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RETHINKING CREDENTIAL REQUIREMENTS IN EARLY EDUCATION

Equity-based Strategies for Professionalizing
a Vulnerable Workforce

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Contents

Introduction	2
The Promise of Early Education	5
Laying a Foundation for Success in School & Beyond	5
Reaping the Return on Investment	6
Unifying the Workforce	9
Degree Requirements Won't Change the Labor Market	12
But They Will Transform the Workforce	13
Quality & Equity in One Approach: Apprenticeships for Early Educators	16
Apprenticeships Build Skills & Improve Job Quality	17
Philadelphia's Early Childhood Education Career Pathways Partnership	18
Conclusion	20

INTRODUCTION



Sen. Ben Sasse (R-Neb.) tweeted a blunt response to the District of Columbia’s recent announcement that, by 2020, it would require lead teachers in licensed early childhood centers to hold associate degrees.¹ Sasse was not alone in his scorn. The announcement generated a wave of skepticism across media outlets. News stories questioned the

District’s decision and voiced concern about the impact on early childhood educators and families. Newspaper comment fields were alive with bitter complaints about “oppressive” licensing practices and an encroaching nanny state determined to take over the rightful role of parents. Some worried how the new requirements would affect the cost of early education, already out of reach for many families. Others asked how workers in DC, who average about \$23,000 a year in earnings, could afford college.²

Most of all, the commenters doubted why an early education worker would need a college education in the first place. People without college degrees have been taking care of young children for millennia. What had changed to warrant such a drastic measure?



Quite a lot, it turns out. Children are the same as ever, but our understanding of their cognitive development has changed dramatically over the last decade. Advances in neuroscience have confirmed that children begin learning in their earliest days, and their capacity for learning can be significantly enhanced with the right mix of supports and activities. Studies show that the benefits of early learning—from higher test scores in middle and upper grades to better social and communication skills—are broad and long lasting.

As our understanding of early learning has deepened, so too have our expectations about what should transpire in early education settings. The field of early education expanded behind the discovery that the stretch from birth to age five is rife with opportunities to give children an educational leg up. Indeed, over the last few decades, early education has exploded. The percentage of young children of working mothers enrolled in formal early education and care programs outside the home doubled between 1977 and 2012 while the percentage receiving care at home from a non-relative dropped in half.³

Despite its grounding in cognitive science, the field of early education has struggled with perceptions that it is babysitting by another name, something that requires little or no training. Early education advocates know otherwise. They point to solid evidence that professionally trained educators are far more effective at helping young children learn than their untrained counterparts.⁴ Without rules requiring early education centers to hire trained educators, however, the quality of the education children receive varies widely.

Few people question degree requirements for teachers in elementary schools, including in kindergarten and first grade. Advocates for degree requirements for early educators ask why we would expect anything less for the teachers of our youngest children. If a bachelor's degree is required to teach a five-year-old, why not a four-year-old? Or a three-year-old? Teachers are teachers, according

to this view, and all of them need professional training before they are ready for the classroom.

Is DC's new requirement "insanely stupid," as Sasse put it, or is it long overdue recognition that teachers of our youngest learners require as much skill and training as teachers of our older children? Neither position quite captures the challenge of professionalizing the field of early education. Charges of government overreach are overblown, particularly in light of the strong evidence that early education has positive and long-term benefits. If the government is going to fund early education—and it should—it must set criteria for ensuring that those dollars go to quality providers. However, the argument that

A Note on Terminology

A wide variety of terms with various definitions are used to refer to the adults who care for and teach children in their earliest years. While early childhood education often refers to education spanning birth through third grade, this paper uses the terms early educators and early childhood educators to refer to caregivers and educators who are primarily responsible for children prior to kindergarten entry. These educators are subject to rules, funding sources, and employer relationships that set them apart from their K-3 colleagues. The more specific term, pre-K teacher, is used when referring to adults whose main responsibility is educating children aged three and four.

teachers in early childhood centers are the same as teachers in elementary schools and should be held to similar qualification requirements is deeply problematic. Both might be groups of teachers, but they do not represent a single workforce. Just as high school teachers and college faculty both educate, they do so in such different settings and under such distinct expectations that we do not generally think of them as a single workforce.

Teachers in early childhood centers operate in a vastly different segment of the labor market than their elementary school peers. The majority work in private settings marked by rules, funding sources, and employer relationships distinct from those of public school teachers. Most importantly, they generally earn significantly lower wages and enjoy far fewer benefits than their counterparts in elementary schools.⁵ These two groups of workers are not even represented by the same unions. In fact, only 10 percent of center-based early childhood educators are represented by a union at all, compared with half of all early and middle grade teachers.⁶

Degree requirements might change who qualifies for a job as a lead teacher for young children, but they can't change the underlying realities of the labor market—and that is the real problem with degree requirements in early childhood education and other low-wage occupations. The way the early education market is structured, the costs of any degree requirement will be borne almost entirely by workers who will see little, if any, increase in wages. And college isn't getting any cheaper. An average associate degree at a two-year public college costs around \$9,500 a year. A bachelor's degree from a four-year public institution costs about \$18,600 a year.⁷ That is a steep entry price for a profession where hourly wages average less than \$10 an hour.

What if there was an educational strategy that could increase early childhood educators' skills and knowledge and improve the quality of their jobs without requiring them to pay for a college degree? The city of Philadelphia is one of several governments that have embarked on a bold experiment to do exactly that. The ECE Career Pathways Partnership is led by the District 1199C Training and Upgrading Fund, a labor-management partnership serving employers and workers in the healthcare and human services sector.

The program launched in May 2017 by enrolling 30 current early childhood educators in a two-year registered apprenticeship program. Participation results in a certificate of completion from the U.S. Department of Labor, an associate degree, and lead teacher certification for Philadelphia-area early childhood education centers. The apprentices learn on the job with the help of a worksite mentor and receive college credits as well as their regular wages. They face limited out-of-pocket costs, but they earn progressively higher wages as they advance through the program.

