

## What Do We Know About the Impact of Publicly Funded Preschool Education on the Supply and Quality of Infant/Toddler Care?

by

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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 to which those efforts may have helped or hindered programs for infants and toddlers. This brief reviews what we know about the impact of publicly funded preschool education on the supply of infant and toddler care, including:

- The availability and use of infant/toddler care;
- Influences on the supply of infant/toddler care and how today's supply compares to historical trends; and
- Potential links between preschool education policies and the supply and quality of infant/toddler care.

### *What We Know*

- The percentage of mothers in the workforce and the supply of child care have increased dramatically over the past 35 years, but the number of licensed infant/toddler slots has not kept pace.
- Regulated, high-quality infant/toddler care costs more than comparable care for preschoolers.
- Public subsidies do not always cover the true cost of infant/toddler care and exacerbate quality and supply problems.
- Improving the quality of infant/toddler care is receiving increased attention throughout the United States.

### *Implications*

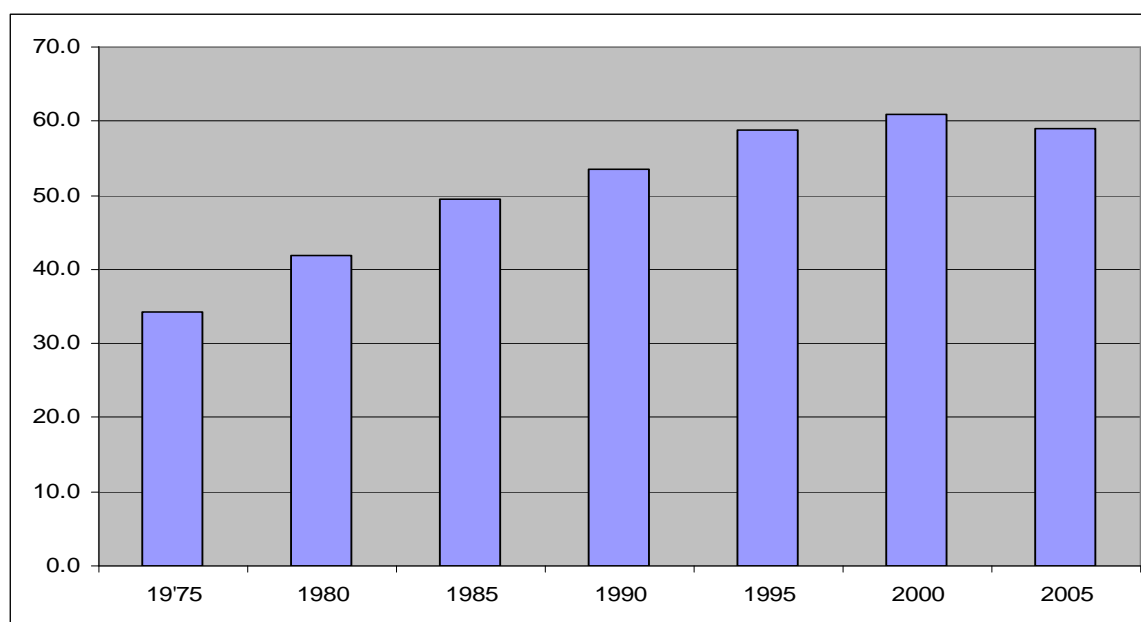
- The cost of providing high-quality infant/toddler care constrains its availability, as does the ability of parents to pay for it. Policymakers should consider interventions that encourage an adequate supply of quality care for our youngest children.
- Infant/toddler care has the potential to enhance children's development. However, this potential is not realized when subsidy policy stresses quantity over quality.
- Research is needed on 1) how often infant-toddler classrooms are being converted into state-funded preschool classrooms, 2) how many infant/toddler teachers are leaving to work in state-financed programs for 4-year olds; and 3) what circumstances and policies contribute to or prevent such problems.

