alameda County's children*. Oakland, CA: Author.
- <sup>19</sup> Burke, G., & Hale, S. (2002). *A snapshot of child care needs in Connecticut's cities and towns*. Rocky Hill, CT: United Way of Connecticut. Day Care & Child Development Council of Tompkins County, Inc. (2001). *Child care needs assessment & profile of child care in Tompkins County, May 2001*. Ithaca, NY: Author. Kuiper & Goldsmith (2002). Rhode Island KIDS COUNT. (2005). Rodgers, W. M., III, & Reynolds, S. (2005). *The economic impact of childcare in Middlesex County*. New Brunswick, NJ: John J. Heldrich Center for Workforce Development, Rutgers, The State University of New Jersey. Schragger, L., & Roswell, S. (2005). *Licensed child care in Washington state: 2004*. Olympia, WA: Division of Child Care and Early Learning, Economic Services Administration, Department of Social and Health Services.
- <sup>20</sup> Hofferth, S. L. (1995). Caring for children at the poverty line. *Children and Youth Services Review*, 17, 61-90.
- <sup>21</sup> Helburn, S., Culkin, M. L., Morris, J., Mocan, N., Howes, C., Phillipsen, L., Cryer, D., Peisner-Feinberg, E. S., Clifford, R., Bryant, D., Burchinal, M., Kagan, S. L., & Rustici, J. (1995). *Cost, quality, and child outcomes in child care centers (Technical report)*. Denver: University of Colorado, Department of Economics.
- <sup>22</sup> Siegel, G. L., & Loman, L. A. (1991). *Child care and AFDC recipients in Illinois: Digest of findings and conclusions*. St. Louis: Institute of Applied Research. United States General Accounting Office. (1997). *Welfare reform: Implications of increased work participation for child care*. Washington, DC: Author. Frederiksen-Goldsen, K. I., & Scharlach, A. E. (2001). *Families and work: New directions in the twenty-first century*. New York: Oxford University Press. United States General Accounting Office. (1995). *Welfare to work: Child care assistance limited; welfare reform may expand needs*. Washington, DC: Author.
- <sup>23</sup> Shonkoff & Phillips. (2000).
- <sup>24</sup> Burchinal, M. R., Roberts, J. E., Nabors, L. A., & Bryant, D. M. (1996). Quality of center child care and infant cognitive and language development. *Child Development*, 67, 606-620. NICHD Early Childhood Research Network. (2001). Nonmaternal care and family factors in early development: An overview of the NICHD study of early child care. *Applied Developmental Psychology*, 22, 457-492.
- <sup>25</sup> Burchinal, et al. (1996). Helburn et al. (1995). Pungello, E. P., & Kurtz-Costes, B. (1999). Why and how working women choose child care: A review with a focus on infancy. *Developmental Review*, 19, 31-96.
- <sup>26</sup> Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press.
- <sup>27</sup> National Association of Child Care Resource and Referral Agencies. (2007). *Parents and the high price of child care*. Retrieved April 2, 2008 from [http://www.naccrra.org/docs/press/price\\_report.pdf](http://www.naccrra.org/docs/press/price_report.pdf).
- <sup>28</sup> National Association of Child Care Resource and Referral Agencies. (2007).
- <sup>29</sup> Paulsell, D., Nogales, R., & Cohen, J. (2003). *Quality child care for infants and toddlers: Case studies of three community strategies*. Washington, DC: Zero to Three.
- <sup>30</sup> Love, J. M., Raikes, H., Paulsell, D., & Kisker, E. E. (2000). New directions for studying quality in programs for infants and toddlers. In D. Cryer & T. Harms (Eds.), *Infants and toddlers in out-of-home care* (pp. 117-162). Baltimore: Paul H. Brookes Publishing Co. Love, J. M., Schochet, P. Z., Meckstroth, A. L. (1996). *Are they in any real danger? What research does—and doesn't—tell us about child care quality and children's well-being*. Princeton, NJ: Mathematica Policy Research, Inc. Marshall, N. L., Creps, C. L., Burstein, N. R., Roberts, J., Glantz, F. B., & Robeson, W. W. (2004). *The cost and quality of full-day year-round early care and education in Massachusetts: Infant and toddler classrooms*. Wellesley, MA: Wellesley Centers for Women. NICHD Early Childhood Research Network. (1996). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly*, 11, 269-306. NICHD Early Childhood Research Network. (2000). Characteristics of quality of child care for toddlers and preschoolers. *Applied Developmental Science*, 4, 116-135.
