



Education Commission
of the States

FULL • DAY kindergarten

A Study of State Policies in the United States
Education Commission of the States





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Written by Kristie Kauerz.

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The information in this report is based on policy research conducted by the Education Commission of the States, including a comprehensive review of state statutes related to kindergarten in all 50 states and a survey of kindergarten specialists in each state department of education. Most of the state policy data reported here can be accessed online at www.ecs.org/kindergarten in ECS' Kindergarten Database and in a series of 50-state *StateNotes*. These online resources are updated as state policies change.

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EXECUTIVE SUMMARY

While kindergarten has been delivered primarily as a half-day program since the Great Depression of the 1930s, fundamental changes in American society and education over the past 20 years support a greater emphasis on full-day kindergarten. Today, full-day kindergarten offers several potential benefits. It provides continuity for children accustomed to full-day experiences outside of the home, provides continuity with schedules in 1st grade and beyond, reduces the number of disruptions and transitions children experience in a typical day, and allows teachers more time for both formal and informal instruction that provide meaningful learning opportunities. It also provides an important opportunity to align the policies and practices of the grades that follow kindergarten with those of the early learning programs that typically come before.

Furthermore, results of empirical research on the effects of full- versus half-day kindergarten are encouraging. Studies not only show full-day programs have no detrimental effects on children who attend, but students show significantly stronger academic gains over the course of the kindergarten year than their counterparts in half-day programs.¹ While more research is needed to show the long-term benefits involved, the existing body of literature on the effects of full-day kindergarten establishes it as an important component for state policymakers to include as they strengthen early academic settings and work to close achievement gaps.

This report provides a state policy overview of full-day kindergarten in the United States. It is intended, however, to accomplish more than simply describing current policies. Based on an Education Commission of the States' (ECS) review, the report identifies four key areas where states need to strengthen their full-day kindergarten policies. In particular, ECS' study shows that most states:

- 1 Lack policies that provide definitional *clarity* on what is full-day kindergarten
- 2 Lack policies that provide universal *access* to full-day kindergarten
- 3 Lack adequate *funding* policies for full-day kindergarten
- 4 Lack policies that adequately address the *quality* of full-day programs.

For each of these four areas, the report discusses efforts that state policymakers should undertake to better position full-day kindergarten as an important experience for student learning and development.

Definitional Clarity

- State policymakers should ensure the minimum number of instructional days and the number of daily instructional hours of full-day kindergarten are defined in statute.
- To maintain continuity in children's schedules, the level of required daily instructional hours should take into consideration the length of day that children typically experience in full-day pre-kindergarten programs and in 1st grade.

Universal Access

- To better understand how state policy affects access for various subpopulations of children, state education agencies should collect data on district offerings of full-day kindergarten programs and on the demographic characteristics of enrolled children.
- State policymakers should enact consistent statewide policies requiring school districts to offer full-day kindergarten.

Adequate Funding

- State policymakers should create strong incentives in state school funding formulas for school districts to offer full-day kindergarten programs. Such incentives should include providing more funding for full-day kindergarten than is provided for half-day programs and assigning at least the same funding weight to children in full-day kindergarten that is provided to 1st graders.
- When there are insufficient resources for states to guarantee universal access to full-day kindergarten, state policymakers should implement categorical programs that encourage districts to offer full-day kindergarten to targeted populations such as at-risk students.

Quality

- State policymakers should ensure learning standards for kindergarten are created and aligned both with early learning standards and standards for 1st grade and beyond.
- Learning standards for kindergarten should be implemented comprehensively across five key domains: physical and motor development, social/emotional development, approaches toward learning, cognitive development, and language/literacy development.
- Qualifications for full-day kindergarten teachers – and professional development opportunities that support them – should meet national recommendations

and include specialized education in child development and the education of young children.

For each of the above areas, the report presents information graphically showing where state policies across the country currently stand. The information contained herein identifies, outlines and addresses key areas where full-day kindergarten policies can be strengthened. States can use this report to learn from other states' experiences and to work cooperatively towards the development of full-day kindergarten policies that provide a strong and coherent continuum of early education for all young children in this nation.

COMPLEMENTARY RESOURCES ON FULL-DAY KINDERGARTEN

Overview of state policies related to kindergarten in general (both half-day and full-day):

- **Kauerz, Kristie.** "State Kindergarten Policies: Straddling Early Learning and Early Elementary School." *Beyond the Journal: Young Children on the Web*, March 2005. Available online at <http://www.journal.naeyc.org/btj/200503/01Kauerz.pdf>.
- **Education Commission of the States.** *Kindergarten Policies Database 2004*, from <http://www.ecs.org/kindergarten/kindergartendatabase>.

Overview of the difference between full-day and half-day kindergarten across the United States, focusing on the schools – both public and private – that offer these programs and the children who attend them:

- **Walston, Jill and Jerry West.** *Full-Day and Half-Day Kindergarten in the United States: Findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99*. Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2004. Available online at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2004078>.

Overview of empirical research on the academic and social outcomes of half-day versus full-day kindergarten:

- **Ackerman, Debra J., W. Steven Barnett and Kenneth B. Robin.** *Making the Most of Kindergarten: Present Trends and Future Issues in the Provision of Full-Day Programs*. New Brunswick, NJ: National Institute for Early Education Research (NIEER), Rutgers University, 2005. Available online at <http://nieer.org/docs/index.php?DocID=118>.
- **DeCesare, Dale.** "Full-Day Kindergarten Programs Improve Chances of Academic Success." In *The Progress of Education Reform*, vol. 5, no. 4. Denver, CO: Education Commission of the States, September 2004. Available online at <http://www.ecs.org/clearinghouse/54/83/5483.pdf>.

Overview of aligning full-day kindergarten with both early learning and primary school policies (increasingly, this alignment is being called "P-3 Education," signifying the connections that are needed from pre-kindergarten through 3rd grade):

- **Foundation for Child Development.** *Mapping the P-3 Continuum (Map)* Foundation for Child Development, 2005. Available at <http://www.ffcd.org/ourwork/f-index.html>.
- **Education Commission of the States.** *P-16 Issue Site*, 2004. Available at <http://www.ecs.org/p-16>.

INTRODUCTION

Over the past 15 years, the American public's discourse about education improvement has prominently included young children's learning and development. Bolstered by increased scientific evidence that the first years of life are particularly critical in terms of brain development,² as well as by research that shows that high-quality early care and education helps to close achievement gaps between children in lower and higher socio-economic levels,³ many policymakers have begun to expand and improve early learning programs.*

Countless policy reports cite Goal One of the National Education Goals Panel (NEGP) – that “by the year 2000 all children in America will start school ready to learn” – as a key foundation for expanding public policy related to early learning. Often referred to as the “Readiness Goal,” Goal One has been used to promote, among other things, creation of state-funded pre-kindergarten programs, increased funding for child care and expansion of Head Start. Rarely mentioned in policy reports or public discussions, however, are the precursors to the Readiness Goal – reports prepared in the late 1980s by the Southern Regional Education Board (SREB) and the former Office of Educational Research and Improvement (OERI) in the U.S. Department of Education. The SREB report's first goal stated that “All children will be ready for the 1st grade”⁴ and OERI's Goal One called for “All 6-year-olds [to be] ready for 1st grade.” Both the SREB and OERI reports contributed to the ultimate development of the National Education Goals. Central to the earlier goal statements, but not explicit in the NEGP version, is the importance of kindergarten as a critical year for preparing children to succeed in 1st grade and beyond.

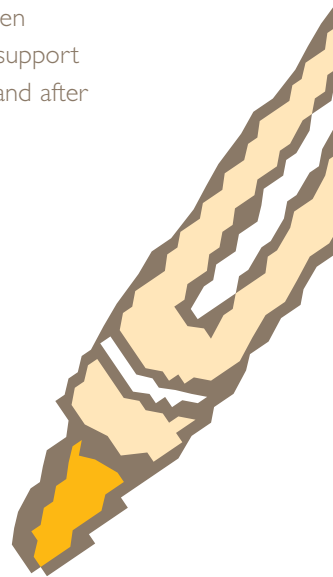
* Throughout this report, the term “**early learning**” is used to encompass the full range of services and programs used by families to educate and nurture their children from birth to school entry. These programs are funded and administered by a diverse range of public agencies and private (both nonprofit and for-profit) providers. Early learning programs encompass child care, family child care, preschool, pre-kindergarten, Head Start and Early Head Start. All these programs and providers should be considered and included in discussions about public policy that benefits young children.

