Worthy Work, STILL Unlivable Wages: The Early Childhood Workforce 25 Years after the National Child Care Staffing Study

By Marcy Whitebook, Deborah Phillips, and Carollee Howes

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The Center for the Study of Child Care Employment (CSCCE) was founded in 1999 to focus on achieving comprehensive public investments which enable and reward the early childhood workforce to deliver high-quality care and education for all children. To achieve this goal, CSCCE conducts cutting-edge research and proposes policy solutions aimed at improving how our nation prepares, supports, and rewards the early care and education workforce to ensure young children's optimal development.

Suggested Citation:

Whitebook, M., Phillips, D., & Howes, C. (2014). *Worthy work, STILL unlivable wages: The early childhood workforce 25 years after the National Child Care Staffing Study.* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

Previous Citations:

Whitebook, M., Howes, C., & Phillips, D. (1990). *Who cares? Child care teachers and the quality of care in America. Final report, National Child Care Staffing Study.* Child Care Employee Project.

Whitebook, M., Phillips, D., & Howes, C. (1993). *National Child Care Staffing Study revisited: Four years in the life of center-based child care.* Child Care Employee Project.

Whitebook, M., Phillips, D., & Howes, C. (1998). *Worthy work, unlivable wages: The National Child Care Staffing Study, 1988-1997.* The Center for the Child Care Workforce.

Design: Mikko Design
Editor: Dan Bellm
Printer: Inkworks Press
Cover Photo Credit: Elizabeth Camacho
Back Photo Credit: NorthStar Learning Center

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Worthy Work, STILL Unlivable Wages was made possible through the generous support of the Heising-Simons Foundation and the W. Clement & Jessie V. Stone Foundation. We would also like to thank our previous funders and their staff, including the Foundation for Child Development, the David and Lucile Packard Foundation, the Ford Foundation, the Foundation for Child Development, the A.L. Mailman Family Foundation, and the Spunk Fund.

The views presented in this report are those of the primary authors only, and do not reflect the opinions of the report's funders, chapter and section co-authors, or those acknowledged on the following page for lending their expertise or providing input.

Acknowledgments

This report could not have been written without the extensive assistance of CSCCE Staff:

Ferheen Abbasi, Administrative Assistant
Lea J.E. Austin, Specialist
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We wish to extend our gratitude to the following individuals who shared their expertise and provided input into this report:

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This report is dedicated to the early childhood teachers, of whom we expect so much,
but to whom we still provide so little.

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CHAPTER 1

Introduction

"Good quality care requires an environment that values adults as well as children."

– National Child Care Staffing Study, 1989

The National Child Care Staffing Study (NCCSS),[1] released in 1989, brought national attention for the first time to poverty-level wages and high turnover among early childhood teaching staff, and to the adverse consequences for children of such staffing instability. In the succeeding 25 years, the national debate about the role of early care and education (ECE) in children's lives has shifted dramatically—above all, due to a recognition up to the highest levels of government that high-quality early learning boosts children's school readiness, and constitutes a wise economic investment in the nation's future.

Over the same period, private and public resources devoted to early care and education have expanded steadily; the landscape of early care and education programs and how they are funded has become even more complex; public pre-kindergarten (pre-K) programs are now a prominent player in this field; and rising expectations of greatly improved child outcomes in ECE have led to widespread efforts to upgrade the qualifications and skills of the teaching workforce. Children in ECE settings are substantially more diverse in terms of race, ethnicity, language, and special needs, all of which call for new knowledge and skills among their teachers. And as scientific understanding of the profound influence of children's early years on brain development, behavior, and learning has grown exponentially, it has become a high-stakes concern to assure that our nation's ECE settings provide high-quality, enriching experiences for young children.

This confluence of trends has spurred the most serious national conversation in decades about the current state of early care and education, and the most productive range of initiatives for ensuring that young children's critical early experiences will promote, not undermine, their lifelong learning and healthy development. This is a crucial moment for re-examining the status of the early childhood teaching workforce, and how our nation is preparing, supporting, and rewarding these teachers. Following an overview of the changing ECE landscape, this report offers a portrait of today's early childhood teachers as seen through four lenses:

- *Then and Now: Trends in Wages, Education, and Turnover Among Early Childhood Teachers, 1989-2014.* A comparison of available evidence reveals the extent of change in center-based teachers' wages, education, and rates of turnover over the past quarter century.

- *Economic Insecurity Among Early Childhood Teachers.* New evidence reveals the serious consequences of inadequate compensation on this predominantly female, ethnically diverse workforce.
- *The Public Costs of Inadequate Compensation.* An examination of how widely early childhood workers and their families use public benefits offers a first look at some of the hidden costs of the low wages endemic to this workforce.
- *Policy Efforts to Improve Early Childhood Teaching Jobs.* An appraisal of state and national efforts to improve the quality of early care and education in the U.S. focuses on how adequately these have addressed the low wages of the teaching workforce.

Lastly, the report offers our thoughts about a path forward, aimed at reinvigorating the national conversation on the status and working conditions of the millions of teaching staff, primarily women, who work in our nation's early care and education settings. Twenty-five years ago, our findings on the low status of this vital workforce led us to ask with a certain irony, "Who cares?" We hope that the new evidence presented here will mobilize deliberate and long-overdue action to ensure that we are not still asking, "Who cares?" twenty-five years from now.

A Note on Terminology

The varying terms used to describe those who earn their living by caring for and educating young children reflect assumptions about the nature of the work, the skills it requires, and the purpose of particular programs and services.[2] The term "child care teacher" used in the National Child Care Staffing Study encompassed those working in all types of center-based early care and education programs, but today, distinctions are often drawn between child care, public pre-kindergarten (pre-K), Head Start, and other early learning programs. In this report, we use the term "early childhood teacher" or "teaching staff" to encompass all those employed to work directly with young children in classrooms in center-based programs. We use more specific labels, such as "Head Start teacher," when we are referring to a particular type of program. The term "early childhood workforce" is used to encompass both center-based teaching staff and home-based providers, with one exception. In Chapters 3 and 5, we refer to "childcare workers" because we relied on data specific to the subcategory of the workforce as defined and labeled by the U.S. Census Bureau and the U.S. Department of Labor.[3] Elsewhere in the report, we refer to child care as two words.

The 1989 National Child Care Staffing Study: Who Cares? Child Care Teachers and the Quality of Care in America, Highlights of Major Findings

Classroom observations, child assessments and interviews with center directors and teaching staff in 227 child care centers in five U.S. metropolitan areas conducted in 1989, provided the following information about child care teaching staff and the quality of care. Teaching staff included all staff who provided direct care to children.

- The education of child care teaching staff and the arrangement of their work environment were essential determinants of the quality of services children received.
  - Teaching staff provided more sensitive and appropriate caregiving if they had completed more years of formal education, received early care and education training at the college level, earned higher wages and better benefits, and worked in centers devoting a higher percentage of the operating budget to teaching personnel.
- The most important predictor of the quality of care children received, among the adult work environment variables, was staff wages.
  - The quality of services provided by most centers was rated as barely adequate. Better quality centers had:
    - higher wages
    - better adult work environments
    - lower teaching staff turnover
    - better educated and trained staff
    - more teachers caring for fewer children
  - Better quality centers were more likely to be operated on a non-profit basis, to be accredited by the National Association for the Education of Young Children, to be located in states with higher quality standards and to meet adult-child ratios, group size, and staff training provisions contained in the 1980 Federal Interagency Day Care Requirements.
- Despite having higher levels of formal education than the average American worker, child care teaching staff earned abysmally low wages in 1989.
  - This predominantly female work force earned an average hourly wage of $5.35.

- Between 1977-1988, child care staff wages, when adjusted for inflation, had decreased more than 20%.
- Child care teaching staff earned less than half as much as comparably educated women and less than one-half as much as comparably educated men in the civilian labor force.

- Staff turnover had nearly tripled in the last decade, jumping from 15% in 1977 to 41% in 1988.
  - The most important determinant of staff turnover, among the adult work environment variables, was staff wages.
  - Teaching staff who earned the lowest wages were twice as likely to leave their jobs as those who earned the highest wages.
- Children who attended lower-quality centers and centers with more staff turnover were less competent in language and social development.
  - Low- and high-income children were more likely than middle-income children to have attended centers providing higher quality care.
- In 1989, child care centers in the United States received fewer governmental funds, were more likely to be operated on a for-profit basis, and cared for a larger number of infants than in the prior decade.

CHAPTER 2

Setting the Stage: The Changing Early Care and Education Landscape

In the 25 years since the release of the National Child Care Staffing Study, combined developments in science, practice, and policy have dramatically shifted the context for discussions about the status of early childhood teaching jobs, and the importance of attracting and retaining a well-prepared workforce that is capable of nurturing young children's learning, health and development. Three narrative elements of this changed early care and education landscape set the stage for the new evidence presented in this report:

- ***A developmental story.*** Since 1989, we have gained exponentially greater knowledge of the powerful role of children's earliest encounters with caregiving adults in setting a sturdy or fragile foundation for lifelong development.
- ***An economic story.*** There is now a far more widespread appreciation for the wise investment that high-quality early care and education (ECE) constitutes for children, families, and society at large.
- ***A policy story.*** For the first time since 1971, when national child care legislation made it all the way to a presidential veto, there is serious debate at the federal level, echoed in virtually every state, about the vital importance of improving the quality of early education, with vast implications for what we expect of the early childhood teaching workforce.

The Developmental Story

At the time when the National Child Care Staffing Study (NCCSS) was released, many landmark moments in our understanding of child development were still in the future. *Neurons to Neighborhoods* was ten years away from publication.[4] The Adverse Childhood Experiences study from the U.S. Centers for Disease Control and Prevention, linking early adversity to stress and compromised adult health and longevity, would not recruit its first subject for another six years.[5] The human genome had not yet been mapped.[6] The National Institutes of Health Study of Early Child Care and Youth Development, which would document the mediocre quality of child care across the U.S., and its costs to early learning and behavioral development, was in its earliest planning phase.[7]

This wealth of new scientific evidence, and the discussion of its implications for early development, have led to remarkable new insights about what it takes to ensure a healthy, safe, and nurturing start in life:

- Young children develop in an environment of relationships.[8] Responsive, sensitive, and secure adult-child attachments are developmentally expected and biologically essential; their absence signals a serious threat to child well-being, particularly during the earliest years, and this absence activates the body's stress response systems, with highly detrimental lifelong consequences.[9]
- Early deprivation that produces stress responses in young children and undermines their healthy development is not restricted to severe cases of physical abuse or highly depriving orphanage care. It is seen in the absence of sufficient attention, responsiveness, and protection on the part of a child's caregivers.[10]
- Early adverse experiences can change the chemistry of a child's genetic blueprint, and thus affect whether and how genes that affect such vital capacities as memory, responses to stress, and immune functioning are expressed. Resulting impairments in learning, physical health, and mental health have now been documented in scientific studies.[11]
- The consequences of a poorly calibrated stress response system early in life include highly unregulated emotions and behavior; compromised memory, attention, and immune and metabolic systems; and blunted responses to feedback—all essential capacities for early learning. Such wear and tear of stress can also lead to chronic physical disease and a shortened lifespan.[12]
- When combined with other sources of adversity and trauma, such as economic hardship and insecurity, excessive instability in household arrangements, or food insecurity, the negative consequences of unresponsive relationships mount exponentially.[13]
- Children form developmentally essential relationships not only with their parents but simultaneously with other regular caregivers, including early childhood teachers.[14] As with parents, these relationships can either buffer children from stress or create additional stress. Indeed, young children's secure relationships with their teachers have been found to play a protective role against stress; these children do not exhibit a pattern of rising stress hormone levels over the course of the day in child care.[15]
- Young children cared for by teachers who are rated as unsupportive, intrusive, and/or insensitive have been observed to display elevated stress hormones in child care, greater anxiety and vigilance, and compromised immune functioning (lower antibody levels), and have been reported by their parents to have more frequent infections.[16]

- Links between adversity, stress, and poor emotional-behavioral self-regulation are documented not only for children, but also for teachers, with consequences for teachers' own physical and mental health, and thus their capacity to support the learning and behavioral growth of young children—perhaps especially those who are more difficult to manage or prone to being fearful in groups, and who are thus in greatest need of sensitive and responsive care.[17]