- <sup>31</sup> NICHD Early Childhood Research Network. (1999). Child outcomes when child care center classes meet recommended standards for quality. *American Journal of Public Health*, 89, 1072-1077.
- <sup>32</sup> Clarke-Stewart, K. A., Vandell, D. L., Burchinal, M., O'Brien, M., & McCartney, K. (2002). Do regulable features of child-care homes affect children's development? *Early Childhood Research Quarterly*, 17, 52-86.
- <sup>33</sup> National Association for the Education of Young Children (2004). *Teacher-child ratios within group size*. Retrieved December 11, 2006 from [http://www.naeyc.org/accreditation/naeyc\\_accred/draft\\_standards/defs/groupsizes.html](http://www.naeyc.org/accreditation/naeyc_accred/draft_standards/defs/groupsizes.html)
- <sup>34</sup> Coelen et al. (1979).
- <sup>35</sup> Children's Defense Fund. (1995). *The state of America's children yearbook*. Washington, DC: Author.
- <sup>36</sup> LeMoine, S., Morgan, G., & Azer, S. L. (2002). *Child care licensing and regulation trends, 2002*. Vienna, VA: National Child Care Information Center.
- <sup>37</sup> National Association for Regulatory Administration & National Child Care Information and Technical Assistance Center. (2007).
- <sup>38</sup> Blau, D. M. (2007). Unintended consequences of child care regulations. *Labour Economics*, 14, 513-538.
- <sup>39</sup> Mocan, H. N., Burchinal, M., Morris, J. R., & Helburn, S. W. (1995). Models of quality in early childhood care and education. In S. W. Helburn (Ed.), *Cost, quality and child outcomes in child care centers: Technical report* (pp. 279-295). Denver: Department of Economics, Center for Research in Economic and Social Policy, University of Colorado at Denver. Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbott-Shim, M. (2000). Within and beyond the classroom door: Assessing quality in child care centers. *Early*

- Childhood Research Quarterly*, 15, 475-496. Phillipsen, L., Burchinal, M., Howes, C., & Cryer, D. (1997). The prediction of process quality from structural features of child care. *Early Childhood Research Quarterly*, 12, 281-304. Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares? Child care teachers and the quality of care in America: Executive summary*. Washington, DC: Center for the Child Care Workforce.
- <sup>40</sup> Blau (2007). Economic effects of quality regulations in the day-care industry. *American Economic Review*, 85, 419-424. Gormley, Jr., W. (1999). Regulating child care quality. *The Annals of the American Academy of Political and Social Science*, 563, 116-129. Gormley, Jr., W. T. (1991). State regulations and the availability of child-care services. *Journal of Policy Analysis and Management*, 10, 78-95. Hotz, V. J., & Kilburn, M. R. (1994). *Regulating child care: The effects of state regulations on child care demand and its cost*. Chicago: University of Chicago.
- <sup>41</sup> LeMoine, S., & Azer, S. (2005). *Child care licensing regulations (November 2005): Child:staff ratios and maximum group size requirements*. Alexandria, VA: National Child Care Information Center.
- <sup>42</sup> Mocan et al. (1995). Phillips et al. (2000). Phillipsen et al. (1997). Whitebook et al. (1989).
- <sup>43</sup> Barnett, W. S. (1992). An introduction to the economics of family home day care. In D. L. Peters & A. R. Pence (Eds.), *Family day care: Current research for informed public policy* (pp. 72-91). New York: Teachers College Press.