Kindergarten should not be an overlooked school year.⁵ In fact, recent compelling research shows that by the time children enter kindergarten there are substantial cognitive differences by race, ethnicity and socio-economic status.⁶ Kindergarten also is a critical year because it is widely considered a “bridge year” between early learning programs and primary school, intended to enhance children's cognitive, physical and social development to smooth the transition into formal schooling.⁷

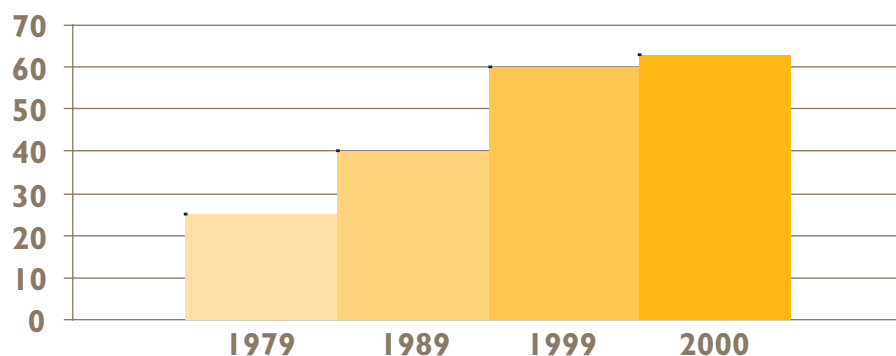
Although considered a standard beginning year of the American public education system in the United States, kindergarten is not aligned with the policies and practices of the grades that follow. Similarly, even though kindergarten is considered an integral part of children's early learning experiences and there is much discussion of transitioning from pre-kindergarten programs, kindergarten is not aligned with the policies and practices of the early learning programs that precede it. If kindergarten is truly the entrance into the American public education system, state policymakers should ensure coherence between kindergarten policies and the policies that address children's learning experiences both before and after the kindergarten year.

Recommendations:

- State policymakers should ensure kindergarten is included in their overall school readiness visions and plans.
- State policymakers should ensure kindergarten policies connect and align with policies that support children's learning experiences both before and after the kindergarten year.



Percentage of Children in Full-Day Kindergarten



WHY FOCUS ON FULL-DAY KINDERGARTEN?

Of the four million children enrolled in kindergarten in 2000, nearly 63% were enrolled in a full-day program in either a public or private setting.⁸ The level of enrollment in full-day kindergarten has been steadily increasing over the past 25 years. In 1979, only 25.1% of kindergartners were enrolled in full-day programs; in 1989, the percentage had increased to 40%; and by 1999, 60% of kindergartners were in full-day programs (see graph above).⁹

Although kindergarten has been delivered primarily as a half-day program since the Great Depression of the 1930s, fundamental changes in American society and education over the past 20 years support a greater emphasis on full-day kindergarten.

- For children, full-day kindergarten is important. With an estimated 69% of the nation's kindergartners having attended center-based preschool,¹⁰ kindergarten no longer serves as an "entry point" to formal, full-day, out-of-home education for most young children. Today, many children experience full-day early learning programs before attending kindergarten. As a result, full-day kindergarten provides continuity for children who are accustomed to full-day experiences outside the home as well as continuity with schedules in 1st grade and beyond.
- For families, full-day kindergarten is important. An overwhelming number of American families need someone to care for their children while parents and other caregivers work. These families need safe, stable, nurturing, high-quality settings in which their children can spend time each day. To stabilize children's schedules, many parents favor full-day kindergarten because it reduces the number of disruptions and transitions children experience in a typical day.
- For teachers, full-day kindergarten is important. Full-day programs allow teachers more time for both formal and informal instruction that provides meaningful learning opportunities and encourage not only cognitive development but also physical and social-emotional development.

A SNAPSHOT OF FULL-DAY KINDERGARTEN IN THE UNITED STATES

- Sixteen states define full-day kindergarten in statute.
- Nine states require school districts to offer full-day kindergarten programs.
- Two states require children to attend full-day kindergarten.
- Seven states provide school districts with a strong financial incentive to offer full-day kindergarten.
- Nineteen states provide school districts with a financial disincentive to offer full-day kindergarten.

Results of empirical research on the effects of full- versus half-day kindergarten generally show full-day programs have no detrimental effects on children who attend.¹¹ Indeed, full-day kindergarten students show significantly stronger academic gains over the course of the kindergarten year than their counterparts who attend half-day kindergarten.

Recent findings from the *Early Childhood Longitudinal Study – Kindergarten Class of 1998-99*, a major nationally representative data set, shows that children who participated in full-day kindergarten made statistically significant gains in both reading and mathematics when compared to children who participated in half-day programs. These findings hold true even after adjusting for gain score differences associated with race/ethnicity, poverty status, prior reading and math abilities, gender, class size, amount of time for subject-area instruction, and the presence of an instructional aide.¹²

The research is mixed on the long-term benefits – extending into primary school and beyond – of attending full-day kindergarten; additional methodologically rigorous research is needed to confirm the extent and duration of positive outcomes. Nonetheless, the existing body of literature on the effects of full-day kindergarten establishes it as an important component for state policymakers to include as they strengthen children's early academic settings and work to close achievement gaps.

Recommendation:

- State policymakers should include full-day kindergarten as a crucial component of their early learning and elementary school reform efforts.

WHY FOCUS ON STATE-LEVEL PUBLIC POLICY?

State policies do not – and, indeed, cannot – prescribe the varied experiences that children have with teachers, peers and their environment during kindergarten. Nonetheless, state policies do define the public's expectations for a program's accessibility, equity and quality. Public policy serves to provide a state with information about itself, its decision-makers and its priorities.¹³ Explicit state-level policies establish a foundation for program implementation and define what kinds of programs, with what level of quality, should be made available to which children. Supportive state policies, therefore, are a necessary – but not a sufficient – variable in ensuring high-quality full-day kindergarten programs are available to all children.

An Education Commission of the States' (ECS) review of state policies related to full-day kindergarten reveals widespread evidence that states need to strengthen their policy focus on expanding and improving full-day kindergarten opportunities for young children. In particular, ECS' study shows that most states:

- 1 Lack policies that provide definitional *clarity* on what is full-day kindergarten
- 2 Lack policies that provide universal *access* to full-day kindergarten
- 3 Lack adequate *funding* policies for full-day kindergarten
- 4 Lack policies that adequately address the *quality* of full-day programs.

The remainder of this report will examine each of these areas in greater detail, providing both a snapshot of what is happening across the 50 states as well as recommendations for state policymakers who desire to improve public policy on full-day kindergarten.

Recommendation:

- State policymakers should strengthen state policies that address full-day kindergarten, thereby providing a solid foundation for the countless teachers, principals and other professionals who implement kindergarten programs on a day-to-day basis.

FOUR KEY AREAS NEEDED TO STRENGTHEN STATE POLICY

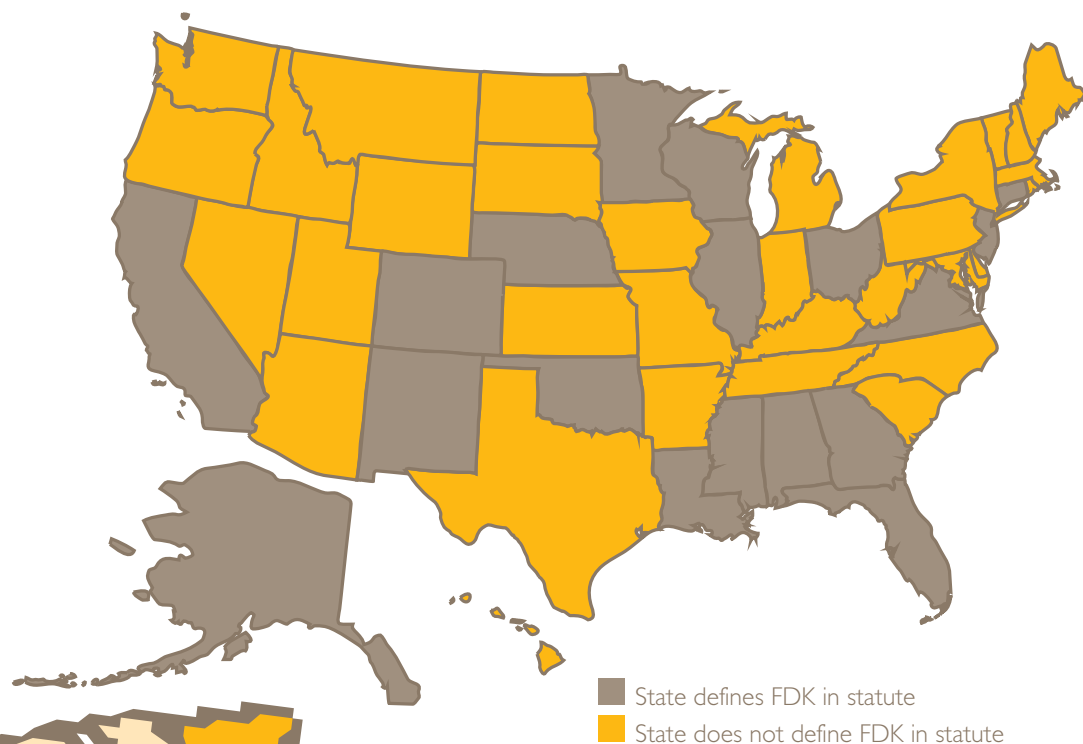
1. *Lack of Clarity on What Is Full-Day Kindergarten*

The U.S. Census Bureau considers a child to attend a full-day kindergarten program if he/she usually attends both in the morning and afternoon of each day, for at least five days per week.¹⁴ Only 18 states provide specific statutory definitions of full-day kindergarten. Of those, 12 states measure the number of hours a child attends each day; six states measure the total number of hours a child attends during the entire school year. (A state-by-state listing of these definitions is provided in Appendix A.) By both measures, there is wide variation across states. The states that require the *most* class time for full-day kindergarten programs exceed by more than 30% the time required by states with the *least* time in full-day kindergarten. For example:

- While one state (Illinois) defines full-day kindergarten as four hours per day, three other states (Alabama, Louisiana and Oklahoma) require six hours per day.
- While one state (Wisconsin) defines full-day kindergarten as 1,050 hours per academic year, another state (Florida) requires only 720 hours per year.