Apprenticeships could be game changers in early education, frontline healthcare, and other fields where a skilled workforce is essential for reaping the rewards of public investment but where wages remain low and working conditions poor. Awareness of how apprenticeship programs are designed and delivered—and how they differ in key respects from traditional higher education programs—can help policymakers identify opportunities for strategically leveraging them to professionalize workers in critical industry sectors. The aim of this paper is to expand understanding of how apprenticeships could benefit the early education sector.

THE PROMISE OF EARLY EDUCATION

Early childhood education's shift from a private, nonprofessional, and largely invisible activity to one anchored by billions of dollars in state and federal investments is an unlikely story. As record numbers of women entered the workforce in the '60s, '70s, and '80s, Americans increasingly worried that children would suffer from the absence of their mothers. A slew of studies set out to measure whether youngsters in early education centers were becoming less connected to their mothers or had difficulty forming relationships. What they found, instead, was that high-quality early education brought a net positive for many children. These youngsters benefitted from the daily activities, from the exposure to caring adults, and from the opportunity to engage in early learning.

Arguably the best-known study of the short- and long-term effects of early childhood education is the analysis of the High Scope Perry Preschool Project. The program randomly assigned 128 low-income minority children aged three and four to either a control group or a half-day pre-K program combined with home visits from teachers. After two years, the language and cognitive abilities of the students in the pre-K program were improved by about 0.90 standard deviations, equivalent to the typical test score gap between white and black students.⁸ Eliminating that gap has been the goal—and bane—of generations of education reformers. Evidence that it could be closed through high-quality early education was akin to discovering

that penicillin could cure infectious diseases. Education inequality became a solvable problem.

The long-term effects of the Perry Preschool Project offered the most emphatic case for early education. Children in the program showed higher test scores through middle school, better classroom behavior as reported by teachers, less involvement in delinquency and crime, fewer special education placements, and higher high school graduation rates. Furthermore, by age 40, the alumni of the Perry Preschool Project reported increased employment and earnings than their peers who had not attended pre-K and less likelihood of arrest or welfare dependency.⁹ Other similarly designed studies saw comparable results.¹⁰

Laying a Foundation for Success in School and Beyond

Advances in neuroscience over the last decade have shed further light on how children begin learning at birth and continue developing at a fast pace during the first years of life. In particular, young children thrive when they experience secure, warm relationships with responsive adults in a safe, caring environment.¹¹ As it becomes more common for both parents to work full-time, children's crucial first years of development are increasingly spent in the care of early education professionals.¹²

While high-quality early care and education are important for all youngsters, research suggests it is especially important for improving the life outcomes of children from low-income families. Almost half of all young children in the United States—47 percent—live in low-income households.¹³ As of 2014, nearly a quarter of all children under age six, or 5.5 million youngsters, had families with incomes below the federal poverty threshold. Young children exposed to prolonged periods of adversity and stress—experiences more familiar to children of low socioeconomic status—are at higher risk of developing impairments in learning, behavior, and physical and mental wellbeing.¹⁴

Differences in the size of children’s vocabulary can be detected as early as 18 months of age based upon parental levels of income and education. By age three, children with college-educated parents or caregivers have vocabularies that are two to three times larger than peers whose parents have not earned a high school diploma.¹⁵

Multiple meta-analyses conducted over the past decade have found quality pre-K education for three- and four-year-olds can produce an immediate effect of about half a standard deviation on cognitive development. This is the equivalent of moving from the 30th to the 50th percentile in test scores of student achievement. These gains are enough to cut in half the school readiness gap between children in poverty and their more affluent peers.¹⁶ Recent studies of state-funded pre-K programs in New Jersey and Washington show immediate learning gains that persist all the way into the third, fourth, and fifth grades.¹⁷

The multiple short- and long-term benefits derived from early education programs make them smart targets for public investment. In examining grade retention and later earnings among adults, studies of recent large-scale programs show a future savings of \$3 to \$7 for every dollar spent today.¹⁸ A December 2014 analysis by the President’s Council of Economic Advisers concluded that “the existing research suggests expanding early learning initiatives would provide benefits to society of roughly \$8.60 for every \$1 spent, about half of which

comes from increased earnings for children when they grow up.”¹⁹ It is difficult to think of any other public investment that promises such a high rate of return. Indeed, failing to invest in early education would be nothing short of “insanely stupid.”

Reaping the Return on Investment

The impact of any public investment aimed at eradicating social inequality hinges, in large part, on how effectively the program is designed and targeted. Multiple studies have shown that young children in classrooms with trained teachers learn better than those without them.²⁰ That means investment in early education programs must ensure that classrooms are led by skilled teachers. And, yes, teaching young children is challenging. It is not a matter of simply sitting students behind tiny desks to recite their numbers and letters or to sing songs and play games. It requires an understanding of the rapidly changing cognitive development process that begins with infancy and recalibrates as children become toddlers, then reach ages three and four. It also means being able to assess where a young child is on that continuum and to design appropriate activities that build on his or her learning.

A key discovery among education researchers is that early learning is cumulative. It is most effective when it is continuous and stacks on existing knowledge. In the view of many early education advocates, the lack of strong connections between pre-K and the grades that follow, including kindergarten, diminishes the potential rewards of early learning investments. This failure to coordinate means that many children lose ground when they transition from pre-K to the early elementary grades.²¹

As the field of early education has grown—along with awareness around the importance of skilled educators—so have efforts to clarify the professional competencies necessary to teach, rather than simply care for, young children. The National Association for the Education of Young Children (NAEYC) developed a detailed

list of the knowledge, skills, and competencies needed to teach young children. In 2015, the National Academies of Science, Engineering, and Medicine published its version of needed core knowledge and competencies (see **Foundational Knowledge and Competencies for All Adults with Professional Responsibilities for Young Children**).