This new evidence at the intersection of neurobiology, developmental science, and early education carries vast implications for how we think about children's early childhood teachers: their influence on early development; their responsibility in managing many children's first encounters with peers and providing most children's first experiences with a teacher; and the importance of their own well-being. In short, it ups the ante on what is at stake when children's earliest caregivers and teachers—two-thirds of whom have children of their own—[18] are themselves experiencing economic hardship, low social status, unsupportive and demanding work environments, clinical depression, and other chronic stressors frequently associated with early childhood work. It lends new urgency to the National Child Care Staffing Study's central lesson: *taking care of children requires taking care of their teachers.*

The Economic Story

Our knowledge about the role that early care and education plays in the nation's economic life has also advanced considerably since 1989. At the time when the NCCSS was released, researchers had yet to calculate the economic contribution of early care and education in terms of job creation and the demand for products, space and services; reduced absenteeism among employed parents; and contributions to the tax base and economic health of communities. "Return on investment" discussions based on longitudinal studies of the benefits of investing in high-quality early education were just taking root. Discussion of early education's economic implications for parents was focused solely on showing how it affected their job attendance and productivity on the job—but not yet demonstrating child care's relationship to overall parental health or stress.[19]

This cumulative evidence has led to widespread appreciation for the wise investment that high-quality early care and education constitutes for children, families, and society at large:

- Businesses benefit when employees have reliable child care. Numerous studies have reported cost savings related to lower rates of tardiness, absenteeism and turnover,[20] and greater concentration and productivity on the job among employees with children.[21] Additionally, a community's supply of high-quality child care has been associated with businesses' ability to recruit employees.[22]
- More than 40 state and local studies conducted from 1997 to 2010 quantified the vital role played by the early care and education industry in local, state, and regional economies.[23]

- A 2011 report on the California economy estimated annual gross receipts from early care and education (including parent fees and government subsidies) of at least $5.6 billion, and an additional estimated $500 million per year in state and local tax revenues.[24] Every dollar spent on ECE yielded two dollars in direct jobs (for ECE workers), indirect jobs (for ECE suppliers) and induced jobs (stemming from the purchase of goods and services by ECE workers), at an estimated $11.1 billion in ECE-related economic output.[25]
- Longitudinal evidence on high-quality early care and education programs has demonstrated that participating children living in poverty acquire stronger skills associated with school success, greater educational achievement, and lower rates of grade retention and participation in special education classes. Long-term benefits in adulthood include higher earnings, increased likelihood of college completion, better health, and lower rates of incarceration or use of public assistance.[26]
- Building on these longitudinal studies, other rigorous efforts have indicated that the economic benefits of high-quality early care and education programs outweigh the costs of providing them.[27] Estimated long-term savings range from three to seven dollars for every dollar spent on such programs, due to their positive role in shaping successful educational trajectories and a U.S. workforce better prepared to meet the challenges of the 21st century.[28]
- More recent studies of state pre-kindergarten programs have replicated this cost-effectiveness evidence, with savings ranging from three to five dollars for every dollar spent,[29] an impact larger than that of other high-profile educational interventions, such as class-size reductions in elementary school.[30]

This new evidence from the perspective of employers, policymakers, and economists provides a compelling case for the value of investing in a high-quality early care and education system, in order to ensure that all children are ready to attend school and to step onto a successful pathway of lifelong development. The centrality to this strong system of a competent, stable, and healthy early education workforce is now well documented and widely recognized, as has been the case for other occupational systems, such as nursing.[31]

The Policy Story

The release of the National Child Care Staffing Study in 1989 coincided with the first serious debates among federal lawmakers, since President Nixon's veto of the 1971 Comprehensive Child Development Act, about extending child care support to more low-income working parents and about the appropriate role for government in ensuring the quality of care provided by federal early care and education programs. Simultaneously, state policymakers were embarking on serious investments in preschool education as the first step toward school success, amid growing concerns about the "achievement gap" between children of different economic and ethnic groups. As of 1990, about a dozen states had invested in public pre-K programs.[32]

In 1989, more widespread uptake of state-funded public pre-K programs was several years' away,[33] and federal investment in public pre-K was 25 years in the future.[34] Early Head Start would not be launched for six years, and National Association for the Education of Young Children (NAEYC) accreditation for center-based early care and education programs was in its infancy. The first state Quality Rating and Improvement System (QRIS) would not be established for almost a decade.[35] State early learning guidelines for children prior to kindergarten, now ubiquitous, had yet to be written.[36]

In the years following the release of NCCSS, several major policy developments occurred:

- Within one month of the NCCSS release, Congress passed the Military Child Care Act of 1989 (MCCA) with the goal of improving child care provided on military installations, including provisions for substantially improved staff training and compensation (see Chapter 3), while also lowering parent costs for services.[37]
- In 1989, President Bush's Education Summit of the nation's governors convened, which would lead to the establishment of school readiness as the first among six National Education Goals.[38]
- In 1990, the Child Care and Development Block Grant (CCDBG) was enacted into law, and today remains the centerpiece of federal child care policy, codifying and expanding a market-based (voucher) approach to child care, with the effect of allowing the use of federal child care funds in for-profit and legally operating, informal home-based arrangements. The Block Grant paid minimal attention to quality, prioritizing access instead, but at funding levels one-half the amount that would have been provided by the 1971 Act. CCDBG targeted five percent of states' allotments to be used for child care quality improvements; staff compensation was included in a list of allowable, but not required, quality expenditures.[39]
- In 1990, Congress passed the 1990 Head Start Expansion and Quality Improvement Act,[40] which set aside 10 percent of funds for quality improvement initiatives, including staff compensation and benefits, and a requirement that 25 percent of any future funding increase be reserved for quality improvements.[41]

- In 1990, T.E.A.C.H. Early Childhood®, a model for providing scholarships to enable early childhood teachers across all licensed settings to advance their formal education, was launched in North Carolina.[42] T.E.A.C.H. included a modest raise for teachers who met their educational goals, and was soon implemented in other states.[43]
- The passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (commonly known as "Welfare Reform") increased federal child care funding by $4 billion, but also instituted work requirements that increased demand for child care subsidies, eliminated guaranteed child care subsidies for welfare recipients, and, as with the CCDBG, allowed funds to go to relatives and/or providers who were exempt from licensing. The Act set a four-percent share of CCDBG funds that states could use for quality improvements.
- In 2001, the National Research Council released *Eager to Learn: Educating Our Preschoolers,* which challenged the nation to upgrade the preparation and professional development of teachers in recognition of their essential role in achieving new national school readiness goals. This and other reports spearheaded rising expectations for teachers' knowledge and skills, prompting policymakers to increase teacher qualifications for public ECE programs, including Head Start and public pre-K.[44]
- The 2007 Head Start Reauthorization Act called for at least one-half of all Head Start teachers to obtain four-year degrees by 2013.[45] This goal has been achieved.
- The number of states offering public pre-K has grown from 13 in 1990 to 40 in 2013,[46] making pre-K programs and state Departments of Education significant players on the early childhood landscape.
- Federal policy also reflects a deepening commitment to early childhood education, most recently through Race to the Top–Early Learning Challenge Grants, Preschool Development Grants, and Early Head Start Child Care Partnerships.[47]

While these policy developments have dramatically changed the early care and education landscape over the past 25 years, it remains filled with differing programs and funding streams, with inconsistent attention to early education and quality improvement. The longstanding split remains between developmental, educational goals that have driven quality improvements, and goals that focus on ensuring access, at the expense of quality, in the context of incentivizing work among low-income mothers. Even with a focus on access, many eligible children remain on waiting lists for state pre-K, Early Head Start, Head Start, and subsidized child care programs, due to inadequate funding. And too many of the thousands of early childhood teachers who have risen to the challenge of increasing their education to meet the rising expectations of what high-quality early care and education can accomplish are still earning unlivable wages, as we discuss in the following pages.

Concluding Thoughts

In 1989, we concluded that evidence from the NCCSS revealed "a shaky foundation upon which to build a structure to house and nurture our children while their parents earn a living." Today, the explosion of new knowledge about what is at stake when young children fail to receive the supportive and sensitive care that their developing neurobiological systems require has coincided with powerful economic arguments for investments in high-quality early care and education. New evidence about the ways in which stress and economic insecurity challenge teachers' capacity to provide developmentally supportive care and education is lending scientific support to the claim that child well-being depends on adult well-being not only at home but in out-of-home settings. Yet the policy landscape remains fractured: expectations that early care and education programs can rectify disparities in what children know and can do when they enter kindergarten exist alongside funding streams that make, at best, modest investments in quality improvement. Accordingly, efforts to upgrade the qualifications of the early childhood teaching workforce are uneven. This is the context in which we now examine whether the shaky foundation of poor wages, high turnover, and vast variation across differing program auspices, as reported in the NCCSS, has been stabilized, or whether it still poses a hazard to young children and their families.

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CHAPTER 3

Then and Now: Trends in Wages, Education, and Turnover Among Early Childhood Teachers

"Despite having higher levels of formal education than the average American worker, child care teaching staff earn abysmally low wages"

– National Child Care Staffing Study, 1989

The National Child Care Staffing Study (NCCSS) was the first effort to examine child care from the dual perspectives of children and their teachers. It was designed to explore the link between the adult work environment in child care settings and the quality of the environments that children experience when in the care of these adults. The results provided firm evidence that these two environments are intimately linked. It also exposed the low salaries, minimal benefits, and high turnover rates that plagued the early childhood teaching workforce in 1989. The teachers who participated in the NCCSS earned, on average, $5.35 per hour, half as much as comparably educated women then in the civilian labor force. Only two-fifths of teachers received health coverage, and only one-fifth had a retirement plan. Inadequate compensation fueled teacher turnover, which exceeded 40 percent across the centers that comprised the NCCSS sample. Children in centers with both lower turnover and higher wages experienced higher-quality care and, specifically, were observed to spend more time engaged in positive interactions and appropriate activities with peers and teachers.

It was a clear and straightforward story—and it was replicated in other studies conducted in the succeeding years.[48] On the heels of the study's release, several important legislative actions were taken, including passage of the Military Child Care Act, the Child Care Development Block Grant, and the Head Start Expansion and Quality Improvement Act. Several prominent reports, as well as state and local advocacy efforts led primarily by teachers, called for greater attention to the urgent need for improved early childhood teacher compensation.[49] But research evidence, legislative proposals, well-intended reports, and public campaigns did not necessarily translate into tangible actions that improved the working conditions and compensation of this workforce. Have these working conditions, in fact, improved since the release of the NCCSS? What can we learn about trends that have characterized the early childhood workforce between then and now?

This chapter provides a comparison of available evidence on center-based early childhood teachers' wages, education, and turnover that spans the period from the time of the NCCSS to the current day. It addresses the question of what has happened to the compensation, qualifications, and stability of the workforce—and segments of the workforce—over the past quarter century. We draw upon data sources that cover all or a portion of the 1989 to 2014 period. Sometimes they address the full array of center-based ECE options; sometimes they address a single auspice. The need to draw upon such a diverse array of data to get a portrait of trends in the early childhood teaching workforce reflects the lack of a comprehensive, longitudinal data base about the early childhood workforce at this time. We provide a guide for readers to the data sources in the box below.

We examine national data from the Bureau of Labor Statistics spanning 1997 to 2013; a comparison of nationally representative data from the 1990 *A Profile of Child Care Settings* study and the 2012 *National Survey of Early Care and Education;* Program Information Reports from the Head Start program spanning 1997 to 2013; and information regarding the U.S. Department of Defense child care program, both prior to the Military Child Care Act of 1989 and today. This variety of data sources, spanning different time frames within the past 25 years and examining very different samples within the early childhood workforce, generates a patchwork quilt of evidence about trends over time. While the conclusions we provide at the end of this chapter draw out overarching observations, we encourage others to continue this work and, especially, to investigate the underlying conditions that have contributed to the findings of progress, stagnation, and even backsliding that our analyses have revealed.