The discrepancy between states' definitions of full-day kindergarten makes it difficult to reliably compare policies, programs and outcomes across the states. Even more problematic, the lack of clarity on what constitutes full-day kindergarten makes it difficult to ensure young children experience continuity as they move out of pre-kindergarten, into kindergarten, then transition into 1st grade and beyond. As has already been noted, full-day kindergarten is often no longer the first formal, full-day, out-of-home educational experience for many young children. Some states informally report that, with the expansion of full-day pre-kindergarten programs that often provide services to children for six or more hours per day, some children are experiencing discontinuity as they move into kindergarten and 1st grade.

State Statute Defines Full-Day Kindergarten (FDK)



Without full-day kindergarten policies that take into account the length of day that children experience in pre-kindergarten and 1st grade, some children may spend six or more hours per day in pre-kindergarten as a 4-year-old, then only four hours per day in kindergarten as a 5-year-old, then six or more hours per day in 1st grade as a 6-year-old. This not only disrupts children's schedules, but it can be a problem for working families who must continually readjust child care.

Recommendation:

- State policymakers should ensure the minimum number of instructional days and the number of daily instructional hours of full-day kindergarten are defined in statute. To maintain continuity in children's schedules, the level of required daily instructional hours should take into consideration the length of day that children experience in full-day pre-kindergarten programs and in 1st grade.

2. Lack of Universal Access to Full-Day Kindergarten

At the **national** level, a recent major longitudinal study, the *Early Childhood Longitudinal Study – Kindergarten Class of 1998-99 (ECLS-K)*,¹⁵ provides descriptive data on public and private schools that offer full-day kindergarten and the children enrolled in these programs. These data show that full-day programs are more likely to be offered in public schools with higher concentrations of minority children (at least 75% minority enrollment) and in public schools where at least half the enrollment is comprised of low-income children.

In addition, the U.S. Census Bureau annually makes available national data on half-day and full-day kindergarten enrollment. These data reveal that, nationally, more children from low-income families and more black children attend full-day kindergarten.¹⁶ Of all black children enrolled in kindergarten in 2002, 82% attended a full-day program, while only 18% attended part-day. In comparison, of all white, non-Hispanic children enrolled in kindergarten, 59% attended full-day and 41% attended part day.

Family Income	Full-Day	Part-Day	
\$19,000 or less	71%	29%	100%
\$20,000 or \$49,999	61%	39%	100%
\$50,000 +	58%	42%	100%
All Incomes	63%	37%	100%

	Full-Day	Part-Day	
Black	82%	18%	100%
Asian / Pacific Islander	61%	39%	100%
White (non-hispanic)	59%	41%	100%
Hispanic (any race)	59%	41%	100%
All races	63%	37%	100%

Source: U.S. Census Bureau, *Current Population Survey*, 2002

At the **regional** level, ECLS-K data reveal that full-day kindergarten is most prevalent in Southern states where 84% of all public schools offer full-day kindergarten. In contrast, 57% of public schools in the Midwest, 38% of public schools in the West and 37% in the Northeast offer full-day kindergarten classes. It is not surprising that these data, coupled with the data on state requirements that school districts offer full-day kindergarten programs (see map on page 6 showing that many Southern states require districts to offer full-day kindergarten), suggest that state statutory requirements have a positive effect on the availability of programs.

Unfortunately, at the **state** level, it is much more difficult to understand which children have access to – and are enrolling in – full-day kindergarten. To understand the impact of state policies on providing access to specific populations of children, it is important to know state-level enrollment breakdowns on half-day and full-day kindergarten. Most state governments, however, do not collect these data. Based on ECS' survey of state departments of education, only seven of the 50 states track data on both race/ethnicity and income or a proxy for income for children enrolled in full-day kindergarten.¹⁷ For this reason, it is difficult to document and understand the variations in children's access to full-day kindergarten that are created by different combinations of state policies.

One promising strategy, however, the states can employ to ensure all children have access to full-day kindergarten is to mandate in state statute that school districts offer it. In states that require school districts to offer full-day kindergarten, districts plan for and implement the program as they would any other grade in school. Statutory requirements that *all* school districts provide full-day kindergarten also serve as a “safety net” to ensure full-day programs are not reduced or eliminated altogether during tight budget periods.

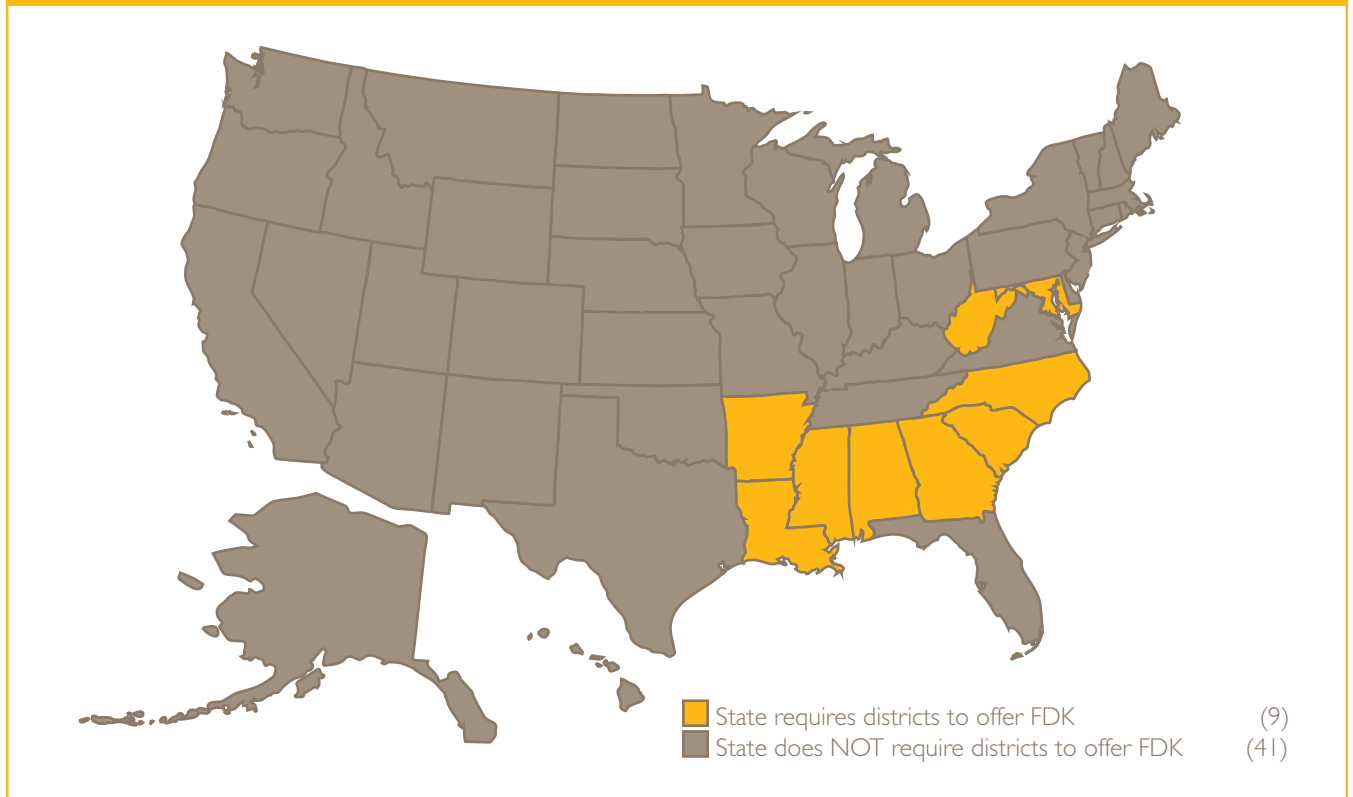
Over the past 20 years, the number of states requiring districts to offer full-day kindergarten has increased ninefold. In 1984, only one state (North Carolina) required school districts to offer full-day kindergarten. Today, nine states (Alabama, Arkansas, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina and West Virginia) do so.

An additional state, New Jersey, mandates district provision of full-day kindergarten in only *some* school districts – the

“Abbott districts.” The Abbott districts are the state’s 28 urban school districts with the lowest socio-economic status and large percentages of disadvantaged students and students of color.¹⁸ By order of the New Jersey Supreme Court, these districts receive parity funding from the state to close the gap in foundational funding and to provide needed supplemental programs. With some of this funding, Abbott districts are required to offer full-day kindergarten to all students.

In the other New Jersey school districts and in the other 40 states, school district offering of full-day kindergarten is permissive or left to local decision. The lack of a state mandate could be attributed to a variety of factors, including a belief that education matters should be left to local control, concerns surrounding parent choice, a lack of intentional policymaking related to kindergarten, or a lack of adequate funding to implement full-day kindergarten statewide. In the absence of a state mandate, school districts must decide

State Statute Requires School Districts Offer Full-Day Kindergarten (FDK)



both *if* they will offer full-day kindergarten, and *how* they will offer full-day kindergarten (e.g., to which children, paid by which resources).