- <sup>44</sup> Iruka & Carver (2006).
- <sup>45</sup> Herbst, C. M., & Tekin, E. (2008). *Child care subsidies and child development (Working paper 14474)*, Cambridge, MA: National Bureau of Economic Research.
- <sup>46</sup> Public Law 104-193 (1996).
- <sup>47</sup> Schulman, K., & Blank, H. (2007). *State child care assistance policies 2007: Some steps forward, more progress needed*. Washington, DC: National Women's Law Center.
- <sup>48</sup> Adams, G., Rohacek, M., & Snyder, K. (2008). *Child care voucher programs: Provider experiences in five counties*. Washington, DC: The Urban Institute.
- <sup>49</sup> Iruka & Carver (2006).
- <sup>50</sup> Paulsell, D., Cohen, J., Stieglitz, A., Lurie-Hurvitz, E., Fenichel, E., & Kisker, E. (2002). *Partnerships for quality: Improving infant-toddler child care for low-income families*. Washington, DC: Zero to Three. Paulsell et al. (2003).
- <sup>51</sup> Mitchell, A. W. (2005). *Success stories: State investment in early care and education in Illinois, North Carolina, and Rhode Island*. Raleigh, NC: Smart Start's National Technical Assistance Center. Personal conversation with Margie Wallen, March 1, 2007. Shore, R. (2006). *Preschool for all: High quality early education for all of Illinois' children*. Springfield, IL: Illinois Early Learning Council. The Ounce of Prevention Fund. (n.d.). *Illinois' infant-toddler set-aside: What it is and how it works to promote school readiness*. Chicago: Author.
- <sup>52</sup> The Illinois Early Learning Council Birth to Three Program Quality Workgroup. (2006). *Resource toolkit for programs serving infants, toddlers, and their families: Implementing a research-based program model*. Springfield, IL: Illinois Early Learning Council.
- <sup>53</sup> Illinois State Board of Education. (2002). *Illinois birth to three program standards*. Springfield, IL: Author.
- <sup>54</sup> The Illinois Early Learning Council Birth to Three Program Quality Workgroup (2006).
- <sup>55</sup> Personal conversation with Margie Wallen, March 1, 2007.
- <sup>56</sup> For example, see Illinois State Board of Education. (2002). *Illinois birth to three program standards*. Springfield, IL: Author. Available at [http://www.isbe.state.il.us/earlychi/pdf/birth\\_three\\_standards.pdf](http://www.isbe.state.il.us/earlychi/pdf/birth_three_standards.pdf). Department of Social Services/Office of Family Support, Louisiana Head Start Collaboration Office, and the Louisiana Team of the National Infant Toddler Project. (2005). *Louisiana's early learning guidelines and program standards: Birth through three*. Baton Rouge, LA: Department of Social Services. Available at <http://www.dss.state.la.us/assets/docs/searchable/OFS/LAEarlyLearningGuide.pdf>. Michigan State Board of Education. (2006). *Early childhood standards of quality for infant and toddler programs*. Lansing, MI: Author. Available at [http://www.michigan.gov/documents/ECSQ-IT\\_8-18\\_171902\\_7.pdf](http://www.michigan.gov/documents/ECSQ-IT_8-18_171902_7.pdf).
- <sup>57</sup> Peterson, S., Jones, L., & McGinley, K. A. (2008). *Early learning guidelines for infants and toddlers: Recommendations for states*. Washington, DC: Zero to Three Policy Center. Scott-Little, C., Lesko, J., Martella, J., & Millburn, P. (2007). *Learning standards: Results from a national survey to document trends in state-level policies and practices*. *Early Childhood Research & Practice*, 9(1), online journal available at <http://ecrp.uiuc.edu/v9n1/little.html>.