A guide to data sources in Chapter 3

Data Variables	Bureau of Labor Statistics (BLS)	A Profile of Child Care Settings (Profile Survey)	National Survey of Early Care and Education (NSECE)	Head Start Program Information Reports (PIR)	Department of Defense
Years	1997, 2012, 2013	1990	2012	1997 2002 2007 2013	Pre-1990, 2014
Settings include	Center-based programs, no auspices/ funding identified	Center-based, including: • Head Start (funded) • Public-School Sponsored • Religious-Sponsored, Not for Profit • Other Sponsored, Not for Profit or Run by Government Agency • Independent Not for Profit or Run by Government Agency • For Profit, Chain or Franchise • For profit, Independent	Center-based, including: • Head Start (funded) • Public-School Sponsored • Religious-Sponsored, Not for Profit • Other Sponsored, Not for Profit or Run by Government Agency • Independent Not for Profit or Run by Government Agency • For Profit, Chain or Franchise • For profit, Independent	Head Start	Department of Defense center-based on-site child development program
Specific job titles/ roles (e.g., teacher, assistant, etc.)	Childcare Workers, Preschool Teachers (includes all levels of teaching staff)	Lead Teachers, Teachers	Lead Teachers, Teachers	Teachers, Assistant Teachers	Program Associates (includes all levels of teaching staff)
DATA AVAILABLE					
Wages	✓	✓	✓	✓	✓
Educational attainment		✓	✓	✓	✓
Turnover		✓	✓	✓ (Teacher only)	✓

A National Portrait of Wages, 1997 and 2012-2013

The Bureau of Labor Statistics (BLS) collects annual data on salaries by occupation. With regard to the early childhood workforce, there are two occupational classifications—childcare workers and preschool teachers—that are most pertinent.[50] We compare wages for these two groups within the center-based early childhood workforce to four other workforce categories: kindergarten teachers, nonfarm animal caretakers, fast food cooks, and tellers in financial services.[51] (See Appendix **Table A3.1** for state specific data). We also compare them to the civilian labor force as a whole. Further, we place these wage trends in the context of trends, reported by the U.S. Bureau of the Census, in family payments for child care (of all types).[52] Finally, we draw upon the 2012 *National Survey of Early Care and Education (NSECE)* as part of our examination of compensation among bachelor's degree-level teachers both within the ECE workforce and in comparison to the civilian labor force.[53]

As was the case at the time of the NCCSS, childcare workers earned less than animal caretakers in both 1997 and 2013 (see **Table 3.1**). "Fast food cooks" is one of the few occupations tracked by the BLS that paid even poorer wages than the $7.03 paid to childcare workers in 1997 and the $10.33 paid in 2013. Preschool teachers have fared somewhat better (with a 2013 hourly wage of $15.11), and their wage advantage over childcare workers grew over time. They earned close to 30 percent more than childcare workers in 1997, with this gap growing to 46 percent in 2013 as a result of the large increase in wages (15 percent growth in real dollars) that preschool teachers experienced over this sixteen-year period (see **Figure 3.1**). Nevertheless, preschool teachers earned 60 percent of the hourly wage of kindergarten teachers in 2013. Childcare workers' wages grew by only one percent between 1997 and 2013, a smaller increase than that of fast food cooks and tellers, indicating that their wages during this period barely kept pace with the increasing cost of living.

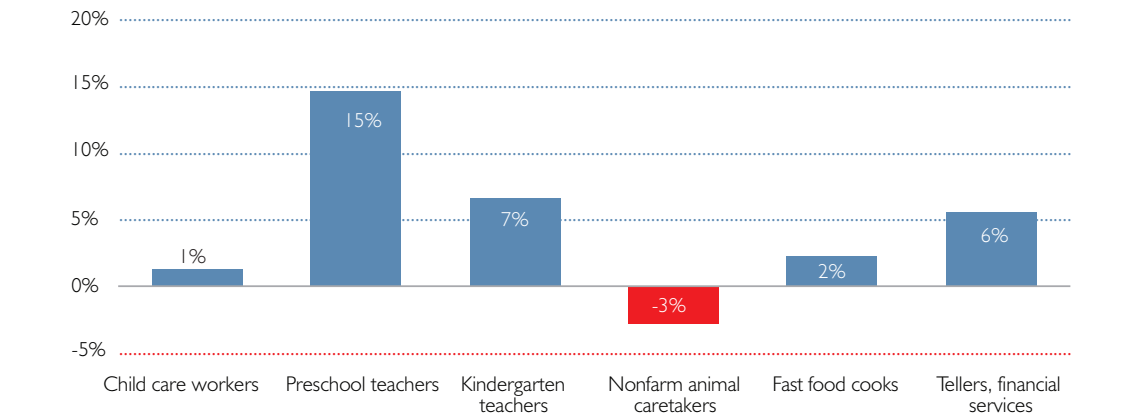
TABLE 3.1
Mean Hourly Wages, by Occupation, 1997 and 2013

Occupation	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage
Child care workers	$7.03	$10.20	$10.33
Preschool teachers	$9.09	$13.19	$15.11
Kindergarten teachers	$16.42	$23.83	$25.40
Nonfarm animal caretakers	$7.67	$11.13	$10.82
Fast food cooks	$6.11	$8.87	$9.07
Tellers, financial services	$8.24	$11.96	$12.62

SOURCES: Occupational Employment Statistics (OES) Survey, Bureau of Labor Statistics, Department of Labor: http://stats.bls.gov/oes/; $1 dollar (1997) to $1.45 (2013) - CPI Inflation calculator: http://data.bls.gov/cgi-bin/cpicalc.pl.

Note: Hourly wages calculated by dividing the annual mean wage by 40 hours per week, 52 weeks per year.

FIGURE 3.1: Percentage Change in Real Hourly Wages, by Occupation, 1997 to 2013

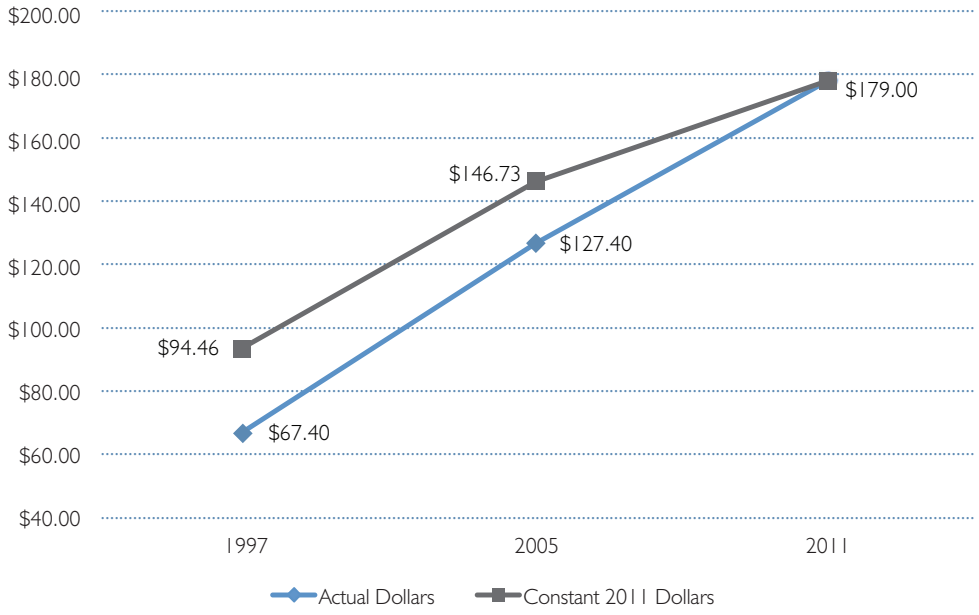


SOURCE: Occupational Employment Statistics (OES) Survey, Bureau of Labor Statistics, Department of Labor: http://stats.bls.gov/oes/; $1 dollar (1997) to $1.45 (2013) - CPI Inflation calculator: http://data.bls.gov/cgi-bin/cpicalc.pl

This relatively modest (and highly uneven) growth in wages for early childhood teachers contrasts sharply with trends in family payments for child care (see **Figure 3.2**). Between 1997 and 2011, average weekly child care payments for children under five years of age more than doubled, from $67.40 in 1997 to $179.00 in 2011 (an 89 percent increase in constant 2011 dollars).

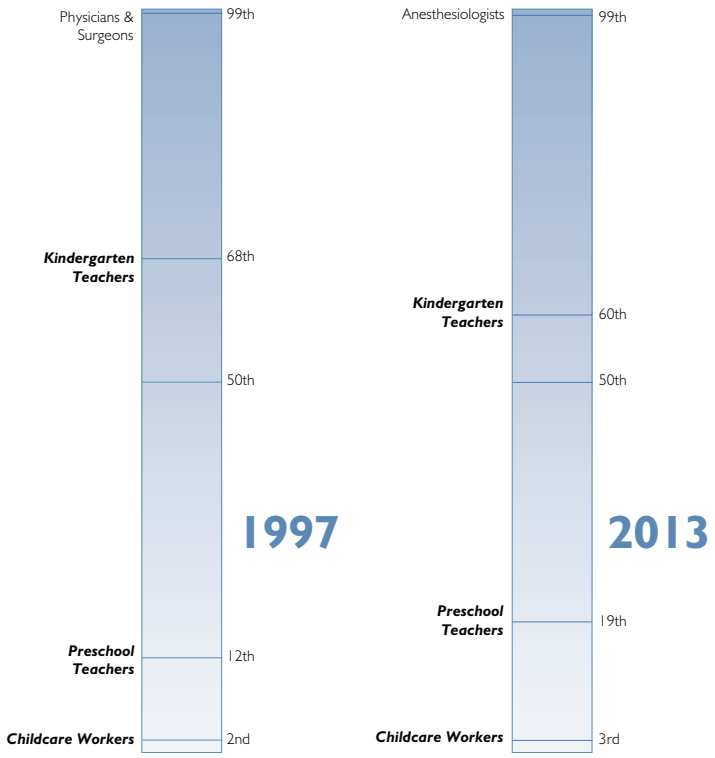
In both 1997 and 2013, childcare workers remained stuck at the second or third percentile in the BLS rankings of occupations by mean annual salary (see **Figure 3.3**). Among the occupations that shared these rankings with childcare workers are food preparation workers, parking lot attendants, bartenders, hotel desk clerks, and laundry and dry-cleaning workers.[54] Preschool teachers rose from the 12th to the 19th percentile position in this ranking (currently shared with school bus drivers and mobile home installers), while kindergarten teachers actually dropped from the 68th to the 60th percentile.

FIGURE 3.2: Average Weekly Child Care Payments of Families with Mothers Present and Children Under 5 Years: 1997, 2005 and 2011



SOURCES: Laughlin, L. (2013). Who's minding the kids? Child care arrangements: Spring 2011. Current Population Reports, P70-135. U.S. Census Bureau, Washington, DC; Laughlin, L. (2010). *Who's minding the kids? Child care arrangements: Spring 2005/Summer 2006.* Current Population Report, P70-121. U.S. Census Bureau, Washington, DC; Smith, K. (2002). *Who's minding kids? Child care arrangements: Spring 1997.* Current Population Reports, P70-86. U.S. Census Bureau, Washington, DC.

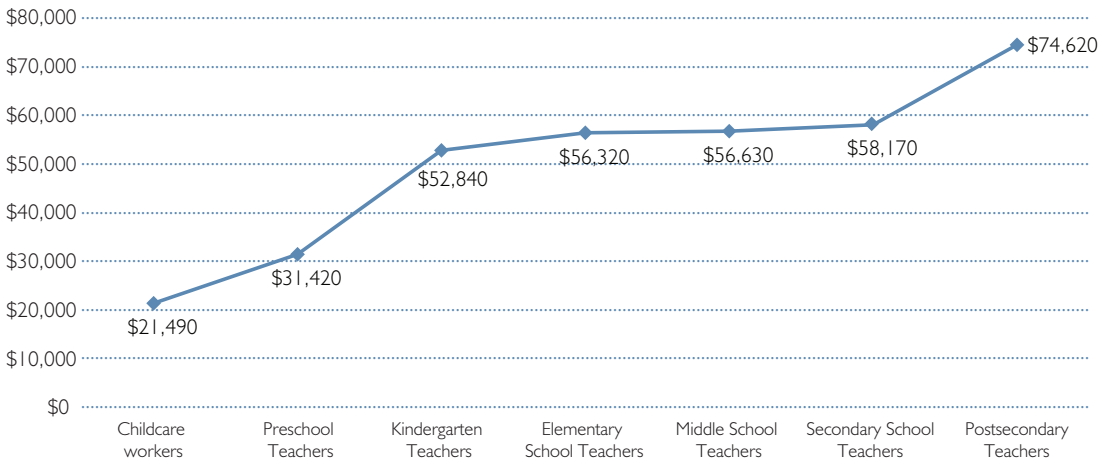
FIGURE 3.3: Selected Occupations Ranked by Mean Annual Salary, 1997 and 2013



SOURCE: Occupational Employment Statistics Survey, Bureau of Labor Statistics, Department of Labor: http://www.bls.gov/oes/current/oes_nat.htm.