Given the resounding evidence that skills matter, policymakers seeking a multiplier effect from early education investments will want to ensure that public funding supports programs with capable educators. The obvious way to achieve this is to require that providers employ teachers who meet a set of minimum qualifications. To be verifiable, those qualifications must be backed by a credential from a recognized authority. Policymakers could

require an occupational license issued by a city or state office, a professional certificate or certification issued by a recognized industry or professional body, or an educational certificate or degree issued by an institution of higher education. The challenge is figuring out which credential—or combination of credentials—best supports the goals driving the policy. And that is not an easy task.

Any credentialing decision quickly bumps up against other considerations. How long should the credential take to get? What skills and competencies should it cover? Who should be eligible for it? How much should it cost? Who should pay for it and how? How long should it last? Who should issue it? What impact will it have on the existing and future workforce? And so on.

A Day in the Life of an Early Educator

A typical day for a teacher of three-year-olds at an early education center requires a great deal of flexibility and patience, combined with an in-depth knowledge of child development and behavior management. In the morning, the teacher leads a morning meeting in which students greet each other by name, sing educational songs, predict the day's weather, and review the schedule of activities for the day.

Next, the students work at several activity stations the teacher has prepared in advance, such as finger painting, puzzles, a sensory table full of water or sand, a math table with objects to count, and a dramatic play area where students can dress up in different costumes. During center time, the teacher leads a small group of children in an activity designed to boost their letter-recognition skills.

Next, the teacher reads a book aloud to the class, pausing every couple of pages to ask open-ended questions and encourage the youngsters to predict what happens next. After lunch and a nap, it's time for science.

The teacher leads the class in a lesson about items that sink or float in water. After making predictions on chart paper, the teacher assists the students as they work in groups to put wood, cotton balls, and coins in a tub of water. Prior to dismissal, the students gather again to talk about their favorite part of the day and sing along to a counting song.

While these activities might not sound terribly complicated, they are far from random. There is clear evidence that skills and training matter.

Foundational Knowledge and Competencies for All Adults with Professional Responsibilities for Young Children

All adults with professional responsibilities for young children need to know:

- How a child develops and learns, including cognitive development, specific content knowledge and skills, general learning competencies, socio-emotional development, and physical development and health.
- The importance of consistent, stable, nurturing, and protective relationships that support development and learning across domains and enable children to fully engage in learning opportunities.
- Biological and environmental factors that can contribute positively to or interfere with development, behavior, and learning (for example, positive and ameliorative effects of nurturing and responsive relationships, negative effects of chronic stress and exposure to trauma and adverse events, positive adaptations to environmental exposures).

All adults with professional responsibilities for young children need to use this knowledge and develop the skills to:

- Engage effectively in quality interactions with children that foster healthy child development and learning in routine everyday interactions, specific learning activities, and educational and other professional settings in a manner appropriate to the child's developmental level.
- Promote positive social development and behaviors and mitigate challenging behaviors.
- Recognize signs that children may need to be assessed and referred for specialized services (for example, for developmental delays, mental health concerns, social support needs, or abuse and neglect) and be aware of how to access the information, resources, and support for such specialized help when needed.
- Make informed decisions about whether and how to use different kinds of technologies as tools to promote children's learning.

Source: Institute of Medicine (IOM) and National Research Council (NRC), *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation* (Washington, DC: The National Academies Press, 2015), 326. <http://www.nap.edu/catalog/19401/transforming-the-workforce-for-children-birth-through-age-8-a>.

UNIFYING THE WORKFORCE

Different credentials present different tradeoffs. Not that you would know it by watching the workplace. Despite an explosion in the types and varieties of professional credentials over the last two decades, the trend in credentialing requirements is frustratingly uniform. The bachelor's degree has become the default credential for a growing number of professions, particularly in emerging occupations in healthcare, education, and the service sector.²² Scores of professions that once did not require it—from nurses and bookkeepers to customer service representatives and human resources administrators—now do, despite little change in their underlying wages.²³

The field of early education is no exception. Over the last decade, degree requirements for early educators have been creeping up. In fact, 58 percent of state-funded pre-K programs in the 2014–2015 school year required lead teachers to possess a bachelor's degree, up from 45 percent in 2001–2002.²⁴ The trend began in 1990 when Congress set the first minimum credential requirement for Head Start, mandating that classrooms have at least one teacher with a Child Development Associate (CDA) credential. In 1998, Congress raised the minimum qualification again, calling for at least one teacher in each Head Start classroom to possess an associate degree in early childhood education and half of all teachers nationwide to have the same degree by 2003. Finally, in 2007, the degree requirement was

expanded again. Half of all teachers in a Head Start center would need bachelor's degrees by 2013.²⁵

In 2015, the National Academies issued a comprehensive report on the need to professionalize the early education workforce. The report recommended that all lead teachers of young children have at least a bachelor's degree,²⁶

Recommendation 2: Develop and implement comprehensive pathways and multiyear timelines at the individual, institutional, and policy levels for transitioning to a **minimum bachelor's degree qualification requirement, with specialized knowledge and competencies, for all lead educators working with children from birth through age eight.**

The 800-page report, *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*, included 12 other recommendations for professionalizing the field of early education, but none stirred as much controversy as the degree requirement. According to the report, fewer than half of educators working with children ages 3–5 in center-based settings in 2012 had a bachelor's degree. That figure drops to 19 percent for those working with infants and toddlers (ages 0–3).²⁷ It is a bold recommendation that, if widely implemented, would unquestionably transform the workforce, but at what cost and to whom?

The profound impact of a bachelor's degree requirement on the existing workforce can't have been lost on the National Academies. So why did it choose a B.A. over other types of credentials, like a license, a certification, or even an associate degree? One reason seems to be experts' general dissatisfaction with the most common non-degree credential qualification for early educators: the Child Development Associate certificate. The CDA was the first credential to emerge in the early education field. It requires only 120 clock hours of professional education plus on-the-job experience, so it can be earned in a short amount of time. It is affordable. And it provides third-party validation of skills and competencies for those who earn it.²⁸ But it is also widely considered inadequate for ensuring the quality of lead early educators. In particular, there is no evidence that educators with a CDA certificate have a greater impact on children's language and math skills than educators without the credential.²⁹

Still, the leap from a CDA to a bachelor's degree is a big one. Even the report's authors are candid about the dearth of evidence linking a bachelor's degree to better student outcomes.³⁰ The research on the value of professional training for improving student outcomes is compelling, but when it comes to the effects of a bachelor-degreed teacher over other types of trained educators, the results are mixed at best. A bachelor's degree isn't likely to harm the quality of teaching, but neither does it seem necessary.