- <sup>58</sup> Department of Education and Early Development, Division of Teaching and Learning Support, Office of Special Education, Head Start Collaboration Office, & Department of Health and Social Services, Division of Public Assistance, Child Care Program Office. (2007). *State of Alaska early learning guidelines: A resource for parents and early educators*. Juneau, AK: Department of Education and Early Development. Available at <http://www.hss.state.ak.us/dpa/programs/ccare/files/EarlyLearningGuidelines2008.pdf>
- <sup>59</sup> The Arkansas Framework for Infant and Toddler Care Work Group. (2002). *Arkansas framework for infant and toddler care*. Little Rock, AR: Arkansas Division of Child care and Early Childhood Education. Available at <http://www.arkansas.gov/childcare/generalpdf/infantframework.pdf>.
- <sup>60</sup> California Department of Education, Child Development Division. (2009). *California infant/toddler learning and development foundations*. Available at <http://www.cde.ca.gov/sp/cd/re/it09aavcontents.asp>.
- <sup>61</sup> Figueroa, A. (2005). *Guidelines for the development of early learning for infants and toddlers (Draft)*. Retrieved December 5, 2006 from <http://www.wheelerclinic.org/children/ELGdraft2forweb.pdf>
- <sup>62</sup> Delaware Department of Education. (2006). *Delaware infant and toddler early learning foundations: A curriculum framework*. Available at [http://www.doe.k12.de.us/files/pdf/earlychildhod\\_infant-toddler.pdf](http://www.doe.k12.de.us/files/pdf/earlychildhod_infant-toddler.pdf).
- <sup>63</sup> Florida Partnership for School Readiness. (2004). *Florida birth to three learning and developmental standards*. Available at <http://www.unf.edu/dept/file/PDF%20Folder/Birthto3.pdf>.
- <sup>64</sup> Georgia Early Learning Standards Team. (2006). *Georgia early learning standards birth through age 3*. Retrieved December 5, 2006 from <http://www.dec.state.ga.us/Documents/Child%20Care%20Services/GELS%20complete%20book.pdf>.
- <sup>65</sup> Indiana Department of Education and Family and Social Services Administration, Division of Family Resources, Bureau of Child Care. (2006). *Foundations to the Indiana academic standards for young children from birth to age 5*. Available at [http://www.doe.in.gov/primetime/docs/foundations/indiana\\_foundations.pdf](http://www.doe.in.gov/primetime/docs/foundations/indiana_foundations.pdf).
- <sup>66</sup> Kansas Early Learning Committee (2006). *Kansas early learning guidelines: A developmental sequence building the foundation for successful children (Draft)*. Retrieved December 5, 2006 from <http://www.srskansas.org/ISD/ees/Ccstateplan/Attachment5.2.1A.pdf>.
- <sup>67</sup> Kentucky Department of Education (2003). *Building a strong foundation for school success: Kentucky's early childhood standards*. Available at <http://www.kde.state.ky.us/NR/rdonlyres/E479F0D8-7278-4CD3-BF8C-75813E08E71C/0/FinalFullVersionKYECS-1-13-06.pdf>.
- <sup>68</sup> Department of Social Services/Office of Family Support, Louisiana Head Start Collaboration Office, and the Louisiana Team of the National Infant Toddler Project. (2005). *Louisiana's early learning guidelines and program standards: Birth through three*. Available at <http://www.dss.state.la.us/assets/docs/searchable/OFS/LAEarlyLearningGuide.pdf>.
- <sup>69</sup> Department of Health and Human Services. (n.d.). *Supporting Maine's infants & toddlers: Guidelines for learning and development*. Available at <http://www.maine.gov/dhhs/ocfs/ec/occhs/infanttoddlers.pdf>.
- <sup>70</sup> Good Start, Grow Smart Workgroup. (n.d.). *Guidelines for Healthy Child Development and Care for Young Children (Birth – Three Years of Age)*. Available at [http://www.mdchildcare.org/mdcfc/pdfs/Grow\\_smart\\_development.pdf](http://www.mdchildcare.org/mdcfc/pdfs/Grow_smart_development.pdf).