Because most states do not mandate district provision of full-day kindergarten, there is currently a large variation in distribution of access within most states. When surveyed by ECS for this study, many states did not know the percentage of school districts that offer *full-day* kindergarten. For those states that do track this data, two states (Montana and New Hampshire) report that fewer than 10% of school districts offer full-day kindergarten; while another eight states (Delaware, Florida, Iowa, Missouri, New Mexico, New York, Virginia and Wisconsin) report that more than 70% of districts offer full-day programs.¹⁹

While only a state mandate guarantees statewide access, a permissive approach that provides adequate funding and support to school districts also may result in universal access to full-day kindergarten. New Mexico used this approach by phasing in full-day kindergarten over a five-year period (from 2000 through the 2004-05 school year). Beginning in 2000, one-fifth of New Mexico's school districts were eligible to apply to the state for full-day kindergarten funding that was greater than the funding provided to 1st grade. Even though school districts had an option to waive the opportunity to obtain funding for a full-day program, all districts chose to participate. Consequently, even though the state has a permissive policy approach to district offering of full-day kindergarten, 100% of school districts now provide a full-day option.

Recommendations:

- State policymakers should enact a consistent statewide policy requiring school districts to offer full-day kindergarten. This will ensure an equitable distribution of programs so there is not a large variation in access from one geographic location to another within a state.
- To better understand how state policies impact children's access to full-day kindergarten, policymakers should require better data-collection efforts about school district offerings of full-day kindergarten programs, as well as the demographics of enrolled students.

3. Lack of Adequate Funding for Full-Day Kindergarten

As is true with many public policy priorities, funding for full-day kindergarten often determines the extent of its implementation. To implement full-day kindergarten, school districts and schools depend on funds from three primary sources – the federal government, state government and local government. Nationally, school districts receive 8.1% of their total K-12 funding from federal sources, 49% from state sources and 42.9% from local sources. Each of these funding sources plays an important role in school districts' ability to provide access to full-day kindergarten.

Federal Funding and Full-Day Kindergarten

The majority of federal funds for K-12 education come from the Elementary and Secondary Education Act (ESEA), specifically from the section of the act referred to as Title I. The most recent reauthorization of ESEA is better known as No Child Left Behind (NCLB). Most Title I funds are distributed by formula from the U.S. Department of Education to state departments of education. The states pass through the majority of Title I funds to school districts based on a formula that factors in the district's proportion of students from low-income families and the state's per-pupil expenditures. Once districts receive funds from the state, they have flexibility in how the money is allocated, provided that priority is given to schools with the highest concentration of children from low-income families.

State and school district administrators report that many school districts use Title I funds to provide full-day kindergarten programs. Although Title I funds can help provide full-day kindergarten for low-income students, they cannot be used to provide access for all students. Consequently, districts that receive Title I funding may only have resources to provide full-day kindergarten to low-income students. Even then, there are numerous competing priorities for the Title I monies in school districts.

State Funding and Full-Day Kindergarten

Even without a state-level mandate for districts to provide full-day kindergarten, states can encourage the offering of such programs through strong funding incentives. There are two primary ways in which state policy affects districts' financial ability to offer full-day kindergarten: (1) the weight provided to full-day kindergarten students in a state's funding formula; and (2) the availability of categorical – or grant-based – funding.

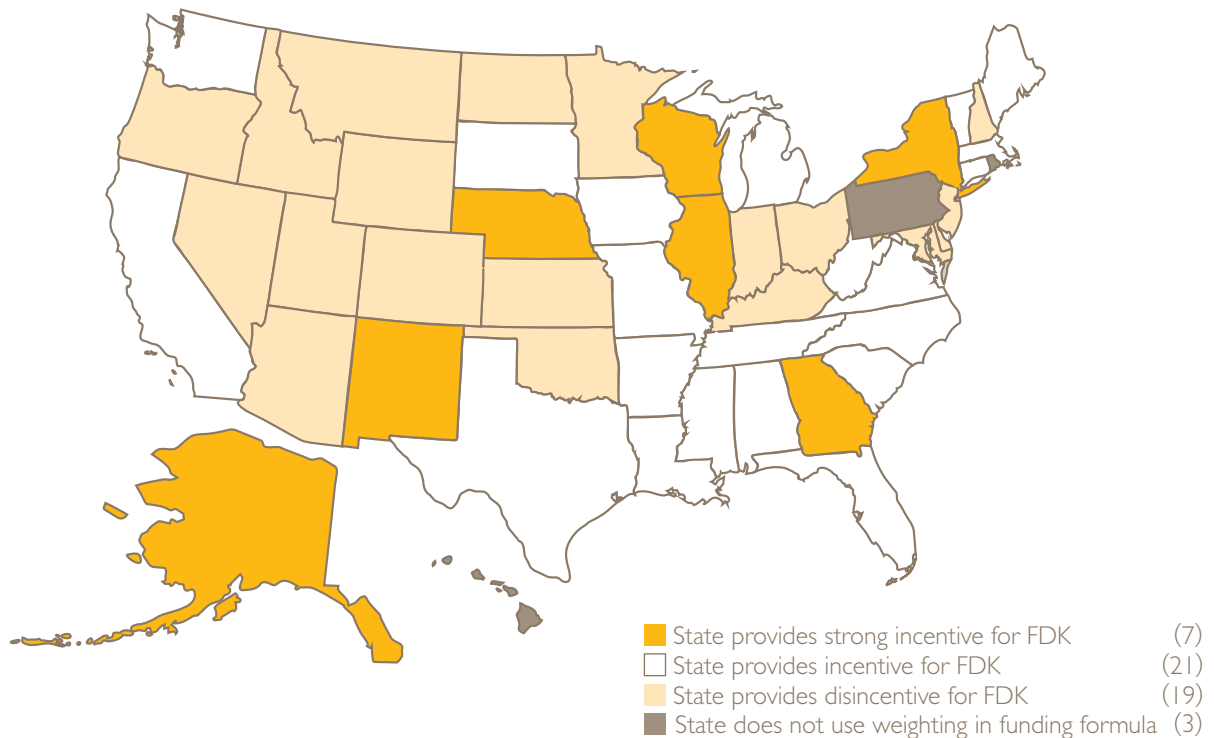
State Funding Formulas and Full-Day Kindergarten Weights

Like funding for grades 1-12, the level of state funding for full-day kindergarten is established in state policy as part of each state's K-12 education funding formula. Forty-seven states use a foundation (or base) program²⁰ to provide funding to school districts (Hawaii, Pennsylvania and Rhode Island are exceptions). Within these funding formulas, states often provide additional funding for specific groups of students (e.g., at-risk, special education, English language learners) or

for different grade levels (e.g., full-day kindergarten) by "weighting" different subpopulations in the funding formula. Through this weighting, states create incentives or disincentives for districts to provide full-day kindergarten:

- A **strong incentive** for school districts to offer *full-day* kindergarten exists when the state provides more funding for full-day kindergarten than is provided for half-day AND when the weight provided to full-day kindergarten is equal to or greater than the weight provided to 1st grade. This definition assumes that full-day kindergarten requires a similar, or greater, level of resources as 1st grade and that the state is willing to provide this level of funding to all school districts. Seven states provide a strong incentive to offer full-day kindergarten (Alaska, Georgia, Illinois, Nebraska, New Mexico, New York and Wisconsin).²²
- An **incentive** exists when the weight provided to full-day kindergarten is equal to or greater than that provided for 1st grade, BUT the level of funding provided for half- and full-day programs is the *same*. Here, the state recognizes

State Funding Incentives for Full-Day Kindergarten (FDK)



that kindergarten requires a similar, or greater, level of resources as 1st grade, but there is not a strong and explicit incentive for school districts to offer *full-day* kindergarten. While school districts could use the state funds to provide full-day kindergarten or a high-quality half-day kindergarten program, they also could use the state funds to provide a lower-quality half-day program and use the “extra” funds to support other district programs or services. Twenty-one states provide funding incentives for districts to offer kindergarten, but offer no strong incentive for districts to offer *full-day* kindergarten.

- States create a **disincentive** for school districts to offer full-day kindergarten when the state funding provided for a half-day or a full-day kindergarten program is the same AND the funding level is lower than that provided for 1st grade. This situation indicates that state policymakers are unwilling – or unable – to provide financial resources to support full-day kindergarten. If a school district chooses to offer full-day kindergarten, it must pay for it out of local resources (e.g., local tax efforts, parent fees). Nineteen states provide a disincentive to districts to offer full-day kindergarten.

State Funding – Categorical Programs

In addition to incentives provided within foundation funding formulas, many states use categorical funding to target resources to particular groups of students (e.g., special education, at risk or English language learners), services (e.g., transportation, free/reduced price lunch, or computer services) or education programs (e.g., full-day kindergarten, arts education or smaller class sizes).

States use categorical programs for full-day kindergarten for a variety of reasons: as an interim strategy for phasing in funding and implementation of universal access; to provide a full-day program to children who have risk factors associated with school failure; or to serve specific geographic areas with high numbers of children who are identified as “at risk.” Eleven states currently use categorical programs to help fund full-day kindergarten programs:²³

- Three states (Massachusetts, New Hampshire and New York) use categorical programs to target funding to districts that have never offered full-day kindergarten programs in the past.
- Seven states (Colorado, Connecticut, Minnesota, New Mexico, South Carolina, Texas and Wisconsin) use categorical funding programs to assist districts in providing full-day kindergarten to at-risk students. Wisconsin’s categorical program targets funds for full-day kindergarten to one school district, Milwaukee.
- Rhode Island has three different categorical programs intended to improve student achievement by increasing access to full-day kindergarten.