Then why require workers to obtain such an expensive credential? The most likely explanation is hinted at in the report's subtitle: A Unifying Foundation. The degree requirement is seen as the best lever available to pull early childhood educators onto a level playing field with elementary school teachers, particularly teachers of grades K–3. By seeking parity between teachers who work with children before age five and those who work with children after age five, advocates hope to unify the field around the principle that early learning begins at birth and extends through age eight. That is the range that cognitive scientists have carved out for

early learning and, ideally, our primary education system would be designed in accordance. But our schools are not organized around the principles of early learning. Instead, they begin at ages four or five. Kindergarten classes, which are voluntary and consist of only half a day of instruction in many states,³¹ are not designed to build on a set of clear learning outcomes from pre-K in the same way that, say, first-grade teachers pick up where they know their kindergarten counterparts left off, and so on with second grade teachers, third grade teachers, on up through 12th grade.

Instead, kindergarten teachers must design lessons for students with a wide variety of pre-K experiences. Some may be in a school-based pre-K, some will come from state-funded pre-K provided by community organizations, some will arrive straight from home, and others will have experienced a diverse array of public and private early learning centers where they may, or may not, have been exposed to structured learning activities. Crucial opportunities to build cumulatively on learning from very early ages are often lost in the transition from pre-K to elementary education.³²

One step toward a birth-through-age-eight learning continuum would be the creation of a “unifying foundation” in the training and professional preparation of the teachers across the continuum. Many elementary school teachers currently view pre-K teachers—even those working in their schools—more as childcare workers than fellow teachers; they make little effort to coordinate the transition of children from the centers to their classrooms.³³ If pre-K and K–3 teachers understood themselves to be peers, similar to the way early and middle grade teachers do, the transitions for the children would be smoother and the building of the birth-through-age-eight continuum could be easier.

Teacher perceptions are not the only obstacle that early education advocates want to tackle through a degree requirement. Dismal pay and working conditions plague the early education sector, making it hard to recruit and retain high-quality workers. Nationally, pre-K teachers

earn, on average, about \$26,000 per year less than their elementary school counterparts.³⁴ The average wage among teachers of infants and toddlers is only \$9.77 an hour, or \$20,300 a year if the individual is working full time. That is barely above the federal poverty level for a family of two.³⁵ Many of these workers do not receive benefits or even stable schedules. Work environments can range from school settings with access to facilities like playgrounds, cafeterias, and libraries, to small centers, sometimes in private homes, with little support infrastructure.

Low wages and often difficult working conditions are widely seen as significant barriers to

Table 1 | Median Hourly Wages by Occupation, 2015

Occupation	Median Hourly Wage
Child Care Worker Employees, All Settings	\$9.77
Self-Employed Home Care Providers	\$12.44
Preschool Teachers, All Settings	\$13.74
All Occupations	\$17.40
Preschool Teachers in Schools Only	\$20.62
Kindergarten Teachers	\$24.83
Elementary Teachers	\$26.39

Source: Marcy Whitebook, Caitlin McLean, and Lea J.E. Austin, *Early Childhood Workforce Index 2016* (Berkeley, CA: Center for the Study of Child Care Employment, 2016), 10, <http://csce.berkeley.edu/files/2016/Early-Childhood-Workforce-Index-2016.pdf>.

Note: Kindergarten and elementary school teacher earnings are reported as annual salaries. Hourly wages were calculated by dividing the annual salary by 40 hours per week, 52 weeks per year.

professionalizing the field and attracting a more highly educated workforce. They also reinforce perceptions that the work of early education is low wage because it is low skilled. There is a hope that by increasing the educational requirements, providers will have to offer higher wages to attract and keep qualified teachers.

So the push toward a bachelor’s degree requirement could serve as a lever for improving the quality of the workforce, connecting early education more systemically to elementary education, and improving wages and job quality. Most fundamentally, the National Academies of Science, Engineering, and Medicine is trying to drive home the point that early educators are teachers and should be treated as such. If the clear majority of K–12 teachers hold at least a bachelor’s degree, why not our early childhood educators? Again, teachers are teachers.

When viewed through the lens of what early childhood educators and elementary school teachers do, there is little question that they all teach children. But when considered through the lens of the labor market—how they are hired, compensated, and advanced in their careers—there is little in common. Most workers teaching children under age five do so in different settings and for far less money than their counterparts in elementary schools.

Pre-K teachers and teachers of infants and toddlers seldom have employment contracts or collective bargaining processes like elementary school teachers. In the K–12 system, for example, it is common to see uniform pay scales that directly link compensation to years of classroom experience. Within the birth-to-five field (excluding pre-K teachers in public schools), such formal pay scales are rare, meaning there is less opportunity for steadily rising earnings throughout a teacher’s career.³⁶ Many educators who work with children up to age five have no employer-based healthcare benefits or access to paid leave.³⁷