- <sup>71</sup> Michigan State Board of Education. (2006). *Early childhood standards of quality for infant and toddler programs*. Retrieved March 9, 2008 from [http://www.michigan.gov/documents/mde/ECSQ-IT\\_Final\\_180649\\_7.pdf](http://www.michigan.gov/documents/mde/ECSQ-IT_Final_180649_7.pdf).
- <sup>72</sup> Minnesota Department of Human Services & Department of Health. (2007). *Early Childhood Indicators of Progress 2007: Minnesota's Early Learning Guidelines for Birth to 3*. Author: St. Paul, MN.
- <sup>73</sup> Nebraska Department of Education. (2006). *Nebraska early learning guidelines for ages birth to 3*. Lincoln, NE: Author. Retrieved December 7, 2006 from [http://www.nde.state.ne.us/ech/ELGuidelines/ELG\\_IT.pdf](http://www.nde.state.ne.us/ech/ELGuidelines/ELG_IT.pdf).
- <sup>74</sup> Early Learning Guidelines Task Force, Child Development Bureau, Division for Children, Youth and Families, New Hampshire Department of Health and Human Services. (2005). *New Hampshire early learning guidelines*. Concord, NH: Author. Available at <http://www.dhhs.state.nh.us/DHHS/CDB/LIBRARY/Policy-Guideline/learning-guidelines.htm>.
- <sup>75</sup> Ohio Child Care Resource & Referral Association. (2006). *Ohio's*

- infant and toddler guidelines. Author: Columbus, OH. Available at [http://www.occrpa.org/files/infant\\_toddler/InfantToddlerGuides.pdf](http://www.occrpa.org/files/infant_toddler/InfantToddlerGuides.pdf).
- <sup>76</sup> Oregon Department of Education. (2007). Oregon early childhood foundations – Birth to 3. Retrieved April 4, 2008 from <http://www.ode.state.or.us/search/page/?id=1408> and <http://www.ode.state.or.us/search/page/?id=1352>.
- <sup>77</sup> Pennsylvania Department of Education & Department of Public Welfare. (2007). *Early learning standards for infants and toddlers*. Retrieved April 4, 2008 from [http://www.pde.state.pa.us/early\\_childhood/lib/early\\_childhood/Infant\\_Toddler\\_Standards\\_4\\_07.pdf](http://www.pde.state.pa.us/early_childhood/lib/early_childhood/Infant_Toddler_Standards_4_07.pdf).
- <sup>78</sup> Tennessee Department of Education. (2004). *Tennessee early learning developmental standards (TN-ELDS)*. Available at <http://www.state.tn.us/education/ci/earlychildhood/index.shtml>.
- <sup>79</sup> The State of Washington. (2005). *Washington state early learning and development benchmarks: A guide to young children's learning and development from birth to kindergarten entry*. Retrieved December 7, 2006 from <http://www.k12.wa.us/EarlyLearning/pubdocs/EarlyLearningBenchmarks.pdf>.
- <sup>80</sup> Pittard, M., Zaslow, M., & Porter, T. (2006). *Investing in quality: A survey of state Child Care and Development Fund initiatives*. Washington, DC: American Public Human Services Association & Child Trends.
- <sup>81</sup> Paulsell et al. (2002).
- <sup>82</sup> National Infant & Toddler Child Care Initiative at Zero to Three. (2006). *Keys to high quality child care for babies and toddlers: Infant/toddler specialists*. Washington, DC: Author. Schumacher, R., Hamm, K., Goldstein, A., & Lombardi, J. (2006). *Starting off right: Promoting child development from birth in state early care and education initiatives*. Washington, DC: Center for Law and Social Policy.
- <sup>83</sup> Child Care Bureau. (2004). *Keys to high quality child care for babies and toddlers: Caregiver education & training*. Washington, DC: Author.