### *The Demand for Infant/Toddler Care*

Before examining which factors influence the supply of infant/toddler care, it is useful to understand the context driving the demand for such care. Some of the demand is related to 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 and 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>

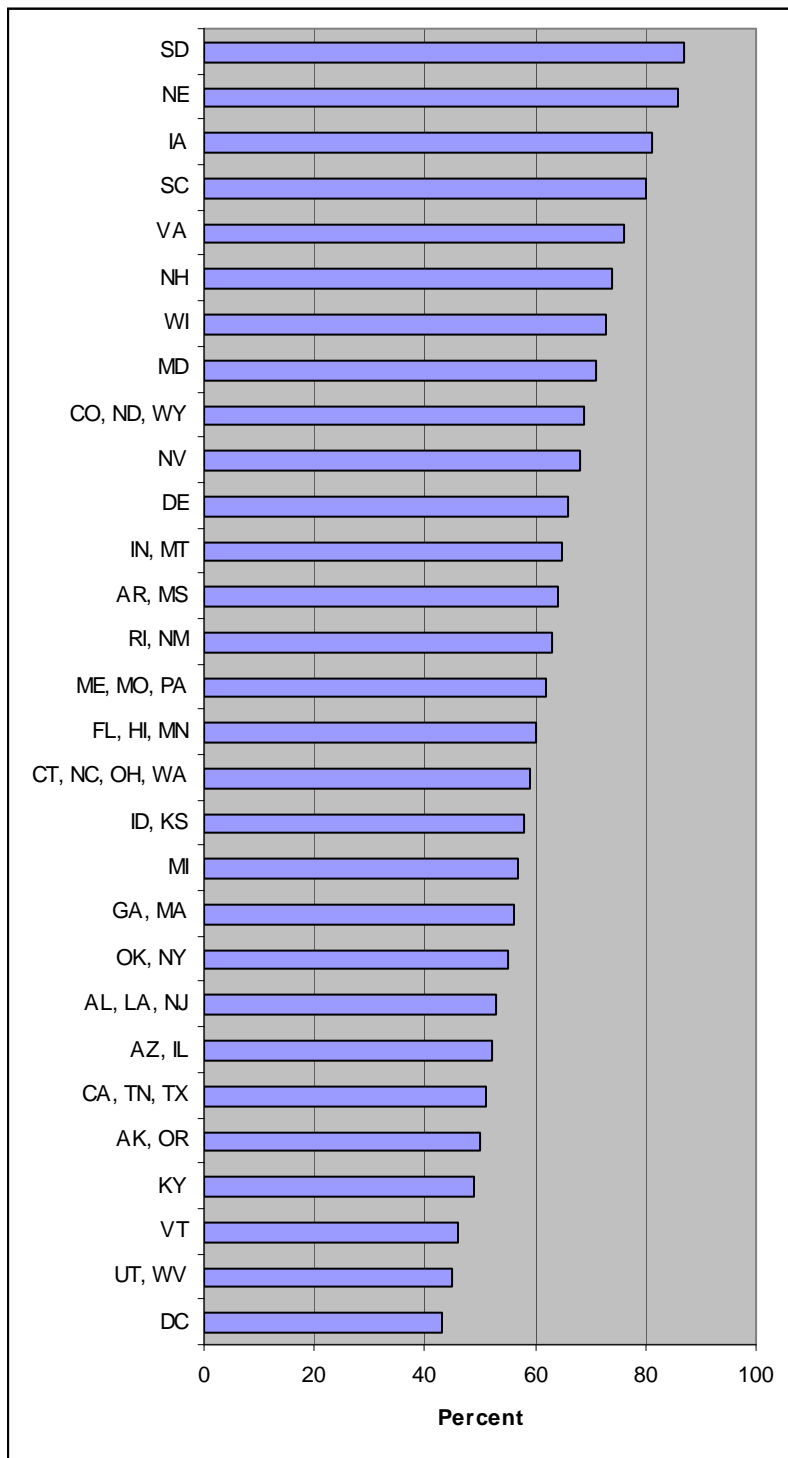
Figure 1. Percentage of Women with Children Under the Age of 3 in the Labor Force<sup>3</sup>



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

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>4</sup> Across states the percentage of mothers who are both in the workforce and have children under the age of 3 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 2 work outside of the home.

Figure 2. Percent of Employed Women with Children Ages 0 to 2 by State, 2001<sup>5</sup>



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

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>6</sup> Combined with maternal employment trends, it is not surprising that demand for infant/toddler care has risen dramatically.