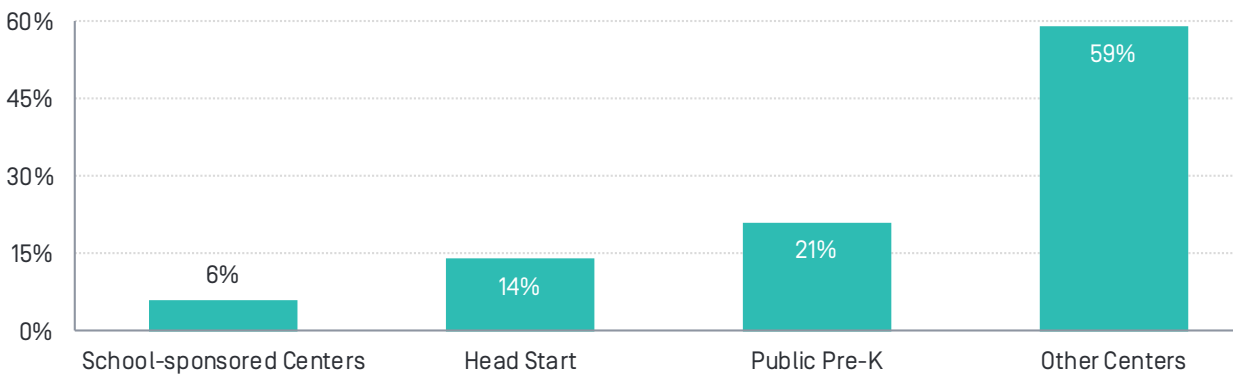
Early childhood educators are generally compensated from a combination of public

funding sources and fees paid by parents. These public funding streams are rarely the same as those used to pay teachers in the public education system, and they are subject to a distinct set of rules and reporting requirements. On the federal level, funding for children birth to age five is much more likely to emanate from the Department of Health and Human Services (HHS) than the Department of Education since HHS has oversight over Early Head Start, Head Start, and the Child Care and Development Block Grant (CCDBG) that provides subsidies to low-income families to pay for childcare. Similar patterns hold for state and local funding.

Finally, in strong contrast to virtually all K–12 teachers, only six percent of center-based early childhood educators work in school-sponsored

settings.³⁸ The rest are employed in a variety of public and privately funded settings, some connected to early education centers, others in private homes. This intensely fragmented and decentralized delivery system for early education creates an array of challenges to improving wages and working conditions. These challenges are different than those faced by elementary school teachers. Early childhood educators have many kinds of employers, most of them small businesses with few employees. These providers are more sensitive to changes in labor costs than public schools and have a limited ability to raise wages or expand benefits without raising fees, cutting back on their workforce, reducing the number of children served, or facing bankruptcy.

Figure 1 | Distribution of Center-Based Staff



Source: Office of Planning, Research & Evaluation, “Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE),” November 2013.

School-sponsored Centers: A public school district had administrative oversight or reporting requirements or funds the program.

Head Start: At least one child was funded by Head Start dollars, but the center-based program was not school-sponsored.

Public Pre-K: At least one child was funded by public pre-K dollars, but the center-based program was not school-sponsored, and no Head Start funding was reported.

Other Centers: All remaining programs offering ECE.

Degree Requirements Won't Change the Labor Market

If the degree requirement recommendation aspires to unify the field of early education around a birth-through-age-eight learning continuum, the key question is whether a bachelor's degree can alter the labor market for early education. For example, will it adjust how much these teachers are paid? Will it change their work arrangements, access to benefits, or job security? Will it reduce fragmentation in how early learning programs are delivered?

On each of these questions, there is little room for optimism.

When it comes to wages, we need look no further than the Head Start workforce over the last decade. Its bachelor's degree requirement has transformed the educational attainment levels of the Head Start workforce. Today, more than 70 percent of Head Start teachers have a B.A., compared with less than 25 percent in 2002.³⁹ But the effect on wages has been negligible. A recent report by Marnie Kaplan and Sara Mead found that salaries for Head Start teachers remain very low.⁴⁰ In 2015, a Head Start teacher with a degree received an annual salary of less than \$31,000 a year in 29 states and less than \$25,000 in five states.⁴¹ In 20 states, the average teacher salary in 2007, when the bachelor degree requirement was first announced, exceeded the average teacher salary in 2015.⁴²

Rather than improve wages, the degree requirement has significantly increased the cost and financial risk associated with becoming a Head Start teacher. Prior to the bachelor degree requirement, a Head Start teacher could become certified to teach with only an associate degree in early childhood education. A Head Start teacher can make marginally more than an early childhood educator with an associate degree, but the cost of entry to becoming a Head Start teacher has increased by a much greater margin—about \$30,000 for degrees earned at public colleges and universities—than the pay differential, which is about \$8,500 a year.⁴³ In fact, graduates of bachelor's degree programs

in early childhood education have the lowest lifetime earnings of all bachelor's degree holders.⁴⁴

The most effective way to raise the wages of entry-level workers is still the oldest way: through organizing and collective bargaining. According to *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*, pre-K and kindergarten teachers who are union members earn more than twice as much as those who are not.⁴⁵ But organizing the early education workforce and connecting it to the unions that negotiate wages and benefits on behalf of millions of public school teachers is not one of the report's recommendations.

The working conditions of early educators, meanwhile, are also unlikely to be affected by a degree requirement. The system of funding in the early education field—not the perception of its teachers—is what drives its fragmentation and decentralization. A degree requirement will not make state and local school systems expand the size and scope of their early childhood education centers, where working conditions and pay tend to be better. Nor will it change how federal and state programs channel their funding for early education through a decentralized system of public and private early education centers. Unless those funding sources, particularly the public programs, move toward more school-based provision of early education, there is little reason to expect a degree requirement will spark a recalibration of the early education market. Again, the most effective way to address working conditions is to organize workers, a point never raised in the Academies' report.