Figure 3.4 provides a striking illustration of the relationship between teacher salaries and the age/grade level of the children for whose education they are responsible. Childcare workers include those responsible for infants and toddlers. Preschool teachers primarily educate three-, four-, and five-year olds. Kindergarten teachers earn over 68 percent more per year than preschool teachers, but somewhat less than elementary school teachers. Teachers across the first through twelfth grades earn quite comparable salaries, but there is another leap to a much higher salary for post-secondary teachers.

FIGURE 3.4: Mean Annual Salary of Teachers, by Student Age/Grade Level, 2013

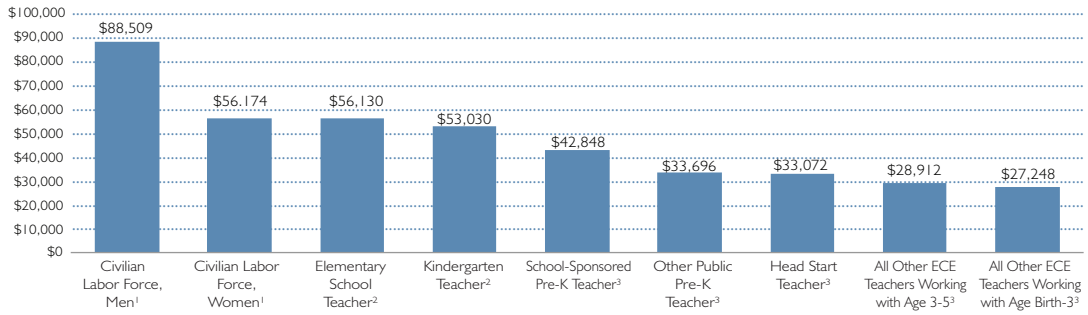


SOURCES: Occupational Employment Statistics Survey, Bureau of Labor Statistics, Department of Labor: http://www.bls.gov/oes/current/oes_nat.htm.; DeNavas-Walt, C., & Proctor, B. D. (2014). *Income and Poverty in the United States: 2013. Current Population Report.* U.S. Census Bureau, Washington D.C., pp. 60-249.

Some of the stair-step pattern in salaries by the age of the children being taught is undoubtedly associated with the higher educational credentials required of teachers working with older students. But, this pattern also characterizes teachers with bachelor's degrees. **Figures 3.5** and **3.6** reveal the exceedingly low premium that is placed on bachelor's degrees within the early care and education field, relative to degreed teachers in K-12 education and in the civilian labor force as a whole. Even relatively well-paid pre-K teachers in school-sponsored settings with bachelor's degrees earn, on average, only 80 percent of the compensation of comparably educated kindergarten teachers. In community-based public pre-K and Head Start programs, teachers with bachelor's degrees earn only two-thirds of what kindergarten teachers earn. And those who work in other early care and education settings with three to five year olds earn two-thirds of what their comparably educated colleagues earn in school-sponsored pre-K settings and half of what their colleagues who teach kindergarten earn. The disparities in relation to elementary school teachers are even greater, particularly for those early childhood teachers with degrees who work with infants and toddlers (see **Figure 3.7**).

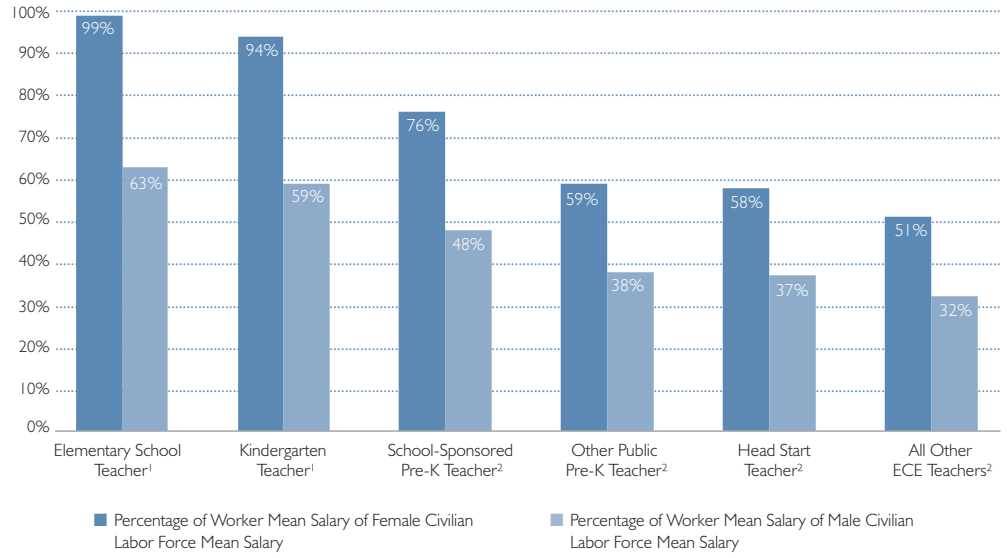
When compared to the civilian labor force, the gap in wages is even more striking. Pre-K teachers in school-sponsored settings with bachelor's degrees earn, on average, three-quarters of the compensation of comparably educated women in the civilian labor force, and less than half of the compensation of comparably educated men. Teachers who work in settings other than Head Start and pre-K programs earn half of the wages of women and one-third of the wages of men in the civilian labor force, respectively.

FIGURE 3.5: Mean Annual Salary of Teachers with a Bachelor's or Higher Degree, by Occupation and for the Civilian Labor Force, 2012



[1]Current Population Survey (CPS), United States Census Bureau: http://www.census.gov/hhes/www/cpstables/032013/perinc/pinc03_000.htm. Civilian labor force information was only for males and females over 25 years old.
[2]Occupational Employment Statistics Survey, Bureau of Labor Statistics, Department of Labor: http://bls.gov/news.release/ocwage.htm.
[3]National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings, National Survey of Early Care and Education (NSECE).* OPRE Report #2013-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Tables 12 and 19. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf. Annual wages calculated by multiplying the hourly mean wage by a year-round, full time hours figure of 2080 hours.

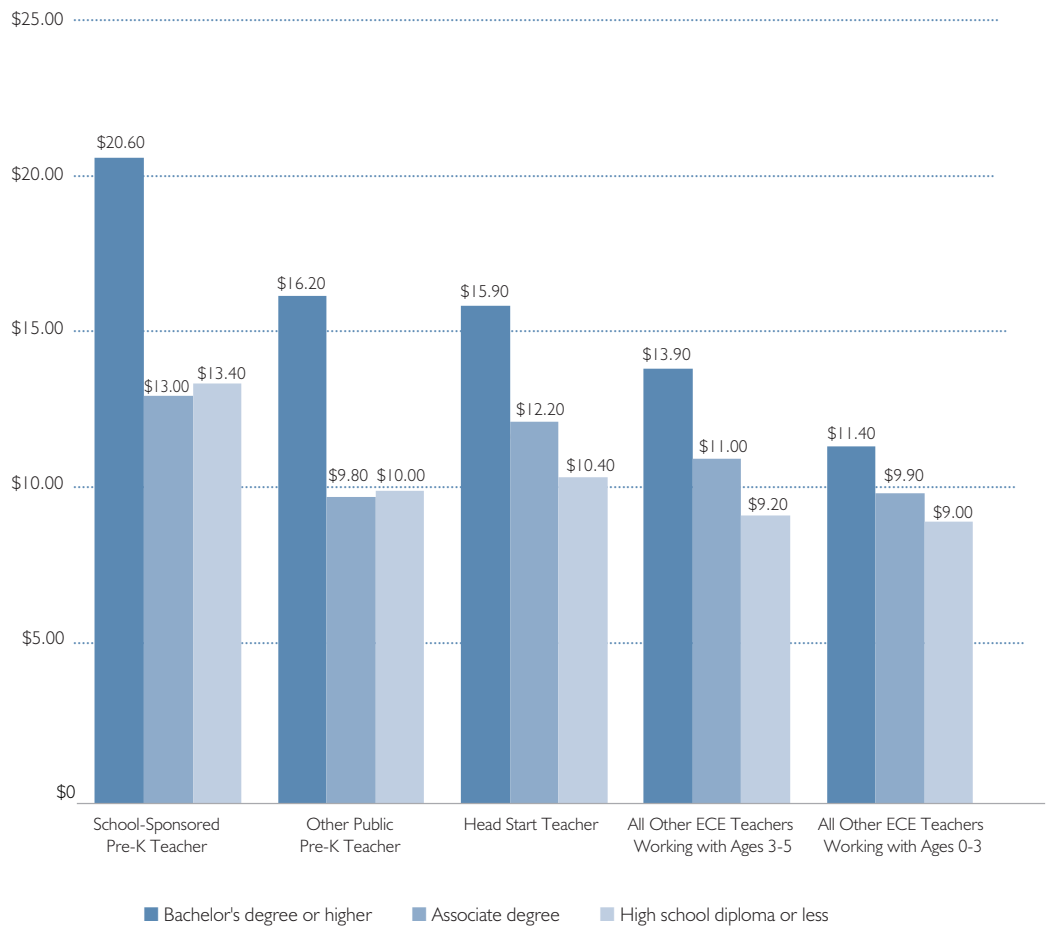
FIGURE 3.6: Percentage of Mean Annual Salary Earned by Center-Based Early Childhood Teachers with a Bachelor's or Higher Degree of the Mean Annual Salary for the Male and Female Civilian Labor Force with a Bachelor's or Higher Degree, by Occupation, 2012



SOURCES:
[1]Occupational Employment Statistics Survey, Bureau of Labor Statistics, Department of Labor: http://bls.gov/news.release/ocwage.htm.
[2]National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings, National Survey of Early Care and Education (NSECE).* OPRE Report #2013-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

The same stair-step pattern characterizes early childhood teachers with associate degrees and those with only high school degrees (see **Figure 3.7**).[55] Among these less well-educated teachers, however, there appears to be some premium placed on educational attainment for those who work in school-sponsored pre-K programs, but far less for those who work in other center types. As a point of reference, census data indicate that the average hourly wage across all occupations for workers with a bachelor's degree in 2012 was $28.92 per hour.[56]

FIGURE 3.7: Median Hourly Wages of Center-Based Early Childhood Teachers, by Degree Level, 2012



SOURCE: National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings, National Survey of Early Care and Education (NSECE).* OPRE Report #2013-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Tables 18, 19, 21, and 22. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/nsece_wf_brief_102913_0.pdf.

Note: Interpret School-Sponsored Pre-K Teacher and Other Public Pre-K Teacher Associate degree data with caution due to small sample size.

Discussion

This national portrait of early childhood teacher compensation explores wages over time, investigates wages within the early care and education (ECE) field, and compares wages to K-12 teachers and the civilian labor force as a whole. It exposes the entrenched disparities in wages that denigrate the early childhood workforce and fuels their economic insecurity.

In both 1997 and today, childcare workers earn about two-thirds of what preschool teachers earn, which places them barely above the poverty level for a family of three;[57] preschool teachers earn about 60 percent of what kindergarten teachers earn. Even when restricted to teachers with a bachelor's or higher degree, teachers of three to five year olds who do not work as pre-K or Head Start teachers earn two-thirds of what their counterparts in school-sponsored pre-K earn; those who work with infants and toddlers earn 55 percent. School-sponsored pre-K teachers with bachelor's degrees earn 80 percent of what kindergarten teachers with degrees earn. Disparities in comparison to teachers of older children and to the female civilian labor force are even more striking – a pattern that has endured in the face of extensive evidence regarding the relative importance for future learning and development of the educational experiences that children encounter in the earliest years of life.

Childcare workers have also experienced no increase in real earnings since 1997, and, as was true in 1989, still earn less than adults who take care of animals, and barely more than fast food cooks. Those who work as preschool teachers have fared somewhat better; their wages have increased by 15 percent in constant dollars since 1997, although their wages remain low. In contrast, parent fees have effectively doubled from $94 to $179 per week in constant 2011 dollars. While there are no available data to explain this glaring gap between trends in parent fees and teacher wages, it is abundantly clear that families cannot bear the burden of addressing the imperative to provide more equitable compensation for their children's early childhood teachers.