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>7</sup> By 1987, there were about 56,000.<sup>8</sup> Currently there are more than 105,000 licensed child care centers in the U.S., plus almost 214,000 licensed family child care providers.<sup>9</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.

### ***What Do We Know About the Use and Availability of Infant & Toddler Care?***

Any assessment of the potential impact of preschool education on the supply of infant/toddler care must begin with a basic understanding of recent trends and current conditions. Thus, we briefly review data on the:

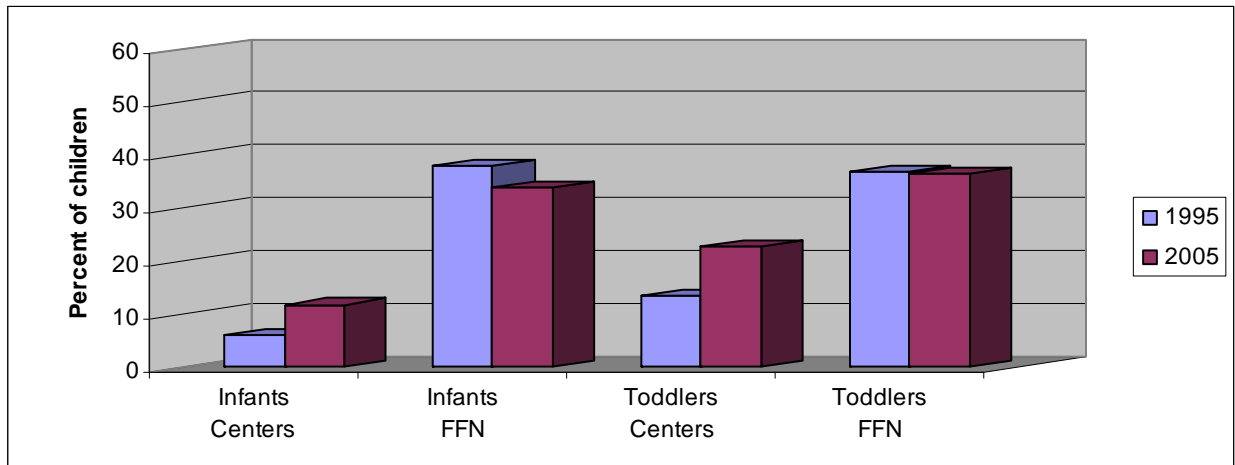
- Number of children who are in non-parental care during the workweek;
- Types of licensed care parents choose;
- Amount of time infants and toddlers spend in these settings; and
- Differences in the availability of care for infants/toddlers and preschoolers.

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 & Toddlers Placed in Child Care.*** In 1995 the U.S. Department of Education and National Center for Education Statistics began tracking the number of children who are placed in the care of someone other than a parent during the workweek. 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. Currently, out of a total of 11.6 million children between the ages of 0 and 2, about 5.7 million—or 49 percent—are in at least one non-parental weekly care arrangement. This includes 42 percent of all infants who are less than one year old and 53 percent of children ages 1 and 2.<sup>10</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>11</sup> Because the overall percentage has remained the same, this indicates that the number of infants and toddlers in out-of-home care has increased proportionate to the population.

***Types of care arrangements.*** Parents of infants and toddlers utilize 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, or what is sometimes referred to as “family, friend, or neighbor (FFN)” care<sup>12</sup> (see Figure 3).<sup>13</sup>

Figure 3. Trends in the Use of Center-Based and FFN Care for Infants and Toddlers<sup>14</sup>