But They Will Transform the Workforce

Where a degree requirement will have an enormous impact is on the workers themselves. What we know about bachelor's degree completion rates gives us every reason to believe the requirement will change the face of early education. Because of work and family obligations, part-time study toward a degree will be the likeliest option for the existing, non-degreed early childhood workforce,

and part-time students are much less likely to finish degree programs. According to the National Student Clearinghouse, only about 21 percent of part-time students completed a bachelor's degree in six years.⁴⁶ Among part-time students over age 24, the rate was 28 percent. African-American and Latino students, meanwhile, were the least likely to complete their studies, with only about 14 percent earning a degree in six years.⁴⁷

In other words, we can expect that the workforce will become more stratified along race, income, and age. Early childhood educators holding degrees are more likely to be young and white, and educators without degrees more likely to be older and from communities of color. That is the case for our elementary teaching workforce, which is more than 80 percent white.⁴⁸ A bachelor's degree requirement has the potential to reduce the likelihood that children from low-income and racially diverse backgrounds will have teachers from their communities. This would come amid a growing body of evidence that students benefit from seeing teachers who look like them in the classroom.⁴⁹

However, it is not just the cost that makes a bachelor's degree such a poor fit for professionalizing the existing early education workforce. It is also the design. A bachelor's degree is a very time-consuming credential to earn. It is also a remarkably inefficient way to equip early educators with the knowledge, skills, and competencies outlined in the National Academies report and identified by key stakeholders like the Council for the Accreditation of Educator Preparation (CAEP) and NAEYC (see **Foundational Knowledge and Competencies for All Adults with Professional Responsibilities for Young Children**).

A bachelor's degree program typically takes at least four years to complete. Generally consisting of 120 credits or more, it can easily include 40 individual semester-long classes, a majority of which will have no specific relevance to early education. This is especially true during a student's first two years of study when courses are often selected to fulfill a college's "general education" requirements, which

may include from 10 to 15 lower division courses spread across the humanities, social sciences, and natural sciences. Another 30 credits or so—around 10 courses—will be electives. That leaves only 35 to 50 credits (12 to 15 courses) specific to education.

Take, for example, the bachelor degree program in early childhood education at [Central Michigan University](#). Of the 125 credits required for graduation, only a third (43) address early childhood education. The rest consist of general education courses, a foreign language requirement, and electives. Students pursuing the same degree at [William Patterson University](#) in New Jersey take only 30 credits in early education coursework, but they must first complete two history courses, two psychology courses, one anthropology course, two math and two science courses, pass two Praxis exams, and obtain a New Jersey Substitute Teaching License. This is all before they can matriculate in the College of Education as an early childhood major in their junior year.

To be sure, there are ways to make these programs more affordable for working adults and easier to complete. Community colleges, for example, offer programs of study that "stack" onto a bachelor's degree in early childhood education, reducing the cost of the first two years of a four-year degree. But those articulated programs almost always come with caveats and conditions. Credits rarely transfer smoothly from one institution to another and, when they do, the time period for transfer is usually narrow or restricted to a specific geographic area.⁵⁰

Online programs offer a way busy workers can study during off-hours, in the evenings, or on weekends. But online bachelor degree programs are plagued by deficiencies. They are often expensive, carrying a total average cost of over \$43,000.⁵¹ They require that students have regular access to computers and high-speed Internet. Completion rates are low for first-time, part-time, and low-income students, which accounts for the bulk of students coming from the incumbent early childhood education workforce.⁵² And, perhaps most importantly, they seem ill-suited for the hands-on and reflective

learning that early educators need to build new knowledge and skills into their practice.

States can use targeted financial assistance to help their existing early education workforces obtain college degrees. North Carolina's Teacher Education and Compensation Helps (T.E.A.C.H.) Early Childhood Scholarship Program is a good example. Targeting incumbent workers, the program provides tuition support to early educators seeking an administration credential, associate, bachelor's, or master's degree. The scholarship is only enough to support part-time study, but it covers some related expenses like books and transportation and includes a financial bonus for those who complete the program.⁵³

The U.S. Department of Education also administers a TEACH Grants program designed to expand the ranks of teachers from low-income and minority communities. But recipients must fulfill a four-year service requirement to work in elementary schools. That makes the grants of limited value to aspiring early educators since most of them will be working in centers, not schools. It is another example of how the distinct labor markets for early childhood educators and elementary school teachers make it difficult to design policies that treat them as a single workforce.⁵⁴

Luckily, other federal financial assistance programs can be leveraged to help ease the burden on students. With an average annual salary of \$20,000 to \$28,500,⁵⁵ most non-school-based early childhood educators will qualify for the federal Pell Grant Program, which provides as much as \$5,920 a year for up to six years.

There are other avenues for mitigating some of the cost of a degree program. Many students of four-year colleges and universities are eligible for federal tax credits. Student loan programs can also help offset the upfront cost of a degree although, given the low completion rates for part-time students combined with the low wages in the sector, there is a risk that students will be unable to repay their loans. In fact, loan default rates are highest among students who enrolled in but never finish occupationally focused certificate and associate degree programs.⁵⁶ Recent research by New America revealed that some colleges are limiting loans to students majoring in early childhood education due to a high default risk.⁵⁷

Financial assistance, in one form or another, may help students complete their educational requirement, although they may be exposed to significant financial risk along the way. What it cannot do, however, is address the poor fit that a lengthy bachelor's degree program—marked by significant coursework only marginally related to early education—is for an incumbent workforce that barely earns above minimum wage.

Most low-income and first-generation students will not make it to the finish line. This is especially likely for those studying part-time, online, or both. And the question for those who do complete: Will they be better off? The wages of birth-to-five educators who are not school-based pre-K teachers will be too low to offset the costs of the degree. Graduates of early childhood education programs sit at the bottom of the earnings list. Indeed, the best way for them to leverage their B.A. for better wages will be to leave early education and move into elementary school teaching or administration.

QUALITY AND EQUITY IN ONE APPROACH: APPRENTICESHIPS FOR EARLY EDUCATORS

A bachelor's degree imposes a heavy burden on early childhood educators, especially given the realities of their labor market, nor are bachelor's degree programs a particularly efficient or cost-effective way to prepare early educators for work. Moreover, a degree requirement is likely to exacerbate racial and class-based inequalities in the education workforce while also reducing diversity among early educators.

If a bachelor's degree, on its own, cannot change the wages or working conditions of early childhood educators is there some other professional development strategy that could?