- <sup>84</sup> Dennehy, J., & Marshall, N. L. (2005). *Workforce characteristics of infant and toddler caregivers in centers, family child care homes and Early Head Start programs: A Massachusetts capacity study research brief*. Wellesley, MA: Center for Research on Women. Fowler, S., Bloom, P. J., Talan, T. N., Beneke, S., & Kelton, R. (2008). *Who's caring for the kids? The status of the early childhood workforce in Illinois*. Wheeling, IL: The McCormick Tribune Center for Early Childhood Leadership, National-Louis University. Nelson, F. (2005). *Raising the bar in infant care: Helping teachers to improve their qualifications to work with infants and toddlers*. Trenton, NJ: New Jersey Infant Toddler Child Care Initiative, New Jersey Department of Human Services, Office of Early Care and Education.
- <sup>85</sup> Phillips, D., & Adams, G. (2001). Child care and our youngest children. *Future of Children*, 11(1), 35-51.
- <sup>86</sup> Child Care Bureau. (2006). *Keys to high quality child care for babies and toddlers: Infant toddler child care credentials, state examples*. Retrieved December 11, 2006 from [http://www.nccic.org/itcc/PDFdocs/IT\\_Credentials.pdf](http://www.nccic.org/itcc/PDFdocs/IT_Credentials.pdf).
- <sup>87</sup> Goldstein, A. (2006). State early care and education systems can support the healthy development of babies and toddlers. *Young Children*, (July), 30-32. Additional information obtained from the state profiles found on the National Child Care Information Center website, retrieved December 7, 2006 at <http://nccic.acf.hhs.gov/statedata/statepro/index.html>.
- <sup>88</sup> Schumacher, R., & DiLauro, E. (2008). *Building on the promise: State initiatives to expand access to Early Head Start for young children and their families*. Washington, DC: Center for Law and Social Policy.
- <sup>89</sup> Love, J. M., et al. (2004). *Making a difference in the lives of infants and toddlers and their families: The impacts of Early Head Start. Volume I: Final technical report*. Washington, DC: U.S. Department of Health and Human Services.
- <sup>90</sup> 45 CFR 1301-1311.
- <sup>91</sup> Hoffman, E., & Ewen, D. (2007). *Supporting families, nurturing young children: Early Head Start programs in 2006 (CLASP Brief No. 9)*. Washington, DC: Center for Law and Social Policy.
- <sup>92</sup> Love, J. M., Kisker, E. E., Ross, C., et al. (2005). The effectiveness of Early Head Start for 3-year old children and their parents: Lessons for policy and programs. *Developmental Psychology*, 41, 885-901.
- <sup>93</sup> Lombardi, J. (2001). Investing in better care for infants and toddlers: The next frontier for school readiness. *NCSL State Legislative Report*, 26(10). Paulsell et al. (2002). Schumacher & DiLauro. (2008). Schumacher, R., Hamm, K., Goldstein, A., & Lombardi, J. (2006). *Starting off right: Promoting child development from birth in state early care and education initiatives*. Washington, DC: Center for Law and Social Policy. Additional information obtained from the state profiles found on the National Child Care Information Center website, retrieved December 7, 2006 at <http://nccic.acf.hhs.gov/statedata/statepro/index.html>.
- <sup>94</sup> Matthews, H., (2008). *Child care and development block grant participation in 2006*. Washington, DC: Center for Law and Social Policy. Matthews, H. (2008). *Infants and toddlers in the child care and development block grant program*. Washington, DC: Center for Law and Social Policy. Matthews, H., & Schumacher, R. (2008). *Ensuring quality care for low-income babies: Contracting directly with providers to expand and improve infant and toddler care (CLASP Policy Paper No. 3)*. Washington, DC: Center for Law and Social Policy.
- <sup>95</sup> Statistics compiled from data found on the National Child Care Information Center website.
- <sup>96</sup> Administration for Children and Families. (2007). *FY 2007 CCDF final allocations (including reallocated funds)*. Retrieved April 4, 2008 from [http://www.acf.hhs.gov/programs/ccb/law/allocations/current/state2007/final\\_allocations2007.htm](http://www.acf.hhs.gov/programs/ccb/law/allocations/current/state2007/final_allocations2007.htm).