Typically, states target categorical funds through a competitive grant process or pupil-directed funding. One disadvantage of categorical funding is it often provides funding for a limited time, typically a single academic year. While this can help school districts transition to a full-day kindergarten program, it usually does not provide long-term sustainability. Once the categorical funding ends, the program may, too. In addition, categorical funding programs may require substantial administrative resources at both the state and district levels to implement and monitor effectively.

Recommendations:

- State policymakers should create strong incentives in state school funding formulas for school districts to offer full-day kindergarten programs.
- When there are insufficient resources for states to guarantee universal access to full-day kindergarten, state policymakers should implement categorical programs that encourage districts to offer full-day kindergarten to targeted populations (e.g., at risk, disadvantaged, in failing schools).



4. Lack of Quality Standards for Full-Day Kindergarten

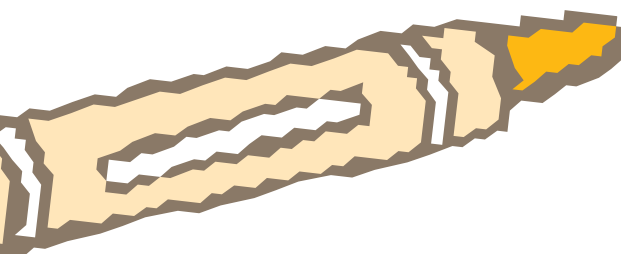
One of the enduring discussions about kindergarten – about education as a whole – is quantity versus quality. These discussions are particularly germane to full-day kindergarten because of the debate about the benefits of a full-day program versus a half-day program. Should children spend more time in class (as measured by hours per day, days per year or total years of schooling)? Or should the rigor of class time be improved (e.g., with higher standards, better-trained teachers, or a valid and reliable means of assessing and improving student performance)? Quantity should not be confused with quality. The *quality* of the full-day kindergarten experience is fundamental to the ultimate impact on young children and their success in school and in life.

Much recent research on both early learning programs²⁴ and K-12 education²⁵ highlights the primary importance of program quality in positively impacting children's intellectual, linguistic, physical, social and emotional development, and their overall achievement. This section of the report provides an overview of how state policy addresses – or does not address – quality in full-day kindergarten programs. Because reliable research is not available on specific dimensions of program quality (e.g., curriculum, learning activities, specific teacher training) that are most important for full-day kindergarten, quality is defined here by two areas that are most amenable to state policy enactment: learning standards and teacher qualifications.

Standards and Full-Day Kindergarten

Underlying the national standards movement is the premise that, by defining the desired content and outcomes of children's education, states will set high expectations for *all* children to learn and will provide “guideposts” of information to parents, teachers and policymakers about how to promote children's positive development and learning. No Child Left Behind requires each state to establish its own academic content standards for what students in grades 3 through 8 and in high school should know and be able to do in core content subjects. At the same time, in part prompted by President George W. Bush's Good Start, Grow Smart early childhood initiative, an increasing number of states are developing early learning standards that define expectations for what young children should know and be able to do before they enter kindergarten.²⁶

Even though specific grade-level expectations are statutorily required beginning in 3rd grade, standards for what children should know and be able to do in full-day kindergarten (and half-day kindergarten), 1st grade and 2nd grade are not explicitly addressed or required by most states' K-12 reform efforts or early learning standards development. ECS' survey of the 50 state departments of education revealed that:

- Twelve states have separate kindergarten standards (Arizona, Georgia, Idaho, Indiana, Maryland, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, South Carolina and Texas). Of these states, only Arizona, Georgia, Idaho, Indiana and North Carolina require the standards be adopted by all districts and applied to all kindergarten programs.
 - Six states have standards that focus on a broader K-3 framework (Alabama, Alaska, Arkansas, Delaware, Hawaii and Louisiana).
 - Five states have standards that are integrated into a P-2 framework – pre-kindergarten through 2nd grade (Connecticut, Florida, Maine, Massachusetts, and Pennsylvania).
 - One state, Colorado, uses a K-4 standards framework.
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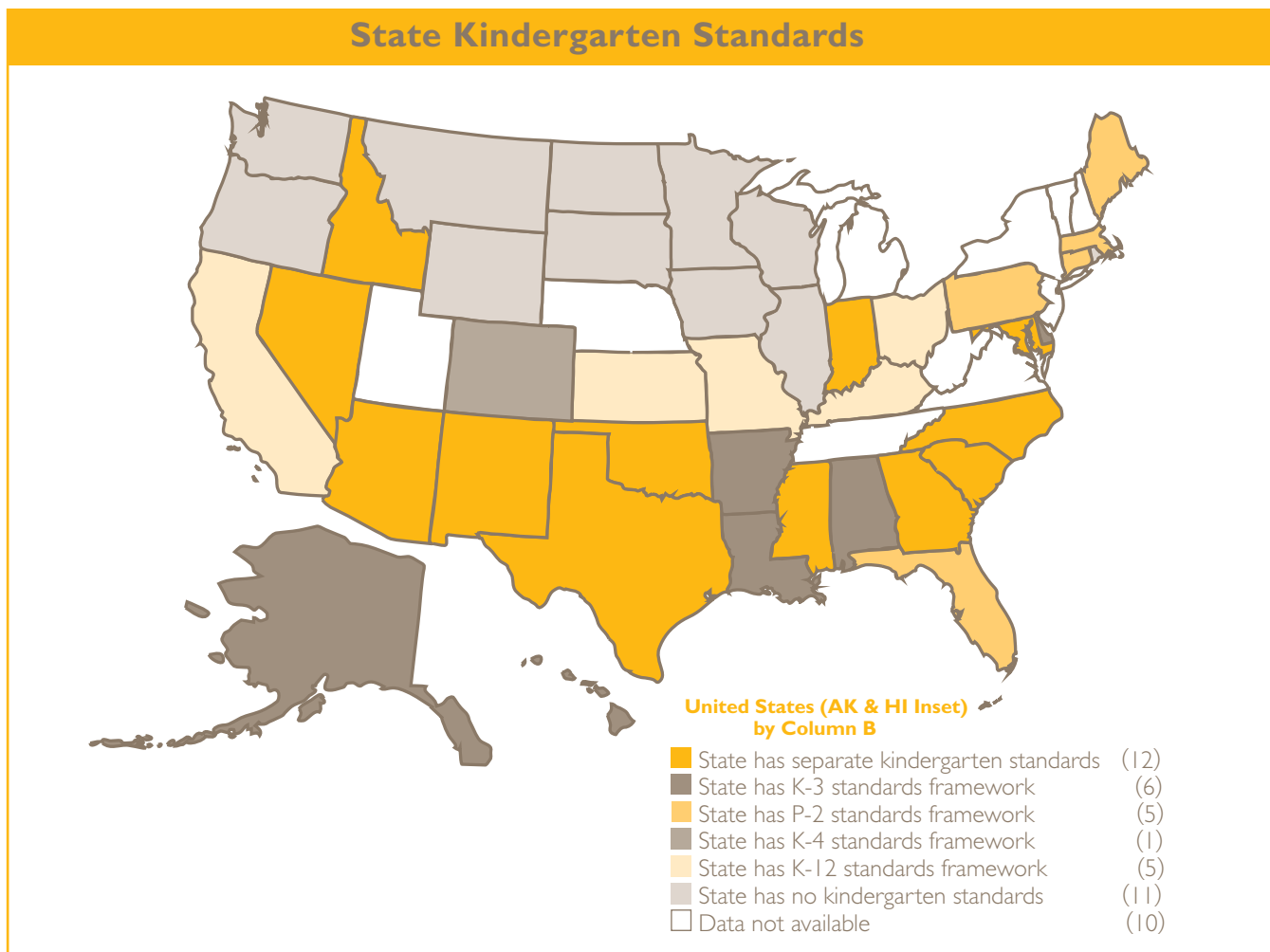
- Five states have an overall K-12 standards framework that integrates kindergarten (California, Kansas, Kentucky, Missouri and Ohio).
- Eleven states have no kindergarten-specific standards (Illinois, Iowa, Minnesota, Montana, North Dakota, Oregon, Rhode Island, South Dakota, Washington, Wisconsin and Wyoming).
- Ten states did not respond to the question (Michigan, Nebraska, New Hampshire, New Jersey, New York, Tennessee, Utah, Vermont, Virginia and West Virginia).

These data do not reflect the content or comprehensiveness of each state's kindergarten standards.²⁷ The content of such standards, however, is critical. In fact, there is growing consensus in the early care and education field that standards for young children should embrace all five domains of school readiness as defined by the National Education Goals Panel: (1) physical and motor development, (2) social

and emotional development, (3) approaches toward learning, (4) cognitive development, and (5) language and literacy development. Without strong state policies that explicitly require school districts to support all five domains of children's school readiness, the content of state kindergarten standards is left to chance and wide variation.

Recommendations:

- State policymakers should ensure learning standards for kindergarten are created and aligned both with early learning standards and standards for 1st grade and beyond.
- State policymakers should ensure learning standards for kindergarten are developed and implemented comprehensively across five key domains of school readiness: physical and motor development, social and emotional development, approaches toward learning, cognitive development, and language and literacy development.