Yes. It is a "registered apprenticeship." The term "apprenticeship" refers to an education model that combines on-the-job training and classroom instruction. It allows an individual to learn the skills necessary for a specific occupation while still working and earning a wage. The term "registered" refers to the rules and regulations that govern our national apprenticeship system and ensure that apprentices enjoy basic labor

protections, including progressive wage gains over the course of their program. The programs also meet a set of quality standards regarding length and content. Programs that are "registered" with either a state or federal apprenticeship office have met these baseline quality criteria and their graduates earn a formal certificate of completion issued by the U.S. Department of Labor.

Apprenticeship is not a new education model. Our formal national apprenticeship system dates to the 1937 Fitzgerald Act, but the practice itself stretches back centuries. Until quite recently, the model has seen little take-up outside the skilled trades in the United States. It has had almost no formal presence in education or healthcare, even though both sectors use similar methods of mentorship in their professional development process, whether they call them "clinicals," "residencies," or "student teaching." That, however, may be changing, and it is great news for early educators. Apprenticeship is not just an excellent and affordable way to teach new skills, it is also an effective strategy for increasing wages and improving working conditions.

Apprenticeship is more than just an education model. It is also an employment strategy that can improve job quality by advancing the wages and working conditions of participants.

Apprenticeships Build Skills & Improve Job Quality

Apprenticeship is an educational strategy well-suited for fields like early education where there is a need to professionalize the existing workforce. It is an approach that can use an individual's prior knowledge and experience in teaching related theory and general knowledge. More importantly, it is a strategy that does not require learners to leave their places of work or pay for their training. Rather, the acquisition of new skills and knowledge is simply part of the job, another task for which workers are remunerated. The apprenticeship also counts toward workers' career advancement. Apprentices are guaranteed paid release time to attend classes outside their workplace, and they have onsite mentors to support their on-the-job learning.

Like any education program, apprenticeships are designed to guide learners through predefined, cumulative learning outcomes, beginning with foundational knowledge and moving on to more advanced technical skills and competencies. For the apprentices, practice and theory are closely integrated, with theory learned primarily through a reflective process focused on doing. In strong contrast to traditional students, apprentices spend most of their time in the workplace, practicing new skills and applying theoretical concepts under the supervision of trained mentors. The classroom component of an apprenticeship is generally designed to build core math, science, and writing skills that might be harder to teach on the job. The classroom work is more "general" than the on-the-job component, but

it is structured and contextualized around the career for which the apprentice is being trained.

Apprenticeship is more than just an education model. It is also an employment strategy that can improve job quality by advancing the wages and working conditions of participants. Apprenticeships must be negotiated by an employer and a training provider, often a union. They are required by law to be a mix of structured on-the-job learning and classroom learning. That, in turn, provides opportunities for addressing how workplaces are organized and how they can be more learning-friendly. Workplaces that are more conducive to learning are better places to work.

Apprentices have onsite mentors and workloads that are structured around ensuring that they acquire new skills. They have scheduled time off to report to the classroom portion of their program. Wage improvements are guaranteed; they accompany new demonstrations of proficiency. A Registered Apprenticeship Program can ensure that a learner makes more money as he or she acquires more skills and that an apprentice's program of study is both relevant for the employer and provides general, transferrable skills and knowledge to the apprentice. They also create professional development opportunities for workers to become mentors.

Apprenticeship programs operate within the labor market, structuring the relationship between learners and employers for the mutual benefit of both. Institutions of higher education, by contrast, stand apart from the labor market. They are limited in their capacity to offer bachelor degree

programs that really meet the needs of working learners for better wages and working conditions. Accreditation requirements constrain their ability to award credit for learning that takes place at work or to even design a bachelor's degree program with fewer general education requirements.

Even efforts to deliver more competency-based programs, which allow adults to advance based on demonstrated ability rather than seat time, have rammed up against serious obstacles. Institutions struggle to convert their course-based approach into one that is organized around competencies and demonstrated learning. Regional accreditors are reluctant to approve the programs for fear that they will run afoul of federal regulations governing where learning can take place and how it is delivered. Today, there are no competency-based bachelor degree programs for early educators.

Philadelphia's Early Childhood Education Career Pathways Partnership

Philadelphia's ECE Career Pathways Partnership shows how Registered Apprenticeship Programs could transform the early education workforce more equitably, efficiently, and affordably than a stand-alone degree requirement. The two-year program will launch in the summer of 2017 with 30 early educators who will be registered as apprentices with their current employers. To be eligible for the program, an individual must be working in an early education center, have an employer willing to sponsor them, have already earned the CDA credential, and have no college degree.

Over the course of the program, the apprentices will progress through a structured education program that includes on-the-job and classroom-based learning. They will enroll at the Community College of Philadelphia (CCP), taking two to three courses per semester. They will be awarded nine credits for the CDA and earn nine credits for the on-the-job learning. They must complete the remaining 44 credits at CCP for an associate of arts degree in early childhood education.

Ideally, the apprentices attend classes during their regular work hours, avoiding the need to juggle studies while working full time. That is how apprenticeship programs function in countries like Germany and Switzerland. Some U.S. employers may grant apprentices permission to do so, but most apprentices likely will enroll in Saturday, evening, or online classes to complete the necessary coursework outside of work hours.

Each week the apprentices are guaranteed half a day offsite for tutoring and to participate in peer study groups organized by the District 1199C Training and Upgrading Fund. While on the job, each will have a dedicated mentor to ensure they are working their way through structured learning activities and to assess their progress. The mentors will go through a formal training process and will have access to mentors of their own, courtesy of the Delaware Valley Association for the Education of Young Children (DVAEYC).

The apprentices will incur minimal out-of-pocket expenses and will continue to earn their full wage. Every six months, as they complete key learning milestones, they will receive a small raise (averaging \$0.50 an hour). By the time they graduate, they will be making \$2.00 more an hour on average, have an associate degree, possess a journeyman's certificate of completion from the U.S. Department of Labor, and be qualified to serve as lead teacher in some state or city-licensed early childhood centers.⁵⁸ Compare that to a traditional two-year associate degree program in which a student pays tuition or secures grants and loans, completes around 20 college courses online, at night, or on weekends at a college while also working, and has no guarantee of a wage gain upon completion of the program.