- <sup>97</sup> Administration for Children and Families. (2008). *FY 2008 CCDF final allocations (based on appropriation)*. Retrieved April 4, 2008 from [http://www.acf.hhs.gov/programs/ccb/law/allocations/current/state2008/est\\_fin\\_all\\_2008.htm](http://www.acf.hhs.gov/programs/ccb/law/allocations/current/state2008/est_fin_all_2008.htm).
- <sup>98</sup> Barnett, W. S., Robin, K., Hustedt, J. T., & Schulman, K. L. (2003). *The state of preschool: 2003 state preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- <sup>99</sup> Barnett, W. S., Epstein, D.J., Friedman, A. H., Boyd, J. S., & Hustedt, J. T. (2008). *The state of preschool 2008: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- <sup>100</sup> Barnett et al. (2008).
- <sup>101</sup> United States Government Accountability Office. (2004). *Prekindergarten: Four selected states expanded access by relying on schools and existing providers of early education and care to provide services*. Washington, DC: Author.
- <sup>102</sup> Edwards, J. H. Y., Fuller, B., & Liang, X. (1996). The mixed preschool market: Explaining local variation in family demand and organized supply. *Economics of Education Review*, 15, 149-161.
- <sup>103</sup> U.S. Census Bureau. (2007). *Current population survey reports 1999-2005 (Detailed tables)* and *Historical school enrollment reports*. Retrieved July 23, 2007 from <http://www.census.gov/population/www/socdemo/school.html>.
- <sup>104</sup> U.S. Census Bureau. (2007).
- <sup>105</sup> Lekies, K. S., Hietzman, E. H., & Cochran, M. (2001). *Early care for infants and toddlers: Examining the broader impacts of universal prekindergarten*. Ithaca, NY: Cornell Early Childhood Program.
- <sup>106</sup> Morrissey, T. W., Lekies, K. S., & Cochran, M. M. (2007). Implementing New York's universal pre-kindergarten program: An exploratory study of systemic impacts. *Early Education and Development*, 18, 573-596.
- <sup>107</sup> Rodgers, W. M., III, & Reynolds, S. (2005). *The economic impact of child-care in Middlesex County*. New Brunswick, NJ: John J. Heldrich Center for Workforce Development, Rutgers, The State University of New Jersey.
- <sup>108</sup> Lombardi, J., Cohen, J. Stebbins, H., Lurie-Hurvitz, E. Chernoff, J. J., Denton, K., Abbey, R., & Ewen, D. (2004). *Building bridges from prekindergarten to infants and toddlers: A preliminary look at issues in four states*. Washington, DC: Zero to Three.

by Debra J. Ackerman and W. Steven Barnett

Debra J. Ackerman, Ph.D., is Associate Director for Research at NIEER. Her research focuses on early education policy issues.

W. Steven Barnett, Ph.D., is Director of NIEER and a Board of Governors Professor at Rutgers University. His research focuses on the long-term effects of preschool programs on children's learning and development, the educational opportunities and experiences of young children in low-income urban areas, and benefit-cost analyses of preschool programs.

[Does Preschool Education Policy Impact Infant/Toddler Care?](#) is issue 20 in a series of briefs developed by the National Institute for Early Education Research. It may be used with permission, provided there are no changes in the content.

Available online at [nieer.org](http://nieer.org).

This document was prepared with the support of The Pew Charitable Trusts. The Trusts' *Advancing Pre-Kindergarten for All* initiative seeks to advance high quality prekindergarten for all the nation's three- and four-year-olds through objective, policy-focused research, state public education campaigns and national outreach. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The Pew Charitable Trusts.



NATIONAL INSTITUTE FOR  
EARLY EDUCATION RESEARCH

120 Albany Street, Suite 500 New Brunswick, New Jersey 08901  
(Tel) 732-932-4350 (Fax) 732-932-4360

Website: [nieer.org](http://nieer.org)

Information: [info@nieer.org](mailto:info@nieer.org)