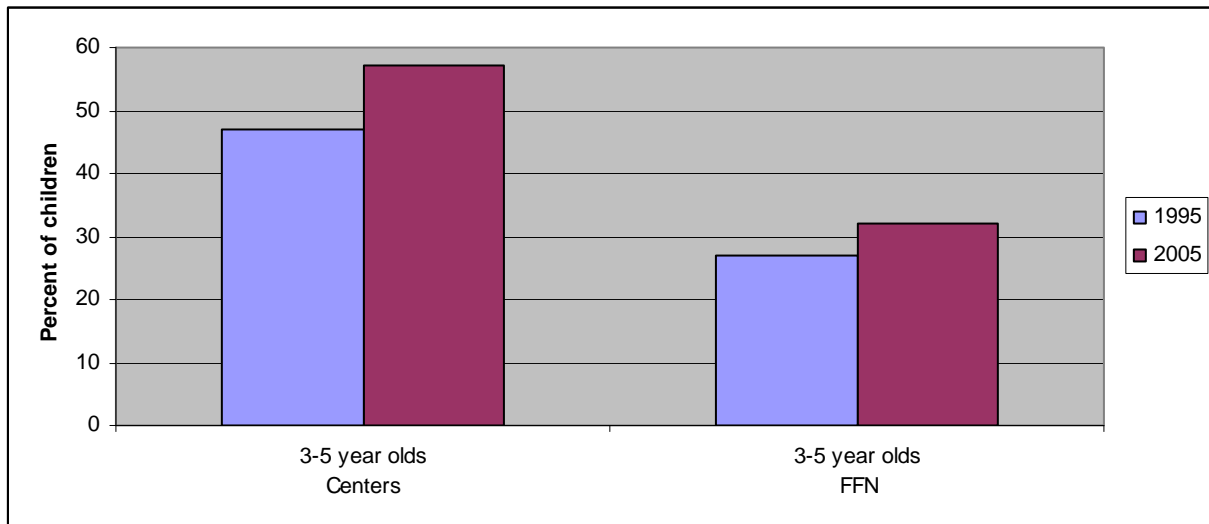


In 1995, 6 percent of infants and 13.5 percent of toddlers were enrolled in center-based care. These percentages rose to 12 and 23 percent, respectively, in 2005. The percentage of toddlers in licensed family, friend, or neighbor (FFN) care remained almost the same.

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>15</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 essentially 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 over the past decade.

Despite these shifts, the participation of children under age 3 in non-parental care has not reached 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 three (see Figure 4).<sup>16</sup>

Figure 4. Trends in the Use of Center-Based and FFN Care for Older Preschoolers<sup>17</sup>



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.

Participation of older preschoolers in both center and FFN care has also 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>18</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>19</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).

Table 1. Mean Number of Weekly Hours Spent in Types of Non-Parental Care<sup>20</sup>

	Relative	Non-relative	Center
Infants	27.2	27.9	32.5
Toddlers	24.3	28.1	29.5

**Overall supply.** As mentioned above, the supply of child care has risen dramatically over the last several decades in response to the growing population of both children under the age of five and mothers of the young children in the labor force. 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 five and under from 11,779 in 1995 to 18,000 in 2004.<sup>21</sup> Nevada added more than 5,000 slots between 2000 and 2004.<sup>22</sup> The number of slots in Alameda County, California, grew from 45,455 in 1997 to 53,538 in 2001.<sup>23</sup>

While the supply of child care has risen in proportion to increased demand, the percentage of licensed slots for infants and toddlers is far lower than the percentage of slots for 3-5 year olds in many parts of the country.<sup>24</sup> These differences appear to reflect a long-standing trend. For example, an examination of data from across the country in 1990<sup>25</sup> found that only 55 percent of centers accepted infants and toddlers. The landmark *Costs, Quality, and Outcomes* study<sup>26</sup> conducted in four states in the mid-1990s found that only 44 percent of centers served infants and toddlers. Additional research studies conducted between 1990 and 1997 also provide evidence that infant/toddler care had lower enrollment rates as compared to programs for preschoolers.<sup>27</sup> In summary, the difficulties today's families encounter in finding licensed infant/toddler care are not a recent development. What remains unclear is whether this situation is due to parental preference for FFN care, a mismatch between the cost of providing quality, center-based care and parents' ability to pay for it (and thus influencing demand and supply), or a combination of both factors.