A Profile of Child Care Settings: 1990 and National Survey of Early Care and Education: 2012[58]

(section co-authored by Rupa Datta, Senior Fellow and Vice President, NORC, University of Chicago[59])

A Profile of Child Care Settings study,[60] conducted in 1990, provided the first representative portrait of the supply and characteristics of formal early care and education (ECE) programs in the U.S. since the National Day Care Study was conducted in 1976-77.[61] The *National Survey of Early Care and Education* (NSECE), conducted in 2012, provided an update of the Profile survey.[62] This section focuses on preliminary findings regarding the formal center-based workforce providing direct care and education for young children, based on data from the Profiles and NSECE surveys. Specifically, we examine 22-year trends in the educational levels, wages, and departure/turnover rates of teaching staff (primarily lead teachers and teachers, unless otherwise noted)[63] in formal center-based programs that served three- to five-year-olds (either exclusively or with other age groups) who were not yet in school.

Introduction to the Surveys and Center Sample

The sampling frames for both surveys consisted of the child care centers, early education programs, and home-based child care providers that were licensed or registered by the state or county in which they were located, supplemented with others such as Head Start programs, programs based in religious institutions, and pre-K programs that are not licensed in all locales.[64] For this report, the sample of centers was restricted to those that included three- to five-year olds (not yet in school) among the children served and that provided services to a majority of non-special needs children. (Approximately 4.4 percent of the centers participating in the Profile survey and 2.9 percent of NSECE centers predominantly served children with special needs.) To develop a sample of comparison centers, we drew upon both surveys' questions regarding center sponsorship and auspice, and, in the case of the NSECE, we also relied on a question regarding Head Start enrollment.[65] The final auspice/sponsorship categories used in this report are seen in **Table 3.2**.

Number and Distribution of Centers: 1990 and 2012

The Profile survey produced a count of 71,259 centers in 1990 that served preschool-age children and that were not primarily for children with special needs. The NSECE produced a count of 118,220 such centers, representing 66 percent growth in the total number of centers serving preschool-age children in the U.S. (see **Table 3.2**). The distribution of types of centers has shifted somewhat over time towards a larger share of Head Start-funded centers and a declining share of religious-sponsored, non-profit centers. These data should, however, be interpreted with caution, given the different ways in which the two surveys identified Head Start centers.[66]

TABLE 3.2
Count and Percentage of Centers as Reported in *A Profile of Child Care Settings* (1990) and NSECE (2012), by Center Auspice

	Profile Count of Centers (1990)	NSECE Count of Centers (2012)	Profile Percentage of all Centers (1990)	NSECE Percentage of all Centers (2012)
Head Start (funded)	6,437	21,560	9%	18%
Public-school Sponsored	5,469	7,240	8%	6%
Religious-sponsored Not-for-Profit	10,622	8,310	15%	7%
Other-sponsored, Not-for-Profit or Run by Government Agency	5,646	7,690	8%	7%
Independent, Not-for-Profit or Run by Government Agency	17,963	35,330	25%	30%
For Profit, Chain or Franchise	4,181	5,750	6%	5%
For Profit, Independent	20,941	32,350	29%	27%
All Centers	71,259	118,220	100%	100%

SOURCE: Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 1.* Princeton, NJ: Mathematica Policy Research, Inc.; National Survey of Early Care and Education Team. (2014). *National Survey of Early Care and Education.* Original analyses conducted for this report.; CPI Inflation calculator: http://data.bls.gov/cgi-bin/cpicalc.pl.

Note: see endnote #65 for discussion of type of center categories.

Teacher Educational Levels

The source of information on teacher educational levels differed across the Profile and NSECE surveys. In the Profile survey, center directors reported on the educational levels of lead teachers and teachers. In the NSECE, a classroom-based instructional staff person selected at random reported on her own educational level. To provide relatively comparable data, the staff persons from the NSECE data included in this report are restricted to lead teachers and teachers, and do not include teacher assistants or aides. In addition, the Profile question about teacher educational levels included the Child Development Associate (CDA) credential among the response options; the NSECE did not. As a result of this difference in the non-degree response options across surveys, we focus on trends in the share of classroom teachers, excluding assistant teachers and aides, who had either an associate degree or a bachelor's degree.

Table 3.3 presents results for the share of teachers with less than a bachelor's or associate degree (including the CDA credential in 1990), with an associate degree, and with a bachelor's

TABLE 3.3
Degree Attainment of Teachers[1] as Reported in *A Profile of Child Care Settings* (1990) and NSECE (2012), by Center Auspice

	Profile No Degree or Credentials (1990)	NSECE No Degree or Credentials (2012)	Profile Associate Degree (1990)	NSECE Associate Degree (2012)	Profile Bachelor's Degree or Higher (1990)	NSECE Bachelor's Degree or Higher (2012)	Profile Associate Degree + Bachelor's Degree (1990)	NSECE Associate Degree + Bachelor's Degree (2012)
Head Start (funded)	8%	18%	18%	31%	45%	51%	63%	82%
Public-School Sponsored	7%	14%	6%	9%	88%	76%	94%	86%
Religious-Sponsored, Not-for-Profit	30%	35%	11%	13%	50%	52%	61%	65%
Other Sponsored, Not-for-Profit or Run by Government Agency	20%	30%	19%	24%	52%	46%	71%	70%
Independent, Not-for-Profit or Run by Government Agency	29%	34%	13%	17%	49%	49%	62%	66%
For Profit, Chain or Franchise	45%	44%	11%	10%	31%	50%	42%	59%
For Profit, Independent	40%	60%	12%	15%	35%	25%	47%	40%
All Centers	29%	40%	13%	18%	47%	42%	60%	60%

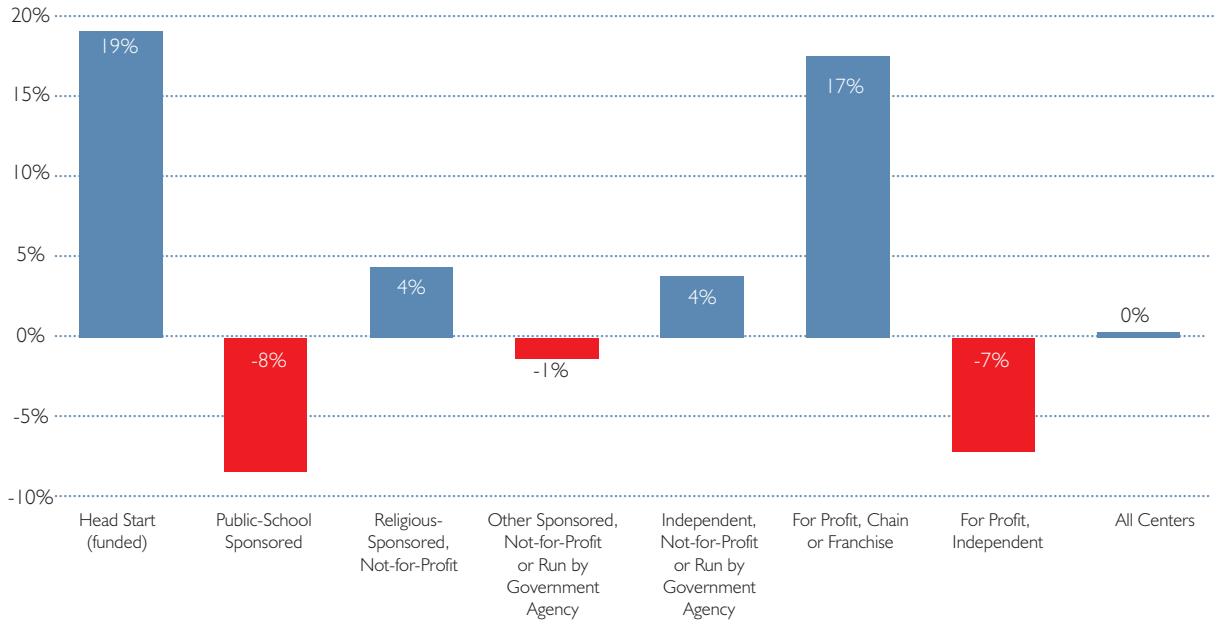
SOURCES: Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 1*. Princeton, NJ: Mathematica Policy Research, Inc.; *National Survey of Early Care and Education Team*. (2014). National Survey of Early Care and Education. Original analyses conducted for this report.; CPI Inflation calculator: http://data.bls.gov/cgi-bin/cpicalc.pl.

[1]Profile Sample data based on director reports of educational levels of lead teachers and teachers. NSECE data based on teacher and lead teacher self-reports of educational levels.

degree, by center type in 1990 and 2012. **Figure 3.8** illustrates trends in the average share of teachers with either an associate or bachelor's degree across this 22-year period.

The broad portrait with regard to teacher education is one of overall stability in the share of degreed teachers in center-based programs across the two surveys (three out of five teachers with degrees) over this 22-year period. This portrait, however, hides wide disparities in degreed teaching staff across programs of differing auspices that have persisted for 22 years, and a slight decline in the share of bachelor's level (or higher) teachers in some auspices.[67] In 1990, public school-sponsored centers stood out as employing a larger share of degreed teachers (notably, bachelor's-degreed teachers) than any other type of center. In 2012, Head Start centers joined public school-sponsored centers as having a highly educated teaching staff, with over 80 percent having associate or bachelor's degrees, likely as a result of explicit policies aimed at increasing the educational level of Head Start teachers. In contrast, both types of for-profit centers, in both survey years, had notably lower percentages of degreed teachers despite substantial growth in the share of such teachers in for-profit chains.

FIGURE 3.8: Change in Percentage of Teachers[1] with Associate or Bachelor's Degrees as Reported in *A Profile of Child Care Settings* (1990) and NSECE (2012), by Center Auspice



SOURCE: Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). A profile of child care settings: Early education and care in 1990, Vol. 1. Princeton, NJ: Mathematica Policy Research, Inc.; National Survey of Early Care and Education Team (2014). National Survey of Early Care and Education. Original analyses conducted for this report.

[1]Profile Sample data based on director reports of educational levels of lead teachers and teachers. NSECE data based on teacher and lead teacher self-reports of educational levels.

Teacher Wages

The source of information on staff wages also differed across the Profile and NSECE surveys. In the Profile survey, center directors reported on the pre-tax salary of a randomly selected teacher (not assistant teacher) of children ages three to five; in the NSECE, a classroom-based instructional staff person selected at random (restricted to lead teachers and teachers of three- to five-year-old children for the purposes of our analysis) reported on her own pre-tax salary. All responses were converted to hourly wages for purposes of comparison. **Table 3.4** presents results for average hourly teacher wages by center type in 1990 and 2012 in both actual and real dollars. The wage data from the two nationally representative surveys are not comparable with the BLS wage data presented previously in this chapter. They not only span different periods of time, but the national survey data reported here are specific to lead teachers and teachers. The BLS data are reported for childcare workers and preschool teachers, without regard to their professional role.

TABLE 3.4
Hourly Wages of Teachers[1] as Reported in *A Profile of Child Care Settings* (1990) and NSECE (2012), by Center Auspice

	Profile 1990 Mean Hourly Wage	Profile 1990 Mean Hourly Wage in 2012 Dollars	NSECE 2012 Mean Hourly Wage	Percentage Increase in Mean Hourly Wage: 1990-2012 Dollars
Head Start (funded)	$9.67	$16.99	$17.90	5%
Public-School Sponsored	$14.40	$25.30	$26.20	4%
Religious-Sponsored, Not-for-Profit	$8.10	$14.23	$15.40	8%
Other Sponsored, Not-for-Profit or Run by Government Agency	$8.46	$14.86	$17.60	18%
Independent, Not-for-Profit or Run by Government Agency	$7.40	$13.00	$16.80	29%
For-Profit, Chain or Franchise	$5.43	$9.54	$12.20	28%
For-Profit, Independent	$6.30	$11.07	$11.90	8%
All Centers	$7.49	$13.16	$15.70	19%

SOURCES: Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 1*. Princeton, NJ: Mathematica Policy Research, Inc.; *National Survey of Early Care and Education Team*. (2014). National Survey of Early Care and Education. Original analyses conducted for this report.

[1]Profile survey data based on director reports of wages of lead teachers and teachers of 3-5 year olds. NSECE data based on teacher and lead teacher (of 3-5 year olds) self-reports of wages.