Teacher Qualifications and Full-Day Kindergarten

A growing body of research – in both K-12 education²⁸ and early childhood education²⁹ – shows that the qualifications of teachers have a clear impact on a child's learning and development. In recognition of the need for qualified teachers *throughout* early education, the Association of Teacher Educators and the National Association for the Education of Young Children recommend the establishment of specialized early childhood teacher certification standards for teachers working with children from birth through age 8.³⁰ Furthermore, the Committee on Early Childhood Pedagogy, appointed by the National Research Council, recommends “that a college degree *with specialized education in child development and the education of young children* ought to be required for teachers of young children” [emphasis added].³¹

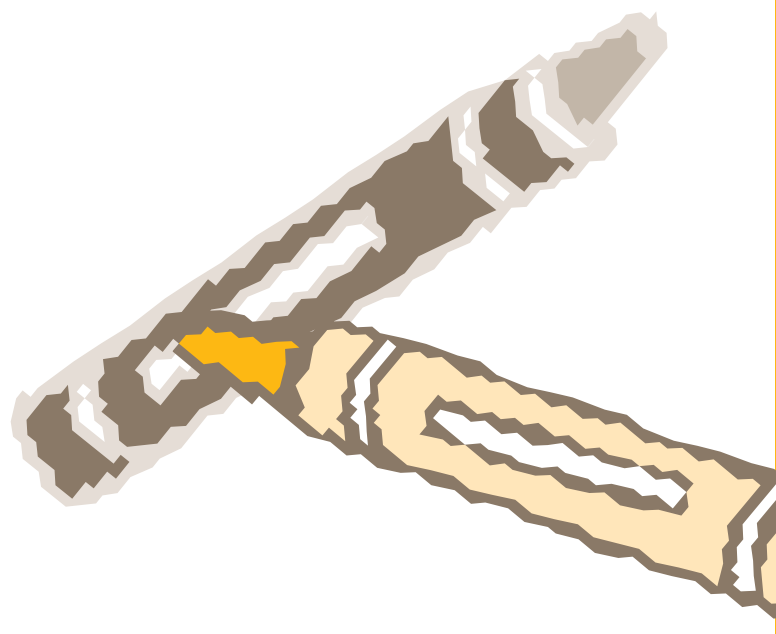
Unfortunately, there is a serious mismatch between the teaching qualifications expected of professionals who teach 5-year-old children in kindergarten and those who teach children 4 years old and younger in early learning programs. Many early learning professionals who work with young children – especially in child care programs – are not required to hold any degree or certification.³² In contrast, most kindergarten teachers are required to hold at least a bachelor's degree, primarily because they are considered part of the K-12 universal education system.

To address this mismatch between statutory requirements for early learning and kindergarten teacher qualifications, there has been much discussion and advocacy nationally to require all teachers in early learning programs to hold bachelor's degrees.³³ This alone, however, will not solve the problem because there also is a mismatch of expectations for kindergarten teachers. Specifically, kindergarten teachers should be expected to have certification or ongoing professional development in early childhood education. Many states do not require that kindergarten teachers hold certification in early childhood development and/or education. Based on ECS' review of kindergarten-related statutes in all 50 states:

- Only three states (Massachusetts, Mississippi and Oklahoma) require that kindergarten teachers possess certification or training in early childhood education.
- One state (Illinois) requires, via statute, that kindergarten teachers hold *either* an early childhood certificate or an elementary certificate.
- One state's statute (Maryland) requires that kindergarten teachers complete “at least one course in child development.”
- All other state statutes are silent on the issue of kindergarten teacher certification in early childhood development and education.

Recommendation:

- State policymakers should ensure qualifications for full-day kindergarten teachers, and professional development opportunities that support them, meet national recommendations and include specialized education in child development and the education of young children.



CONCLUSION

State policymakers exert critical leadership in establishing policies and standards for children's access to high-quality, well-funded full-day kindergarten programs. Policy not only creates the regulatory atmosphere for program implementation, but it also guides the public's expectations for education quality and outcomes. Policymakers are, therefore, in a pivotal position to influence the positioning of kindergarten as a critical year in children's early education. Toward these ends, it is imperative that state and district policymakers take a comprehensive view of full-day kindergarten policies to provide a coherent continuum of early education for all young children in this nation.

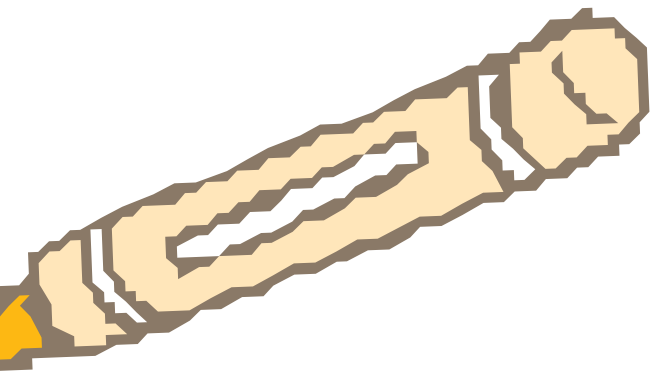
TRENDS IN STATE POLICY: KINDERGARTEN ENTRANCE AGE

State policymakers have invested a considerable amount of time and energy into issues related to kindergarten entrance age. Since 1984, 14 states have raised the entrance age to ensure more children are 5 or older before beginning kindergarten. Raising the entrance age delays access to kindergarten for younger children by one year:

- From a policy perspective, many lawmakers argue that raising the kindergarten entrance age will increase student achievement because they believe older children are better prepared for success and will ultimately perform better when they reach 1st grade and beyond.
- From a fiscal perspective, raising the kindergarten entrance age creates a one-time decrease in the education budget as it reduces the number of children who enroll in kindergarten when the age change takes effect.

- From a child's perspective, raising the kindergarten age means that some children essentially miss out on an entire year of learning. Most states lack universal pre-kindergarten programs so, without access to publicly funded kindergarten, children lack guaranteed access to an enriched early learning program during the year in which they would have been enrolled in kindergarten.

While it could be argued that a more congruent kindergarten entrance date across the states would better accommodate an increasingly mobile populace, the "perfect" date will likely never be found. No matter when the cut-off date is set, kindergarten classrooms will always have children whose ages differ by more than 12 months; they will always have children who are "well prepared" to succeed in the kindergarten classroom and children who are not so well prepared. A comprehensive review of the research on entrance ages found no difference or very modest and diminishing differences in academic achievement between younger and older kindergarten children.³⁴ For this reason, any potential policy impacts are likely to be small and short-term at best.



Kindergarten Entrance Age (Child must be 5 on or before this date)

State

January 1	Connecticut, Vermont ¹
July 1	Indiana
August 1	Missouri ² , Ohio ³
August 15	Alaska
August 31	Delaware, Kansas, Washington
September 1	Alabama, Arizona, Florida, Georgia, Idaho, Illinois, Minnesota, Mississippi, New Mexico, North Dakota, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, West Virginia, Wisconsin
September 2	Utah
September 10	Montana
September 15	Arkansas, Iowa, Wyoming
September 30	Louisiana, Nevada, Ohio ³ , Tennessee, Virginia
October 1	Kentucky
October 15	Maine, Nebraska
October 16	North Carolina
October 31	Maryland ⁴
December 1	Michigan
December 2	California
December 31	District of Columbia, Hawaii ⁵
Local Decision	Colorado, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania

¹ Vermont districts may choose to set the kindergarten entrance date between August 31 and January 1.

² Missouri law is different for metropolitan school districts; metropolitan districts may establish entrance age for kindergarten on or before any date between August 1 and October 1.

³ Ohio allows districts to choose either September 30 or August 1.

⁴ Maryland is raising the kindergarten entrance age over the next three years as follows: 2004-05 school year: October 31; 2005-06 school year: September 30; 2006-07 school year: September 1.

⁵ In Hawaii, beginning with 2006-07 school year, the entrance age for kindergarten will be 5 on or before August 1.



APPENDIX A

ECS STATENOTES, “FULL-DAY KINDERGARTEN,” APRIL 2005

Access to Full-Day Kindergarten

- **Nine states** (Alabama, Arkansas, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina and West Virginia) **mandate that school districts offer full-day kindergarten programs.**
- **Only two states** (Louisiana and West Virginia) **mandate that age-eligible children attend full-day kindergarten.**

State Funding for Full-Day Kindergarten

- **Seven states provide a strong incentive to districts to offer full-day kindergarten.**

These include Alaska, Georgia, Illinois, Nebraska, New Mexico, New York and Wisconsin. These are states that: (1) provide a higher level of funding for full-day kindergarten than is provided for half-day kindergarten; and (2) provide funding for full-day kindergarten that is equal to or greater than the amount funded for 1st grade. In five of these states, the level provided for full-day kindergarten is the same as that provided for 1st grade. Two states (Georgia and New Mexico) provide higher levels of funding for full-day kindergarten than are provided for 1st grade.

- Technically, Pennsylvania state statute provides a similar strong incentive to districts to offer full-day kindergarten. In practice, however, the funding formula is not actually used to distribute education funding. Since the 1992 school year, the Pennsylvania General Assembly has allocated education funds to districts based on the amount received in fiscal year 1990-91, with state-mandated adjustments each year. Within this ad hoc distribution of funds, there is no standard formula that clearly provides an incentive to districts to offer full-day kindergarten.
- **Twenty-one states and the District of Columbia provide an incentive, but not a strong incentive, for districts to offer full-day kindergarten.** Of these:
 - Two states (North Carolina and South Carolina) and the District of Columbia fund all kindergarten programs at a higher level than 1st grade. No funding distinction, however, is made between full- and half-day kindergarten programs. This policy provides an incentive for districts to offer both half-day and full-day kindergarten programs, but does not explicitly prioritize full-day kindergarten.