The ECE Career Pathways Partnership argues for the broadening of programs and providers that can be leveraged for professionalizing early educators. The program brings together an array of partners that each contribute essential elements (see **The Early Childhood Career Pathways Partnership: Roles and Responsibilities**). The District 1199C Training and Upgrading Fund, a workforce intermediary with decades of experience with employers and

The Early Childhood Career Pathways Partnership: Roles & Responsibilities

- **The District 1199C Training and Upgrading Fund:** Coordinates the registered apprenticeship program across multiple employer sites and provides technical assessment, as well as the apprenticeship infrastructure, to support implementation. Manages and counsels apprentices and organizes study groups and tutoring to support academic success. Provides partner coordination to ensure the alignment of academic coursework with mentoring and student success.
- **Delaware Valley Association for the Education of Young Children (DVAEYC):** Trains onsite mentors and provides ongoing support. Designs competency framework and assessment scale for on-the-job learning, aligning them with quality criteria developed by the National Association for the Education of Young Children (NAEYC).
- **Philadelphia Community College:** Delivers classroom instruction and, based on feedback from onsite mentors, assesses on-the-job learning for purposes of academic credit. Will award an Associate of Arts (AA) in Early Childhood Education for graduates, with 62 credits that can count toward a B.A. in early childhood education.
- **Employers in the early education sector:** The program engages more than 19 employers who sponsor apprentices and work with the Training Fund, DVAEYC, and the partnership to support onsite mentoring. Employers have agreed to release time and progressive wage gains for apprentices.
- **Pennsylvania Department of Human Services, Office of Child Development and Early Learning:** Administers the T.E.A.C.H. Early Childhood® Pennsylvania Scholarship Program to cover tuition costs.
- **Mayor's Office of Education:** Promotes the apprenticeship program with the providers participating in the pre-K initiative for quality childcare in Philadelphia.
- **State Apprenticeship Training Council:** Responsible for reviewing and registering the apprenticeship programs and each of the apprentices. Will award a journeyman's certificate upon completion.

workers in the healthcare and education sectors, is leading the effort. The fund will support the initiatives of other partners, coordinating between employers and state and local officials, providing counseling and case management for apprentices and their mentors, and serving as a liaison with the state apprenticeship council.

This pilot project is financed through a combination of state, city, and philanthropic funds. The

William Penn Foundation is supporting much of the program development costs, including curriculum development for the apprentices and the mentors. The state is ensuring access to tuition assistance programs, notably the state T.E.A.C.H. scholarships modeled after the North Carolina program. City and state officials are also exploring how to leverage the Workforce Innovation and Opportunity Act for funding to support program development and tuition

assistance. The goal is to embed the program into state and city-funded early education centers and the funding streams that currently support them.

Although the program is just getting started, the design elements point to how cities and states should be thinking about the early education workforce. It is a robust program that is customized around the knowledge, skills, and abilities identified by each of the major quality bodies in early childhood education. It carries all the features of a traditional degree program, while also recognizing and awarding credit for on-the-job learning. The program aims to build core academic

skills and specialized knowledge in a contextualized fashion. It is affordable and accessible to the current workforce and is linked to a next career step. It works within the existing workforce rather than replacing it, and it helps workers build relationships and professional networks that should benefit them moving forward. Perhaps best of all, it will improve the wages and working conditions of a critical, but vulnerable, group of workers. Participating employers will need to organize their workplaces to support mentorship and on-the-job learning, which will benefit all workers, not just apprentices. By partnering with worksites where learning is valued, the program supports better places to work.

CONCLUSION

Is Washington, DC, “insanely stupid” for focusing on the qualifications of its early education workforce? Certainly not. The decision is grounded on evidence that well-trained educators can make a real difference in putting young learners on a solid path. In fact, as DC makes big investments in early childhood education, city officials would be derelict if they did not make provisions to ensure taxpayer dollars are going to high-quality providers. Qualification requirements are the most straightforward way to accomplish that. The city already requires bachelor’s degrees for its pre-K teachers, but they are part of the formal DC public school system and are paid the same as other

public school teachers.⁵⁹ The city stopped short of requiring bachelor’s degrees of lead teachers in city-licensed early education centers, opting instead for the more affordable associate degree for workers outside the public school system. DC also provides financial aid and support services to incumbent workers to help them meet the new requirement.

But concerns about the growing reliance on degrees, even an associate degree, are also well grounded. Some of the backlash to DC’s degree requirement is surely rooted in a misunderstanding of what educating small children actually entails. Still, there are good reasons to push back on

degree requirements for jobs that provide little financial security or economic mobility. Until early education advocates demonstrate that a degree pays off for the workers themselves, it will be difficult to build public support.

Philadelphia's ECE apprenticeship initiative promises to professionalize a critical workforce but in a way that recognizes and accommodates current labor market constraints. Apprenticeships are a far better alternative to academic degrees in jobs where workers have little leverage yet skill-building is essential if public investments are to be effective. The apprenticeship strategy professionalizes workers while and where they work, rather than forcing them to find nonwork time to attend college. An apprenticeship program is a collaborative effort under which the employer and the education provider bring employer resources to the table, providing an affordable and equitable path for incumbent workers to build their skills. Most importantly, apprenticeship programs can directly address the wages and

working conditions of early childhood educators in a way that higher education programs cannot.

It is too early to declare the Philadelphia program a success or to extract policy recommendations, but it is an experiment worth following closely. Early educators will be pivotal in leveling the playing field for low-income and disadvantaged children. But these workers must be able to reap professional benefits, too. Cities and states around the country are struggling to find affordable and equitable strategies to professionalize their early education and care workforces. The ECE Career Pathways Partnership provides an example of how to assemble the essential stakeholders to build apprenticeship programs that address the needs of the early education workforce, their employers and, most importantly, young children and their families. Best of all, it moves the field beyond the polarizing debate over degree requirements toward a practical approach that really can provide a unifying foundation for transforming the workforce.

Notes

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