The average hourly wage paid to lead teachers and teachers of preschool-age children across all center types was $7.49 in 1990 (equivalent to $13.16 in 2012 dollars) and $15.70 in 2012, representing a 19-percent increase in real wages (constant 2012 dollars) over this 22-year period. This average increase, however, hides the vast range in real wage growth — from 3.6 percent in public school-sponsored centers to over 29 percent in independent, non-profit, or government-run centers – that affected teachers working in different sectors of the center-based child care market. The average hourly wage for teachers was highest for public school-sponsored centers in both 1990 and 2012 ($14.40 and $26.20, respectively, a 3.6 percent increase in constant 2012 dollars). The wages of teachers in Head Start centers were the next highest after those in public school-sponsored centers, with hourly wages of $9.67 in 1990 and $17.90 in 2012 (a 5.4 percent real increase). Public-school sponsored centers constituted 6.1 percent of all centers in 2012 in our analyses; Head Start centers were 18.2 percent of the 2012 sample of centers (see **Table 3.2**). In both 1990 and 2012, for-profit chains and independent for-profit centers paid the lowest wages. However, for-profit chains and independent, non-profit, or government-run centers showed the most dramatic increases in wages over this time period, both increasing by over 25 percent.

Staff Turnover/Departure

Both the Profile and NSECE surveys relied on center directors to report annual turnover/departure numbers. The pertinent question in both surveys was phrased identically ("how many __ have left the program in the last 12 months?"), however, the Profile survey asked specifically about lead and other teachers (excluding assistant teachers and aides), while the NSECE asked about all staff working directly with children in such a way that lead teachers and teachers could not be separated from assistant teachers and aides. As a result, the 1990 and 2012 turnover/departure data are not comparable, although the direction of any bias that is introduced is difficult to estimate. Any comparisons across the Profile and NSECE data should be interpreted with caution; comparisons within each survey (e.g., across center types) are not compromised.

Table 3.5 presents the overall center turnover/departure rates, the percentage of centers with any turnover, and the turnover/departure rates for those centers with any turnover by type of center in 1990 and 2012.

In 1990, the average annual teacher turnover/departure rate was 25 percent. In 2012, the average annual classroom staff turnover/departure rate was 13 percent, closer to the turnover rate of 15 percent reported in the 1977 National Day Care Study.[68] Turnover/departure rates among centers that experienced any turnover were 50 percent in 1990 and 25 percent in 2012. In both survey years, turnover/departure rates among the centers with any turnover were double the rate for centers as a whole. Finally, in both surveys, the share of centers experiencing any turnover/departures during the prior year remained constant at half of all centers. As a point of reference, Bureau of Labor Statistics data indicate that the rates of separation (e.g. quits and layoffs) across all non-farm occupations have slowed in recent years.[69]

TABLE 3.5

Annual Staff/Teacher Departure Rates[1] as Reported in *A Profile of Child Care Settings* (1990) and NSECE (2012), by Center Auspice

	Profile: Mean Departure Rate (1990)	NSECE: Mean Departure Rate (2012)	Profile: Percentage of Centers with Any Departures (1990)	NSECE: Percentage of Centers with Any Departures (2012)	Profile: Mean Departure Rate in Centers with Any Departures (1990)	NSECE: Mean Departure Rate in Centers with Any Departures (1990)
Head Start (funded)	20%	10%	31%	44%	64%	21%
Public-School Sponsored	14%	14%	23%	51%	60%	28%
Religious-Sponsored, Not-for-Profit	23%	8%	54%	41%	41%	21%
Other Sponsored, Not-for-Profit or Run by Government Agency	25%	13%	53%	51%	47%	23%
Independent, Not-for-Profit or Run by Government Agency	25%	11%	52%	42%	48%	25%
For-Profit, Chain or Franchise	39%	27%	77%	84%	50%	31%
For-Profit, Independent	27%	16%	50%	57%	53%	27%
All Centers	25%	13%	50%	50%	50%	25%

SOURCES: Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 1*. Princeton, NJ: Mathematica Policy Research, Inc.; *National Survey of Early Care and Education Team*. (2014). National Survey of Early Care and Education. Original analyses conducted for this report.

[1]Profile survey data based on director reports of turnover ("left program in past 12 months") among lead and other teachers. NSECE data based on director reports of all staff who work directly with children. NSECE reports use the terminology of "departure rates."

There was, however, substantial variation in turnover/departures by center type within both surveys. In both 1990 and 2012, both types of for-profit centers experienced the highest turnover/departure rates. The type of center with the lowest turnover rates varied across years and across the measure used to assess such rates. In both survey years, public school-sponsored centers had overall turnover rates below 15 percent, but relatively high turnover rates among the centers with any turnover. Head Start centers also had relatively low overall turnover rates in both survey years, and a relatively lower number of centers with any turnover.

Discussion

This preliminary view of changes over time in the center-based child care workforce in the U.S., provided by two nationally representative surveys conducted more than two decades apart, reveals:

- no change in the percentage of lead teachers and teachers with associate and bachelor's degrees across all center types,
- close to a 20-percent increase in lead teacher and teacher wages across all types of centers,
- an enduring overall 50-50 split across centers with and without teaching staff turnover in the prior year, and
- a possible decline in overall staff turnover back to mid-1970 levels.

These changes occurred in the context of sizeable growth in the number of center-based programs serving preschool-age children in the U.S.

Importantly, each of these overall trends camouflages large and persistent disparities by center auspice that tend to favor public school-sponsored and Head Start centers, and leave for-profit centers at a relative disadvantage. This pattern is especially strikingly for teacher education and wages. The average wage increase, for example, reflects a vast range from 3.6 percent to over 29 percent in wage growth by center sponsorship. With regard to both education and wages, lead teachers and teachers in the non-profit sector fared better than those in the for-profit sector in both 1990 and 2012. Nevertheless, for-profit chains exhibited the largest increase in both degreed teachers and wages, bringing their teaching staff qualifications closer to those of non-profit centers than was the case in 1990, but still leaving teacher wages substantially lower than in any of the types of non-profit centers tracked in the two national surveys. It is also notable that center types that exhibited improvements in the share of degreed teachers between 1990 and 2012 did not necessarily exhibit improved wages. The turnover numbers are not comparable across surveys, leading us to caution against drawing any firm conclusions about turnover trends. In both 1990 and 2012, however, non-profit centers of all types had lower turnover rates and a smaller share of centers experiencing any turnover than did for-profit centers.

Historically, early care and education in the U.S. has been characterized by fragmentation and wide variation in what children and families experience in different sectors of the market. The trends reported here confirm that these aspects of the field remain in the face of significant growth in centers, and despite significant changes in the early care and education landscape over the past two decades. Public school-sponsored and Head Start centers have been in the vanguard of the growing emphasis on school readiness within the early care and education field. In both 1990 and 2012, public school-sponsored centers employed relatively well-educated teachers and, accordingly, paid the highest wages in the field. Head Start has made deliberate and successful efforts to improve teacher qualifications, but improvements in wages have not kept pace. The remainder of the field, despite some clear efforts to make improvements, as seen, for example, with the for-profit chains, has continued to lag behind, with rare exceptions. These programs that are neither public school-sponsored nor Head Start centers provide the vast majority of early care and education in this country.

Head Start Program Information Report, 1997-2013

(section co-authored by Stephanie Schmit, Senior Policy Analyst, Center for Law and Social Policy)[70,71]

Since 1979, all Head Start grantees and delegates, including Head Start preschool, Early Head Start, Migrant and Seasonal Head Start, and American Indian and Alaskan Native programs as they were established, have been required to complete a Program Information Report (PIR) on an annual basis. These reports provide extensive information on participating children and their families, program staff, and program features and services. This section focuses almost exclusively on data from Head Start preschool programs. We examine trends in salaries, turnover, and teacher and assistant teacher education. To provide context for these data, we include information on trends in program enrollment, total teaching staff, and federal appropriations for the program. With the 2013 PIR data providing the most current portrait of Head Start preschool, we used 1997 and 2007 as our data points for examining trends in teacher and assistant teacher education and wages.[72] Turnover data were not collected prior to 2002, and so 2002 and 2007 provide our data points for examining trends in turnover. The education, wage and turnover data from the PIR are not comparable with the Head Start data from the two nationally representative surveys presented previously in this chapter. They not only span different periods of time, but the PIR data reported here include teachers and assistant teachers, while the Profile and NSECE data do not include assistant teachers.

As context for the trends reported in this section, **Table 3.6** provides information on total cumulative enrollment, total teaching staff, and federal funding levels during the years for which we report PIR data.

TABLE 3.6
Head Start Total Enrollment,[1] Total Teaching Staff, and Federal Funding Levels[2] as Reported in the PIR, by Comparison Years

Year	Enrollment	Teachers	Assistant Teachers	Funding Levels
1997	850,855	36,322	38,699	$3,980,546,000
2002	911,730	43,348	45,461	$6,536,570,000
2007	940,492	44,839	46,462	$6,888,571,000
2013	932,164	44,973	46,233	$7,573,095,000

SOURCE: Office of Head Start. (1997, 2002, 2007, 2013). *Head Start Program Information Report (PIR)*. U.S. Department of Health and Human Services, Administration for Children and Families.

[1]Children enrolled at any point, including those who do not complete the year.

[2]Funding levels reflect each year's actual federal appropriations: http://eclkc.ohs.acf.hhs.gov/hslc/data/factsheets/2013-hs-program-factsheet.html.

Teacher and Assistant Teacher Educational Levels

Since 1997, the share of Head Start teachers with a degree has increased by 61 percent, and the share of assistant teachers with a degree has increased by 24 percent (see **Table 3.7** and **Table 3.8**). In just the last six years, the share of teachers with bachelor's degrees has increased by 17 percent, and the share of assistant teachers with associate and bachelor's degrees has increased by eight percent and five percent, respectively (see **Figure 3.9**).

TABLE 3.7
Head Start Teacher Credentials and Educational Levels as Reported in the PIR, by Comparison Years

Year	No Degree or Credential	Credential	Degree in ECE/Related Field
1997[1]	10%	56%	34%
2007	5%	15%	79%
2013	2%	4%	95%

SOURCE: Office of Head Start. (1997, 2007, 2013). *Head Start Program Information Report (PIR)*. U.S. Department of Health and Human Services, Administration for Children and Families.

[1]1997 data for teacher education also includes Early Head Start teachers and Migrant and Seasonal Head Start teachers.

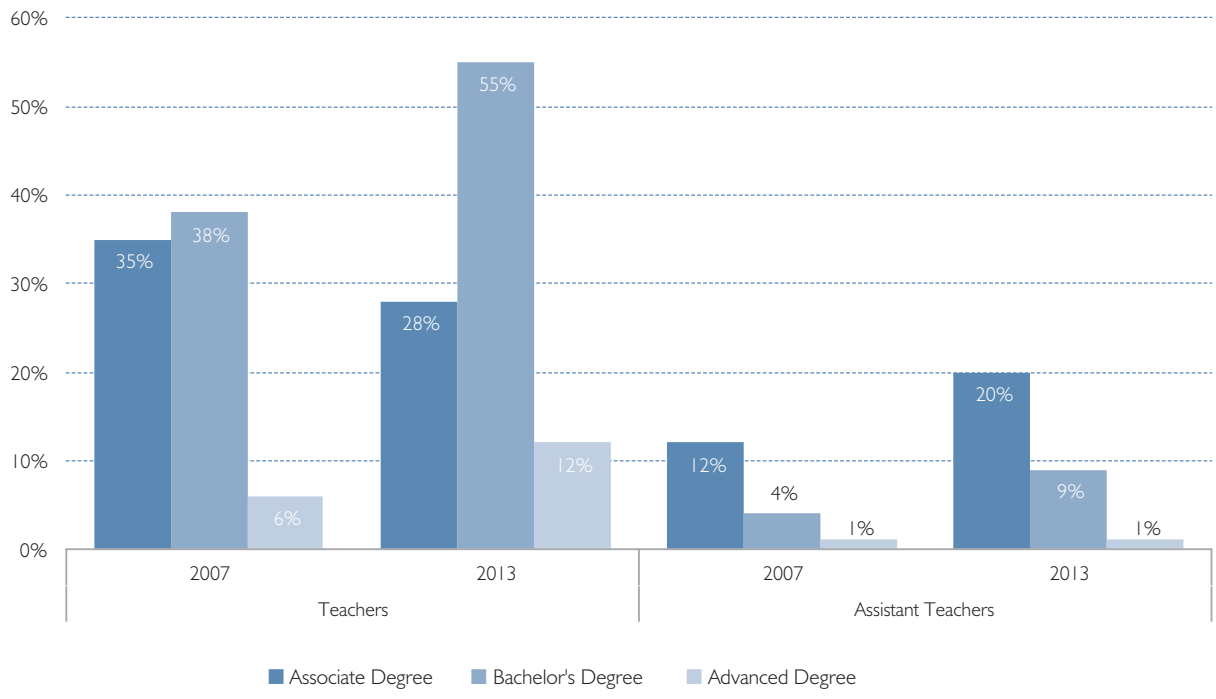
TABLE 3.8
Head Start Assistant Teacher Credentials and Education Levels as Reported in the PIR, by Comparison Years

Year	No Degree or Credential	Credential	Degree in ECE/Related Field
1997[1]	70%	24%	6%
2007	56%	28%	16%
2013	29%	41%	30%

SOURCE: Office of Head Start. (1997, 2007, 2013). *Head Start Program Information Report (PIR).* U.S. Department of Health and Human Services, Administration for Children and Families.