- One state (Massachusetts) provides more funding for full-day kindergarten than for half-day kindergarten, but the amount is still less than that provided for 1st grade. This funding policy prioritizes full-day kindergarten over half-day kindergarten, but does not provide equitable funding between full-day kindergarten and 1st grade.
- Eighteen states fund all kindergarten programs at the same level as 1st grade but make no distinction between full- and half-day kindergarten programs. This policy provides funding equity between kindergarten and 1st grade, but does not provide an explicit incentive for full-day kindergarten. These states include Alabama, Arkansas, California, Connecticut, Florida, Iowa, Louisiana, Maine, Michigan, Mississippi, Missouri, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington and West Virginia.
- **Nineteen states provide a disincentive to districts to offer full-day kindergarten.** These include Arizona, Colorado, Delaware, Idaho, Indiana, Kansas, Kentucky, Maryland, Minnesota, Montana, Nevada, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Oregon, Utah and Wyoming. These are states that: (1) provide no difference in funding for full- and half-day kindergarten; and (2) provide kindergarten funding at a lower level than that provided for 1st grade. Three of these states (Colorado, New Hampshire and New Jersey) do offer additional categorical funding for full-day kindergarten programs in some districts or for some children.
- **Categorical programs** are designed by states to provide funding to districts for a specific program or service. Categorical funding is intended to supplement monies supplied to districts in the state's funding formula. Eleven states currently use categorical programs to help fund full-day kindergarten programs:
 - Three states (Massachusetts, New Hampshire and New York) target funding to districts that have never offered full-day kindergarten programs in the past.
 - Seven states (Colorado, Connecticut, Minnesota, New Mexico, South Carolina, Texas and Wisconsin) use categorical funding programs to assist districts in providing full-day kindergarten to at-risk students.
 - Wisconsin's categorical program targets funds for full-day kindergarten to one school district, Milwaukee.
 - Rhode Island has three different categorical programs intended to improve student achievement by increasing access to full-day kindergarten.

State	Definition of Full-Day Kindergarten	District Offering of Full-Day Kindergarten	Pupil Attendance in Full-Day Kindergarten	State Funding for Full-Day Kindergarten
Alabama	6 hours/day	Mandatory	Permissive	Incentive
Alaska	Minimum of 4 hours/day	Permissive	Permissive	Strong Incentive
Arizona	Not specified in statute	Permissive	Permissive	Disincentive
Arkansas	Not specified in statute	Mandatory	Permissive	Incentive
California	More than 4 hours, but not to exceed the length of the primary school day	Permissive	Permissive	Incentive
Colorado	900 hours/year (Shorter than 1st grade)	Permissive	Permissive	Disincentive + Categorical Program
Connecticut	900 hours/year (5 hours/day) (Same as 1st grade)	Permissive	Permissive	Incentive + Categorical Program
Delaware	Not specified in statute	Permissive	Permissive	Disincentive
Florida	720 hours/year (Same as 1st grade)	Permissive	Permissive	Incentive
Georgia	4.5 hours/day for 180 days/year	Mandatory	Permissive	Strong Incentive
Hawaii	Not specified in statute	Permissive	Permissive	Not Applicable
Idaho	Not specified in statute	Permissive	Permissive	Disincentive
Illinois	4 hours/day (Same as 1st grade)	Permissive	Permissive	Strong Incentive
Indiana	Not specified in statute	Permissive	Permissive	Disincentive
Iowa	Not specified in statute	Permissive	Permissive	Incentive
Kansas	Not specified in statute	Permissive	Permissive	Disincentive
Kentucky	Not specified in statute	Permissive	Permissive	Disincentive
Louisiana	6 hours/day (Same as 1st grade)	Mandatory	Mandatory	Incentive
Maine	Not specified in statute	Permissive	Permissive	Incentive
Maryland	Not specified in statute	Mandatory	Permissive	Disincentive
Massachusetts	Not specified in statute	Permissive	Permissive	Incentive + Categorical Program
Michigan	Not specified in statute	Permissive	Permissive	Incentive
Minnesota	935 hours/year (Same as 1st grade)	Permissive	Permissive	Disincentive + Categorical Program
Mississippi	Same length of school day as that of other elementary grades	Mandatory	Permissive	Incentive

State	Definition of Full-Day Kindergarten	District Offering of Full-Day Kindergarten	Pupil Attendance in Full-Day Kindergarten	State Funding for Full-Day Kindergarten
Missouri	Not specified in statute	Permissive	Permissive	Incentive
Montana	Not specified in statute	Permissive	Permissive	Disincentive
Nebraska	1,032 hours/year (Same as 1st grade)	Permissive	Permissive	Strong Incentive
Nevada	Not specified in statute	Permissive	Permissive	Disincentive
New Hampshire	Not specified in statute	Permissive	Permissive	Disincentive +Categorical Program
New Jersey	Minimum of 4 hours/day	Permissive	Permissive	Disincentive
New Mexico	5.5 hours/day or 990 hours/year (Same as 1st grade)	Permissive	Permissive	Strong Incentive +Categorical Program
New York	Not specified in statute	Permissive	Permissive	Strong Incentive +Categorical Program
North Carolina	Not specified in statute	Mandatory	Permissive	Incentive
North Dakota	Not specified in statute	Permissive	Permissive	Disincentive
Ohio	Same number of clock hours per day as grades 1-6	Permissive	Permissive	Disincentive
Oklahoma	6 hours/day	Permissive	Permissive	Disincentive
Oregon	Not specified in statute	Permissive	Permissive	Disincentive
Pennsylvania	Not specified in statute	Permissive	Permissive	Not Applicable
Rhode Island	Not specified in statute	Permissive	Permissive	Not Applicable +Categorical Program
South Carolina	Not specified in statute	Mandatory	Permissive	Incentive +Categorical Program
South Dakota	Determined by district	Permissive	Permissive	Incentive
Tennessee	Not specified in statute	Permissive	Permissive	Incentive
Texas	Not specified in statute	Permissive	Permissive	Incentive +Categorical Program
Utah	Not specified in statute	Permissive	Permissive	Disincentive
Vermont	Not specified in statute	Permissive	Permissive	Incentive
Virginia	540 hours/year	Permissive	Permissive	Incentive
Washington	Not specified in statute	Permissive	Permissive	Incentive
West Virginia	Not specified in statute	Mandatory	Mandatory	Incentive
Wisconsin	Same length of day as 1st grade	Permissive	Permissive	Strong Incentive +Categorical Program
Wyoming	Not specified in statute	Permissive	Permissive	Disincentive

ENDNOTES

- ¹**Debra J. Ackerman, W. Steven Barnett and Kenneth B. Robin**, *Making the Most of Kindergarten: Present Trends and Future Issues in the Provision of Full-Day Programs* (New Brunswick, NJ: National Institute for Early Education Research, Rutgers University, 2005); **Dale DeCesare**, "Full-Day Kindergarten Programs Improve Chances of Academic Success," in *The Progress of Education Reform*, vol. 5, no. 4 (Denver, CO: Education Commission of the States [ECS], 2004); **Jill Walston and Jerry West**, *Full-Day and Half-Day Kindergarten in the United States: Findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2004).
- ²**National Research Council and Institute of Medicine**, *From Neurons to Neighborhoods: The Science of Early Childhood Development*, ed. Jack P. Shonkoff and Deborah A. Phillips, Committee on Integrating the Science of Early Childhood Development (Washington, DC: National Academy Press, 2000).
- ³**Steven W. Barnett**, *Lives in the Balance: Age-27 Benefit-Cost Analysis of the High/Scope Perry Preschool Program* (Ypsilanti, MI: High/Scope Educational Research Foundation, 1996); **Frances Campbell, Shari Miller-Johnson, Joseph Sparling and Elizabeth Pungello**, *Early Childhood Education: Young Adult Outcomes from the Abecedarian Project* (Chapel Hill, NC: Frank Porter Graham Child Development Institute, 2001); **Arthur J. Reynolds, Judy A. Temple, Dylan L. Robertson and Emily A. Mann**, "Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Centers," in *Educational Evaluation and Policy Analysis* 24, no. 4 (2002); **Arthur J. Reynolds, Judy A. Temple, Dylan L. Robertson and Emily A. Mann**, "Long-Term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest: A 15-Year Follow-up of Low-Income Children in Public Schools," in *Journal of the American Medical Association* 285, no. 18 (2001).
- ⁴**Maris A. Vinovskis**, *The Road to Charlottesville: The 1989 Education Summit* (Washington, DC: National Education Goals Panel, 1999).
- ⁵**Sara Vecchiotti**, "Kindergarten: An Overlooked Educational Policy Priority," in *Social Policy Report*, ed. Lonnie Sherrod (Society for Research in Child Development, 2003); **Sara Vecchiotti**, "Kindergarten: The Overlooked School Year," in *Working Paper Series* (New York: Foundation for Child Development, 2001).
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- ⁷**Marianne N. Bloch**, "Becoming Scientific and Professional: An Historical Perspective on the Aims and Effects of Early Education," in *The Foundations of the School Subjects* (London: Falmer Press, 1987); **Robert C. Pianta and Martha J. Cox**, eds., *The Transition to Kindergarten* (Baltimore, MD: Paul H. Brookes Publishing, 1999).
- ⁸**The U.S. Census Bureau** counted children as enrolled in full-day kindergarten if they usually attend both in the morning and afternoon for each day, for at least five days per week. U.S. Census Bureau, "Preprimary School Enrollment of People 3 to 6 Years Old, by Control of School, Mother's Labor Force Status and Education, Family Income, Race and Hispanic Origin," in *Current Population Survey Reports* (Washington, DC: U.S. Census Bureau, 2000).
- ⁹**U. S. Census Bureau**, "Preprimary School Enrollment of People 3 to 6 Years Old, by Control of School, Mother's Labor Force Status and Education, Family Income, Race and Hispanic Origin," in *Current Population Survey Reports* (Washington, DC: U.S. Census Bureau, 1979, 1989, 1999, 2000, 2002).