### ***Quality and Supply: 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>28</sup> Not surprisingly, the quality of care received from parents and non-parental caregivers makes important contributions to infant/toddler development.<sup>29</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>30</sup> Quality of family child care is no better, with only 9 percent considered to be good.<sup>31</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>32</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>33</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>34</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>35</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>36</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>37</sup>

As can be 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 4 children when their ages are 28 months or less, or 6 children when enrollees are older toddlers. Furthermore, total enrollment in any classroom should be capped at 8 children in a room serving infants up to 15 months, and 12 if children’s ages are between 21 and 36 months.<sup>38</sup>

Table 2. Recommended Staff-Child Ratios for Infants, Toddlers, and Preschoolers<sup>39</sup>

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

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>40</sup> By 1994, the range was similar, but the average had dropped to just over 1 to 5.<sup>41</sup> By 1997, 33 states required a 1 to 3 or 1 to 4 ratio for infant classrooms.<sup>42</sup> Currently 37 states require a 1 to 4 ratio or less 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>43</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>44</sup> Research demonstrates an association between staff wages and the quality of child care classrooms.<sup>45</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>46</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 – 2 and 3- and 4-year olds. The average staff-child ratio in preschool classrooms is one adult for every 12.5 4-year-olds.<sup>47</sup> As just explained, every state requires at least one caregiver for every 6 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.

Each 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. Preserving the same quantity of classrooms, but also increasing parent fees to compensate for lost revenue can reduce the ability of parents to pay for such care, which in turn will reduce demand.<sup>48</sup> Finally, lower staff wages constrain the ability of centers to hire and retain experienced and skilled personnel.<sup>49</sup> If centers have insufficient numbers of direct care staff for specific classrooms, they will be unable to maintain their current supply, as well.

***The role of federal subsidies in supply.*** It should also 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), as well.<sup>50</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 utilize 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 just over 25 percent higher for non-relative care.

Table 3. 2005 Average Annual Out-of-Pocket Child Care Expenses (\$) <sup>51</sup>

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

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>52</sup>

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act <sup>53</sup> enables states to set maximum subsidy payments at less than the 75<sup>th</sup> percentile of market rates. In addition, the subsidies in some states are based on outdated market rate surveys or constrain providers' ability to offer high-quality care. <sup>54</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 the subsidy ceilings fell below the 75<sup>th</sup> percentile. <sup>55</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>56</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>57</sup>

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

Coupled with an increased awareness of the effect of children’s early experiences on their learning and development, issues related to quality and supply have prompted stakeholders to advocate for, and states to implement 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 over \$35 million in fiscal year 2007 alone—is set aside for expanding and enhancing high quality infant/toddler care.<sup>58</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>59</sup> In addition, the document outlines Illinois’ voluntary standards for infant/toddler programs,<sup>60</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>61</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>62</sup>

While only a few states have established voluntary program standards for high-quality infant/toddler programs,<sup>63</sup> over the past six years at least 22 have created 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>64</sup>

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

State	Title	Date
Alaska	State of Alaska Early Learning Guidelines <sup>65</sup>	2007
Arkansas	Arkansas Framework for Infant and Toddler Care <sup>66</sup>	2002
California	Desired Results for Children & Families <sup>67</sup>	2003
Connecticut	Connecticut’s Guidelines for the Development of Early Learning for Infants and Toddlers (Draft) <sup>68</sup>	2005
Delaware	DE Infant and Toddler Early Learning Foundations: A Curriculum Framework <sup>69</sup>	2006
Florida	Florida Birth to Three Learning and Developmental Standards <sup>70</sup>	2004
Georgia	Georgia Early Learning Standards Birth to Three <sup>71</sup>	2006
Indiana	Foundations to the Indiana Academic Standards for Young Children from Birth to Age 5 <sup>72</sup>	2006
Kansas	Kansas Early Learning Guidelines: A Developmental Sequence Building the Foundation for Successful Children (Draft) <sup>73</sup>	n.d.
Kentucky	Building a Strong Foundation for School Success: Kentucky’s Early Childhood Standards <sup>74</sup>	2003
Louisiana	Louisiana’s Early Learning Guidelines and Program Standards: Birth Through Three <sup>75</sup>	2005
Maine	Supporting Maine’s Infants & Toddlers: Guidelines for Learning and Development <sup>76</sup>	n.d.