[1]1997 data for teacher education also includes Early Head Start teachers and Migrant and Seasonal Head Start teachers.

FIGURE 3.9: Educational Attainment of Head Start Teachers and Assistant Teachers as Reported in the PIR, by Comparison Years



SOURCE: Office of Head Start. (2007 and 2013). *Head Start Program Information Report (PIR).* U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved fromhttp://eclkc.ohs.acf.hhs.gov/hslc/data/pir.

Teacher and Assistant Teacher Wages

These sizeable increases in the educational levels and credentials of Head Start teachers led to modest salary increases of 18 percent for teachers and 12 percent for assistant teachers between 1997 and 2007. However, the ongoing increases in teacher qualifications since 2007 have not been matched with greater compensation. In fact, teacher and assistant teacher salaries have actually declined in real dollars since 2007 (see **Table 3.9** and **Figure 3.10**).

Teacher Turnover

Teacher turnover rates have remained at 14 to 15 percent per year for the past decade, with only about a quarter of programs experiencing no turnover (see **Table 3.10**). The share of teachers ascribing their departures to compensation has hovered around 30 percent for this period, as well. Individual state data further reveal that about 30 states had average teacher turnover rates at or above 15 percent (31 states in 2007, and 29 in 2013) and about a dozen states had turnover rates at or above 20 percent (12 in 2007, and 13 in 2013). (State data available from authors.)

TABLE 3.9
Head Start Annual Teacher and Assistant Teacher Salaries in Actual and Real Dollars as Reported in the PIR, by Comparison Years

Year	1997 Teacher Mean Annual Salary	1997 Teacher Mean Annual Salary in 2013 Dollars	1997 Assistant Teacher Mean Annual Salary	1997 Assistant Teacher Mean Annual Salary in 2013 Dollars
1997[2]	$17,436	$25,307	$11,508	$16,703
2007	$26,578	$29,861	$16,673	$18,733
2013	$29,650	$29,650	$18,541	$18,541

SOURCE: Office of Head Start. (1997, 2007, 2013). *Head Start Program Information Report (PIR).* U.S. Department of Health and Human Services, Administration for Children and Families.

[1]Dollars were calculated to reflect their real dollar value in 2013. http://www.bls.gov/data/inflation_calculator.htm.

[2]Calculations of 1997 Program Information Report (PIR) data from Office of Head Start, sent via email September 10, 2014.

Discussion

In 1990, the Head Start Expansion and Quality Improvement Act highlighted the need to improve the qualifications and compensation of teachers working in Head Start, and the 1994 reauthorization of this Act led to the allocation of approximately $470 million in salary increases for approximately 100,000 Head Start personnel.[73] This mandate to improve the qualifications of Head Start teachers was made even more explicit in 2007, when the re-authorizing legisla-

TABLE 3.10
Head Start Teacher[1] Turnover Rates as Reported in the PIR, by Comparison Years

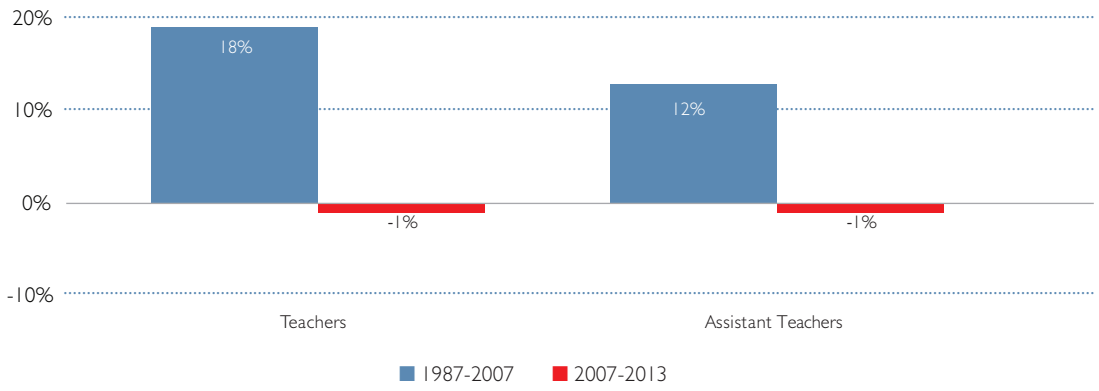
Year	Total Teacher Turnover	Percentage Due to Compensation Programs	Percentage of Programs with No Turnover[2]
2002	14%	31%	--
2007	15%	31%	26%
2013	15%	27%	25%

SOURCE: Office of Head Start. (2002, 2007, 2013). *Head Start Program Information Report (PIR)*. U.S. Department of Health and Human Services, Administration for Children and Families.

[1]Includes classroom teachers only; not available for assistant teachers.

[2]2002 data not available.

FIGURE 3.10: Head Start Annual Teacher and Assistant Teacher Percentage Change in Annual Salary as Reported in the PIR, 1997-2007, 2007-2013



SOURCE: Office of Head Start. (1997, 2007, 2013). *Head Start Program Information Report (PIR)*. U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved fromhttp://eclkc.ohs.acf.hhs.gov/hslc/data/pir.

tion required that at least 50 percent of Head Start teachers have a bachelor's or advanced degree in early childhood education or a related field by September 30, 2013. This ambitious goal has been achieved. Indeed, the share of Head Start teachers with degrees (primarily bachelor's degrees) and the share of assistant teachers with credentials and degrees (primarily associate degrees) have increased steadily since 1997.

These sizeable increases in the educational levels of Head Start teachers have not, however, been rewarded with significant salary increases. Indeed, PIR data indicate that Head Start teacher salaries have not even kept pace with inflation since 2007. And teacher turnover rates, while relatively low, have also not decreased further over time.

These trends have occurred in the context of steady, but modest, increases in federal funding for Head Start and relatively constant enrollments and total teaching staff. The combined impact has been to create an environment in which there is little room for rewarding increased education with increased pay. The affected teaching staff are highly diverse: one-quarter identify as Hispanic/Latino, and one-half identify with a non-White racial category. Their economic well-being and stability affect the early education of a population of preschoolers more than 90 percent of whom live in families at or below the poverty level, 62 percent of whom have at least one working parent, 12 percent of whom have a diagnosed disability, and 28 percent of whom are from homes where English is not the primary spoken language.[74]

The Department of Defense Child Care Program, 1989-2014[75]

In 1989, the U.S. Congress passed the Military Child Care Act, which became the driving force for assuring military families that they would receive high-quality child care regardless of the service branch with which they were associated or the specific installation where they lived.[76] The large investments and dramatic changes that flowed from this Act have contributed to widespread recognition of the Department of Defense (DoD) child care program, with its more than 22,000 early childhood teaching staff caring for 200,000 children, as a model of an accessible, affordable, high-quality early care and education system.[77] The changes included establishing comprehensive cross-system quality standards and acreditation requirements with aggressive enforcement, expanding subsidies for families based on a sliding fee schedule, and substantially improving and linking training and pay for teachers.

Virtually all military child development centers are now accredited by the National Association for the Education of Young Children; subsidies for families cover about two-thirds of the cost of full-time care and are based on a family income-based sliding fee schedule that does not charge higher fees for infant care; and teachers' pay is based on the General Schedule wage scale for all government workers, which takes into account experience, seniority and training/education.[78] This means that DoD early childhood teachers' salaries are set at a rate of pay equivalent to those of other DoD employees with similar training, seniority, and experience.

As such, the DoD has effectively eliminated two pervasive features of much of early care and education in the U.S. The first is unintended incentives for well-trained, educated, and more senior teachers to leave their jobs for more equitable pay in other positions and fields. The second is a funding structure, based heavily on parent fees, in which any increases to early childhood teachers' pay would likely require fee increases. The military wage scale ensures that DoD early childhood workers are paid equitably based on their qualifications, and the parent subsidy structure severs the zero-sum link between parent fees and teacher salaries. This section of the report examines the impact of the Military Child Care Act, and subsequent DoD efforts to sustain its high-quality child care program, on teacher wages and turnover from pre-1989 to the current day.

Trends in Teaching Staff: Wages, Turnover, and Education

The impact on wages has been substantial. The base pay of new hires among frontline early childhood teaching staff ("program associates" in DoD terminology) in military Child Development Centers has increased by 76 percent, from an estimated $5.50 per hour [79] to the current $9.69 per hour.[80] This $9.69 hourly entry-level pay is rapidly increased once new hires successfully complete a mandatory 40-hour orientation, followed by 15 training modules, all of which are accepted by the Child Development Associate Council. Upon certification of competency following this training, salaries for new program associates are increased to a minimum of $10.57 per hour, or close to a doubling of what they would have been paid prior to 1990. In 2014, program associates with bachelor's degrees have the potential to be paid between $27,705 and $36,021 (GS-5 status) annually.[81]

Turnover rates within Department of Defense centers have plummeted since implementation of the Military Child Care Act.[82] Prior to 1990, teaching staff turnover rates ranged from 65 percent to 300 percent. Average turnover is currently at 27 percent, some of which is attributable to military spouses who work in the Child Development Centers and are routinely moved to new installations.

With regard to education and training, prior to 1990 there were virtually no requirements of early childhood teachers within the DoD child care program. Today, newly hired program assistants may enter their jobs as paraprofessionals with no formal education beyond high school, but, as noted above, they undergo extensive training as a condition for continued employment. Moreover, these assistants work under the supervision of a center director and alongside a training and curriculum specialist (similar to a coach) in every Child Development Center, each of whom is required to have a bachelor's degree in ECE or a related field, or a combination of education and experience that provides knowledge comparable to what is normally acquired through the successful completion of a four-year course of study in a child-related field.

Finally, it is important to note that while the type of benefits provided to early childhood teachers within the U.S. military did not change as a result of the Military Child Care Act, they are generous (including health and dental insurance, life insurance, paid sick and annual leave, and a pension plan). As a result of the Act, the numbers of staff receiving benefits have increased. Currently, 75 percent of total labor hours for direct program staff are paid to staff who are in benefit status.

Discussion

The U.S. Department of Defense has made a deliberate commitment to ensuring that children in military families receive high-quality early care and education that is affordable and reliable. This commitment derives from a deeply held value that assigns early care and education a prominent role in guaranteeing military preparedness and providing family support.[83] The U.S. military also appreciates that the children of today's service members often become the service members of tomorrow, and thus invests in their development and well-being. These commitments and the policies they have generated have produced dramatic improvements in both the compensation and stability of the military early education workforce.

Concluding Thoughts

The evidence-based findings in this chapter, while drawn from numerous data sources, portray the circumstances of today's early education teaching workforce in ways that are not substantially different from their circumstances 25 years ago. To the extent that a composite portrait can be assembled, it reveals that:

- Wages for lead teachers and teachers have increased by 19 percent over the past 22 years (Profile Survey and NSECE comparison) and preschool teachers have experienced almost a 15 percent increase in wages since 1997 (BLS). However, early childhood teacher wages remain far below those paid to workers with comparable education in other industries. We know far less about wage trends affecting assistant teachers and aides.
- In stark contrast, wages for childcare workers, as reported by the BLS, have barely kept pace with inflation since 1997. They still hover just above the poverty line and fall at the same level as wages for those who take care of our pets and dry cleaning. Our focused look at Head Start teacher and assistant teacher wages, using PIR data, revealed that increases during the 1990s have now stagnated, such that their salaries have actually not kept pace with the cost of living since 1997.
- Teachers of the nation's youngest children, including those who have bachelor's degrees, earn substantially less than those who teach older children. A 20-percent gap in wages exists even between preschool teachers with degrees in school-sponsored settings and their colleagues who teach kindergarten (NSECE and BLS data).