¹⁰**West, Denton and Germino-Hausken.**

¹¹**Ackerman, Barnett and Robin; DeCesare; Walston and West.**

¹²**Walston and West.**

¹³**James J. Gallagher,** "Policy and the Transition Process," in *The Transition to Kindergarten*, ed. Robert C. Pianta and Martha J. Cox (Baltimore: Paul H. Brookes, 1999).

¹⁴**Tim Marshall,** *Interviewers Instructions: CPS Field Representative Memorandum No. 98-11; CPS CATI Interviewer Memorandum No. 98-10; Section II—October 1998* (U.S. Census Bureau, 1998).

¹⁵**Walston and West.**

¹⁶**U.S. Census Bureau.**

¹⁷Of these seven states, all but one (Colorado) are states with all or almost all kindergartners attending full-day kindergarten. The other states are Arkansas, Florida, Georgia, Iowa, Louisiana and West Virginia.

¹⁸**Education Law Center,** *Abbott Districts* (2004 [cited September 2, 2004]); available from <http://www.edlawcenter.org/ELCPublic/AbbottvBurke/AbbottDistricts.htm>.

¹⁹**ECS survey of state kindergarten specialists,** 2002.

²⁰For additional information on foundation funding formulas, visit www.ecs.org/finance.

²¹A full summary of the 50 states' funding weights provided to each grade may be accessed in ECS' online full-day kindergarten policy database, which may be found at www.ecs.org/kindergarten/kindertendatabase.

²²Technically, Pennsylvania state statute provides a similar incentive to districts to offer full-day kindergarten. In practice, however, the funding formula is not actually used to distribute education funding. Since the 1992 school year, the Pennsylvania General Assembly has allocated education funds to districts based on the amount received in fiscal year 1990-91, with state-mandated adjustments each year. Within this ad hoc distribution of funds, there is no standard formula that clearly provides an incentive to districts to offer full-day kindergarten.

²³**Education Commission of the States, Kindergarten Policies Database** (2004) available from <http://www.ecs.org/kindergarten/kindertendatabase>.

²⁴**Barnett,** *Lives in the Balance*; Suzanne W. Helburn, ed., *Cost, Quality and Child Outcomes in Child Care Centers* (Denver, CO: University of Colorado at Denver, 1995); **National Research Council,** *Eager To Learn: Educating Our Preschoolers*, ed. Barbara T. Bowman, M. Suzanne Donovan and M. Susan Burns, Commission on Behavioral and Social Sciences and Education (Washington, DC: National Academy Press, 2001); **National Research Council and Institute of Medicine.**

²⁵See, for example, **Geoffrey D. Borman, Gina M. Hewes and Shelly Brown,** *Comprehensive School Reform and Student Achievement: A Meta-Analysis* (Baltimore, MD: Center for Research on the Education of Students Placed At Risk, 2002).

²⁶**Catherine Scott-Little, Sharon Lynn Kagan and Victoria Stebbins Frelow,** *Standards for Preschool Children's Learning and Development: Who Has Standards, How Were They Developed, and How Are They Used? Executive Summary* (Greensboro, NC: SERVE, 2003).

²⁷Where available, ECS' database of kindergarten policies (www.ecs.org/kindergarten/kindergartendatabase) provides links to states' kindergarten standards.

²⁸**Linda Darling-Hammond, Arthur E. Wise and Stephen P. Klein**, *A License to Teach: Raising Standards for Teaching* (San Francisco: Jossey-Bass, Inc., 1999); **Rob Greenwald, Larry V. Hedges and Richard D. Laine**, "The Effect of School Resources on Student Achievement," in *Review of Educational Research* 66, no. Fall (1996).

²⁹**Steven W. Barnett**, *Better Teachers, Better Preschools*; **National Research Council**.

³⁰**Association of Teacher Educators and the National Association for the Education of Young Children (NAEYC)**, *Early Childhood Teacher Certification: A Position Statement of the Association of Teacher Educators and the National Association for the Education of Young Children* (NAEYC, July/August 1991).

³¹**National Research Council**.

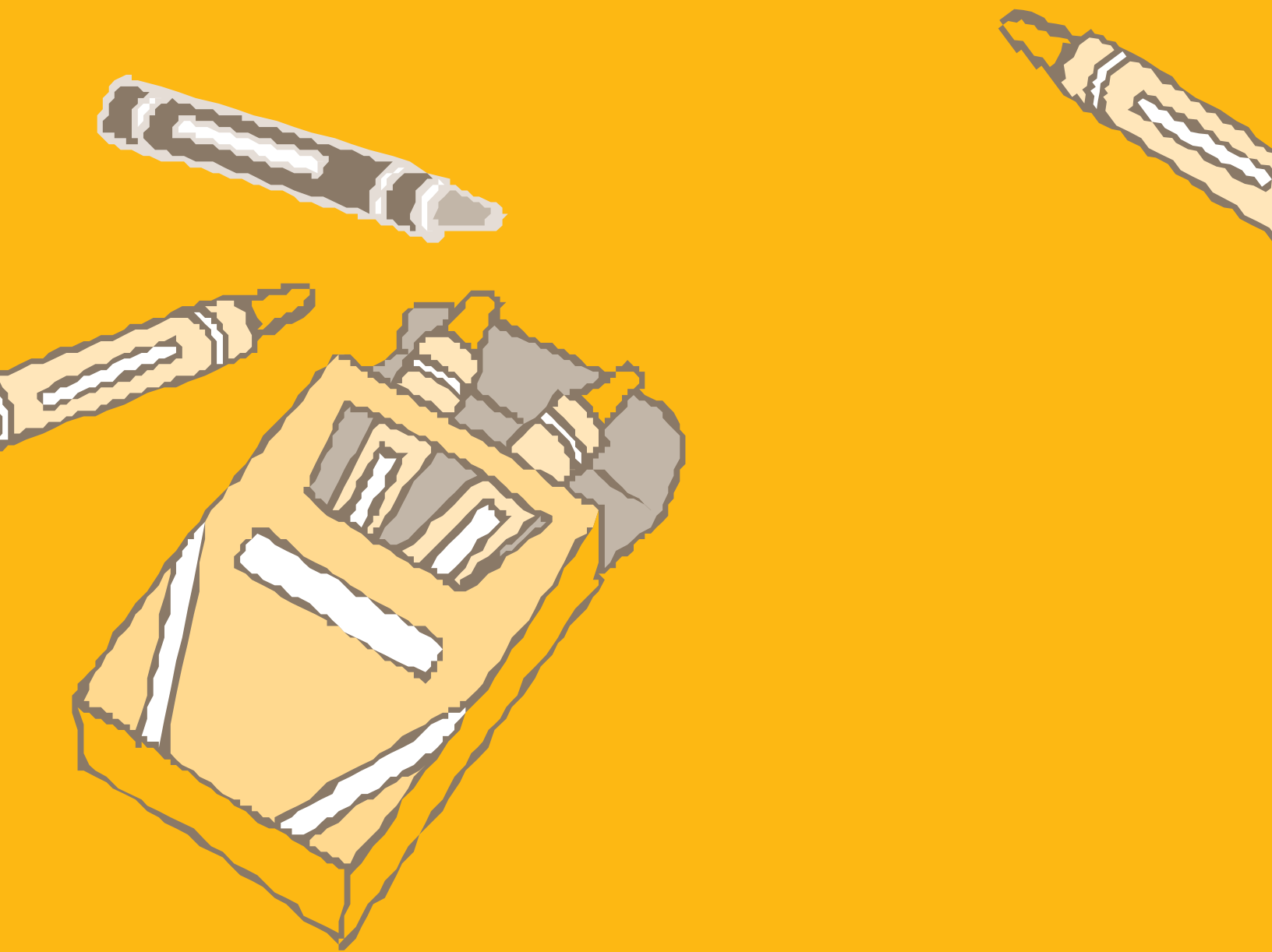
³²**Sarah LeMoine**, *Center Child Care Licensing Requirements (August 2004): Minimum Early Childhood Education (Ece) Preservice Qualifications and Annual Ongoing Training Hours for Teachers and Master Teachers* (National Child Care Information Center, 2004 [cited January 31 2005]); available from <http://nccic.org/pubs/cclicensingreq/cclr-teachers.pdf>.

³³See, for example, **Barnett**, *Better Teachers, Better Preschools*.

³⁴**Deborah Stipek**, "At What Age Should Children Enter Kindergarten? A Question for Policy Makers and Parents," in *Social Policy Report* (Ann Arbor, MI: Society for Research in Child Development, 2002).

³⁵**ECS**, *Kindergarten Policies Database*.





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