Maryland	Guidelines for Healthy Child Development and Care for Young Children (Birth – Three Years of Age) <sup>77</sup>	n.d.
Michigan	Early Childhood Standards of Quality for Infant and Toddler Programs <sup>78</sup>	2006
Minnesota	Early Childhood Indicators of Progress 2007: Minnesota’s Early Learning Guidelines for Birth to 3 <sup>79</sup>	
Nebraska	Nebraska Early Learning Guidelines for Ages Birth to 3 <sup>80</sup>	2006
New Hampshire	New Hampshire Early Learning Guidelines <sup>81</sup>	2005
Ohio	Ohio’s Infant and Toddler Guidelines (Draft) <sup>82</sup>	2006
Oregon	Oregon Early Childhood Foundations – Birth to 3 <sup>83</sup>	2007
Pennsylvania	Pennsylvania Early Learning Standards for Infants and Toddlers <sup>84</sup>	2007
Tennessee	Tennessee Early Childhood Early Learning Developmental Standards <sup>85</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>86</sup>	2005

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>87</sup> since 1998 a portion has been earmarked specifically for improving the quality of infant/toddler care.<sup>88</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 & referral agencies and other organizations. These individuals provide on-site training and technical assistance to caregivers in order to improve program quality.<sup>89</sup>

CCDF funds are also being directed toward caregiver professional development activities.<sup>90</sup> Specialized training about infants and toddlers is an important component in program quality. However, studies<sup>91</sup> of the infant/toddler workforce have shown that caregivers generally do not have a formal degree related to early childhood. Because such knowledge has been shown to result in more stimulating and responsive care,<sup>92</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>93</sup> Additional dollars have been used to provide scholarships for caregivers to improve their education and training relating to infant/toddler care and to encourage them to remain in their current programs once they do.<sup>94</sup>

States are also increasing infant/toddler care quality by using CCDF funds to strengthen Early Head Start (EHS)/child care initiatives.<sup>95</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>96</sup> To meet Head Start Program Performance Standards,<sup>97</sup> EHS programs must have teacher-child ratios of 1 to 4 or better and limit their group sizes to 8 infants and toddlers. Caregivers are required to attain a minimum of Child Development Associate credential.<sup>98</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>99</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 reducing teacher-child ratios and paying for professional development and technical assistance for caregiving staff.<sup>100</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>101</sup>

Of course, all of these programs will be at risk if CCDF funds remain level or are cut. While the infants/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>102</sup> The amount was increased to \$98.2 million in fiscal year 2007,<sup>103</sup> but then was reduced to \$96.5 million in fiscal year 2008.<sup>104</sup>

### ***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>105</sup> Currently 38 states fund early education initiatives for over 1 million pre-kindergarteners, the majority of whom are 4-years old. Total spending across the country surpasses \$3.7 billion in state dollars alone.<sup>106</sup>

At least 30 states use a "mixed delivery" model for their pre-K initiatives, with classrooms operated by public schools, private child care centers, and Head Start agencies. In states that count pre-K enrollment by auspice, about 40 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 outnumbers those in public schools.<sup>107</sup>

Some stakeholders claim that state-funded pre-K programs negatively affect the supply of infant/toddler care through a two-step process. First, it is assumed that as more 4-year olds enroll in state-funded programs, non-participating private centers are enrolling fewer tuition-paying enrollees. Then, because providers presumably are taking in less preschool-specific revenue, the previously available, de facto "subsidy" for more-expensive infant and toddler care is also being reduced. The thinking is that this loss of preschool revenue therefore decreases providers' financial capacity to offer infant/toddler care at a price that is affordable to parents.<sup>108</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 lower teacher-child ratios, non-participating centers may experience lower enrollments of tuition-paying preschoolers.<sup>109</sup> In fact, while the number of 3- and 4-year olds enrolled in center-based early care and education programs doubled from about 2 million to more than 4 million between 1980 and 2005, almost all of the increase from 1990 to 2005 was reported by parents to be in public programs.<sup>110</sup>

At the same time, however, overall enrollment of preschoolers in private programs between 1990 and 2005 has remained virtually unchanged.<sup>111</sup> In addition, most of the advances in public support for preschool education have been for 4-year olds only. This means parents do not have the same access to publicly funded preschool education for their 3- year olds. The private settings that participate in state-funded preschool education programs are paid public dollars to offer this service, as well. Moreover, enrollment of 4-year olds in state-funded preschool initiatives would seem to free up slots for infants and toddlers in FFN care. What conclusions can we therefore draw about the relationship between the supply of state-funded preschool education and child care for infants and toddlers?

We can not yet definitely answer that question, as only two small preliminary studies in New York have focused on this issue. The first examined the perceptions of 41 state resource and referral agencies regarding the impact of the state's universal pre-kindergarten (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>112</sup>

A second study<sup>113</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. If centers cannot find more infants and toddlers to fill in for the "missing" preschoolers," this suggests there is limited demand for their services.

Two additional theories link state-funded preschool with a limited 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 will convert their infant/toddler classrooms into state-funded 3- and 4-year old classrooms.<sup>114</sup> The second premise argues that because teachers in private centers earn far less than their public school counterparts, 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>115</sup> This, in turn, would reduce the short-term capacity of centers to offer infant/toddler care. Once again, while both hypotheses are of interest, there is not yet any empirical evidence to support or contradict either of them. Moreover, both suggest only short-term problems that would be resolved over time.

### ***Implications for Policymakers and Researchers***

The purpose of this report was to examine what we know about the potential impacts of state-funded preschool education (which is mainly targeted at 4-year olds) on infant/toddler care. While the demand for care for younger preschoolers is primarily driven by the numbers 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.

A significant number of infants and toddlers are cared for by someone other than a parent during much of the workweek. 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 if this reflects parental preference, a limited supply of infant/toddler slots in regulated centers, or both. Research tells us that many of these settings do not have the level of quality that will support children's early development. We also know that despite the increases in public funding for preschool education programs, the quantity of infant/toddler care generally and in centers has increase over the last decade. What, then, are the implications of this larger context for policymakers and researchers?

***Address access, quality, and cost issues.*** Policymakers must recognize that the lack of high-quality care for children under 3 is an issue that impacts children and families. Given what we know about the effects of care quality on children's development, child care policy should not focus primarily on increasing slots. Rather, attention must also be paid to improving access to quality care.

Of course, addressing both supply and quality necessarily entails addressing the high cost of providing infant/toddler care. Policymakers should consider providing infant/toddler subsidies that reflect the true cost of high-quality care in order to encourage an adequate supply for children in this age group. This might be especially critical in communities where large percentages of families rely on such subsidies, as these children are most at risk for later school failure. Given what parents already pay for infant/toddler care, programs serving middle-class families may also need subsidies to meet higher quality standards.

***Determine the effect of state-funded preschool education on the broader field.*** Research provides little guidance as to whether preschool education has had negative, positive, or neutral effects on infant/toddler care. Nevertheless, states should strive to ensure that preschool education policies have positive—and avoid negative—influences on child care generally and infant/toddler care specifically. Child care and preschool education inevitably intersect and the potential exists for both positive and negative effects. Designing a preschool education system so that it works with, rather than disrupts the effective provision of child care is certainly feasible. Doing so in ways that enhance child care quality would be even more desirable.

Since many states are seeking to expand targeted preschool programs for 4-year olds into universal initiatives, these are policy issues worth examining. Studies should also examine if turnover in the infant/toddler workforce is specifically related to 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 demonstrates a growing, long-term problem, public policy interventions within the private sector may be warranted.

Because child care and preschool education involve the private and public sectors, there are additional supply and demand questions that policymakers should investigate. For example, what are the characteristics of centers that choose to participate in state-funded preschool initiatives, and what are the reasons that some centers do not participate? What are both the benefits and the consequences of those decisions for families with infants and toddlers? Similarly, what are the benefits and 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, it does appear that more attention is being paid to increasing the quality of infant/toddler care in this country. States are expanding their preschool initiatives and developing early learning guidelines for infants and toddlers. They are also using federal funds to improve programs' access to technical assistance and caregiver professional development. This is clearly a positive development, but there is much left to be learned about the specifics of these quality enhancement initiatives, as well as their effectiveness. Further research examining states' efforts to improve both the quality and supply of infant/toddler care is needed. Studies should also examine whether state Birth – 5 systems can more easily impact quality and supply for all age groups. Such studies will, in turn, be informative as states seek to distribute scarce funding in the most effective manner.

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