- Where early childhood teachers work also continues to have a powerful impact on their earnings. As was the case in 1990, those who work in non-profit centers continue to earn more than those who work in the for-profit sector. This disparity has endured despite a notable increase in wages paid by for-profit chains. Growth in wages between 1990 and 2012 ranged from 3.6 percent (public school-sponsored centers) to over 29 percent (independent, non-profit, or government-run centers) in constant 2012 dollars.
- Profile survey and NSECE 22-year comparison indicates that the share of lead teachers and teachers with bachelor's or higher degrees has actually declined since 1990. This average trend belies vast disparities in trends regarding teacher education by center sponsorship. Teachers in the non-profit sector continue to be more highly educated than those in the for-profit sector. Within the non-profit sector, however, while the share of teachers with both associate and bachelor's degrees has increased dramatically in Head Start, the share of degreed teachers in public school-sponsored centers, while still very high, has dropped.
- As in 1990, a sizeable proportion of centers experienced no teacher turnover over the course of a year, and, accordingly, those that did experience turnover had much higher turnover than overall average rates would suggest. Nevertheless, there is some evidence that turnover rates have dropped since 1990, returning to levels that were reported in the mid-1970s. Turnover rates have remained stubbornly high among chains and independent for-profit centers, whether calculated as an average across all centers or among centers that experienced any turnover. However, public school-sponsored centers that experienced turnover are now experiencing similar rates as independent, for-profit centers.
- The commitment the Department of Defense has made to military families to offer affordable, high-quality, reliable early care and education has produced dramatic improvements in the training, compensation, and stability of its center-based early childhood teachers. While entry level wages remain relatively low, they increase systematically with training and experience.

The landscape of early care and education that exists today, having been shaped by these patterns of change and continuity over time, now affects many more teachers and children, in many more centers, than existed at the time of the NCCSS. The children in these programs are more diverse than ever, speak more languages than ever, and more frequently have special needs. We also know that this portrayal of the early childhood workforce has implications for teachers' well-being, as well as profound implications for the future prospects of the children in their care. It is to teachers' well-being that we next turn our attention.

CHAPTER 4

Economic Insecurity Among Early Childhood Teachers

(co-authored by Laura Sakai, Center for the Study of Child Care Employment, University of California, Berkeley)

"The most important predictor of the quality of care children receive, among the adult work environment variables, is staff wages."

– National Child Care Staffing Study, 1989

Since 1989, several investigations have identified the negative consequences of low teacher pay for early care and education programs' capacity to attract educated and skilled teachers, stem turnover, and make program improvements that are necessary for best supporting children's learning and development.[84] Yet the toll that poor compensation takes on the well-being of early childhood teachers themselves has received far less attention.[85] Many have children of their own, many are employed full-time—and many struggle economically, often to feed and house their own families.

The handful of studies examining the well-being of early childhood teachers has revealed relatively high levels of depression and anxiety, similar, in some studies, to those found among women living in poverty.[86] Depression among early childhood teachers has been associated with less sensitive interactions with children.[87] Economic insecurity has not, however, been examined previously among this predominantly female early childhood teaching workforce.

From late 2012 to early 2013, the Center for the Study of Child Care Employment examined economic insecurity among early childhood teaching staff in one state as part of a larger effort to examine workplace supports and adult well-being among early childhood teaching staff. The purpose was to provide feedback for enhancing the technical assistance provided in conjunction with the state's quality rating and improvement system, and to further the development of a new measure examining the adult work environment in early care and education.[88] Below, we report on the experience of economic worry among center-based teachers and assistant teachers, and whether economic insecurity was related to teaching staff characteristics and/or to the centers in which they worked.

Project Design

The sample was drawn from one state's for-profit, non-profit, and public (Head Start and public pre-K) early care and education programs, using an intentional, stratified sampling strategy. Specifically, centers were randomly drawn from the population of Star 3, Star 4, and Star 5 programs recently assessed in conjunction with the state's quality rating system.[89] Only centers that had recently been observed by assessors trained on the Environment Rating Scales (ERS) were included in the population of programs (n= 112) from which the current sample was drawn.[90] Nearly three-quarters of the public programs (71 percent) had Star 5 ratings, compared to 40 percent of non-profit and 24 percent of for-profit programs. Equal numbers of programs were drawn from each star group, resulting in a sample of 72 programs composed of 24 programs at each star level. All teachers and assistant teachers working in these programs were invited to participate. Of the 802 teachers and assistant teachers working in these programs, 616, or 77 percent, participated.

The measure of economic insecurity comprised a subscale of a longer questionnaire examining staff perceptions about workplace policies that affect their teaching practice.[91] Teaching staff were asked to agree or disagree with a series of statements about economic insecurity on a scale of 1 to 6, with 1 indicating strong levels of disagreement and 6 indicating strong levels of agreement with these "worry statements."

Of the 13-item scale, six items focused on economic insecurity; "I worry about…"

1. having enough money to pay my family's monthly bills,
2. having enough food for my family,
3. paying for routine health care costs for myself and family,
4. paying for transportation to and from work,
5. paying for housing; and
6. having enough savings for retirement.

The remaining seven items focused on program-specific employment policies that can create worry; "I worry about…"

1. having work hours reduced,
2. having job benefits reduced,
3. being laid off,
4. being sent home without pay if child attendance is low or if the program has an unexpected closure,
5. not getting a raise,
6. losing pay due to personal or family illness, and
7. being unable to take time off for family issues.

Two scores were derived from these items. First, a mean economic insecurity score, ranging from 1.00 to 6.00, was created by averaging responses across each of the 13 worry items.

These scores were used to determine differences in overall economic insecurity among teaching staff, based on individual characteristics and the programs in which they worked.[92] Second, a cut-off score set at 4.00 on the scale captured teaching staff who were "somewhat" to "strongly" worried about a particular item. When mean aggregate scores were significantly different across comparison groups of teaching staff, we present the percentages of staff within each group (e.g., those with college degrees, and those without) who were at or above the 4.00 cut-off and thus expressed worry about specific items on the scale.

As part of the broader questionnaire, participants were asked to provide information about their educational backgrounds, wages, and use of public income supports, such as subsidized child care or food stamps. Teaching staff were also asked to provide information about their household income, marital status, whether they had children living with them, and if so, the age of each child. Center directors provided information on program auspice and the number and ages of children served. Finally, we obtained the Environment Rating Scale (ERS)[93] quality scores, averaged across multiple classrooms in each program, that were collected as part of the state quality rating system. The mean ERS score for programs in the sample was 5.26 (SD=0.63: range=3.4 to 6.25), indicating a relatively high-quality sample of centers.

Participant Characteristics

Almost all (97 percent) of the teaching staff who completed questionnaires were women; their mean age was 38 years old. Over one-half (54 percent) identified as White/Caucasian, and 40 percent identified as Black/African American. Slightly less than one-half (48 percent) had earned an associate or higher degree (see **Table 4.1**). The teaching staff had worked, on

TABLE 4.1
Educational Attainment of Teaching Staff, by Job Title*[1]

Educational Attainment	Teachers	Assistant Teachers	All Teaching Staff
High school or less	7%	13%	8%
Some college	41%	52%	44%
Associate degree	21%	18%	20%
Bachelor's degree or higher	31%	17%	28%
Total	100%	100%	100%
N	461	138	599

*Job title: $\chi^2(3) = 15.283$, $p = .002$.

[1]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

average, 12 years in the early care and education field, five years at their current workplaces, and four years in their current positions.

More than one-half (53 percent) of the teaching staff were single, including those who were divorced or widowed. Nearly one-half of the teaching staff who were parents were single. Almost two-thirds (61 percent) reported having dependent children living at home. Of these, about one-third (35 percent) reported living with at least one child under five years of age, two-thirds (66 percent) with at least one child between five and 18 years of age, and about one-third (29 percent) with at least one adult child 18 years or older.

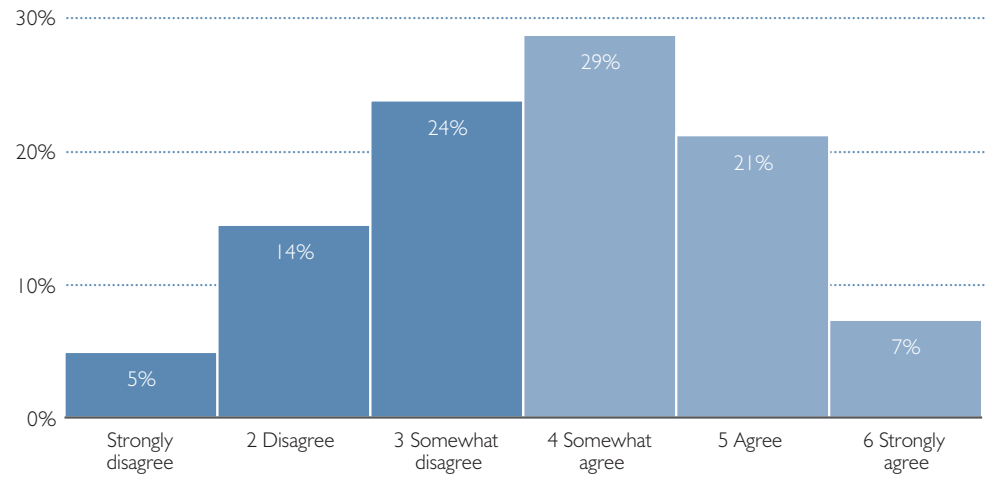
Teachers earned a mean hourly wage of $11.58; assistant teachers earned a mean hourly wage of $9.92. Two-thirds of the teaching staff (66 percent) reported having health insurance, from any source. More than one-half (57 percent) of the teaching staff reported living in households with incomes of less than $30,000 per year, and nearly three-quarters (72 percent) reported household incomes of less than $40,000 per year. Most teaching staff (81 percent) reported working 35 or more hours per week in their ECE position.

Findings

Overall Economic Insecurity

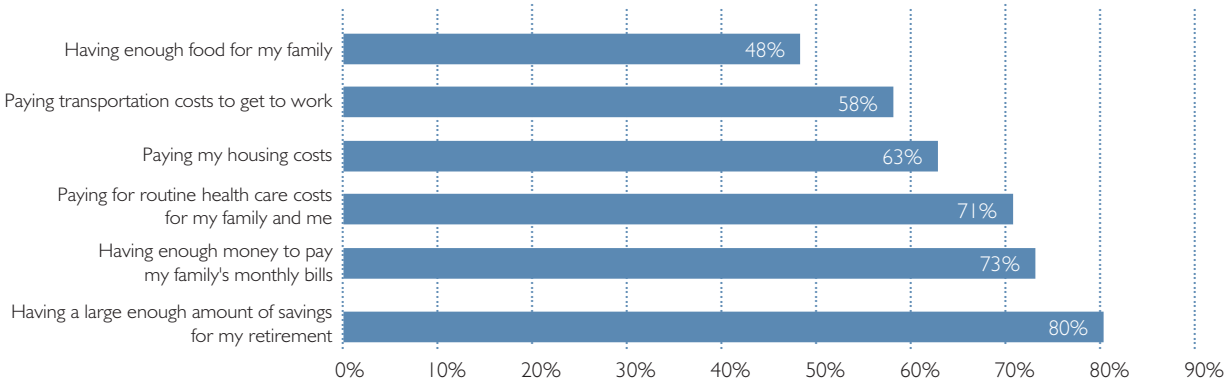
- The aggregate mean economic insecurity score across the 13 items for teaching staff was 3.7 (SD=1.25, Range=1-6). As shown in **Figure 4.1**, 57 percent of teaching staff had mean scores of four or higher, indicating that they were somewhat to strongly worried. Fewer than one in five teaching staff had average scores of 2.0 or lower, indicating disagreement with the 'economic worry' statements.
- At least 50 percent of the teaching staff indicated that they worried about their family's economic well-being, on five out of six economic security items (see **Figure 4.2**).
  - Four out of five teaching staff expressed worry about having a large enough amount of savings for retirement.
  - Nearly three-quarters of teaching staff expressed worry about having enough money to pay monthly bills.
  - Seven in 10 teaching staff worried about paying for routine health care costs for themselves or their family members.
  - More than one-half of teaching staff expressed worry about paying their housing costs and transportation costs to get to work.
  - Nearly one-half of teaching staff expressed worry about having enough food for their families.

FIGURE 4.1: Distribution of Economic Insecurity Mean Scores Across All Teaching Staff[1]



[1]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91

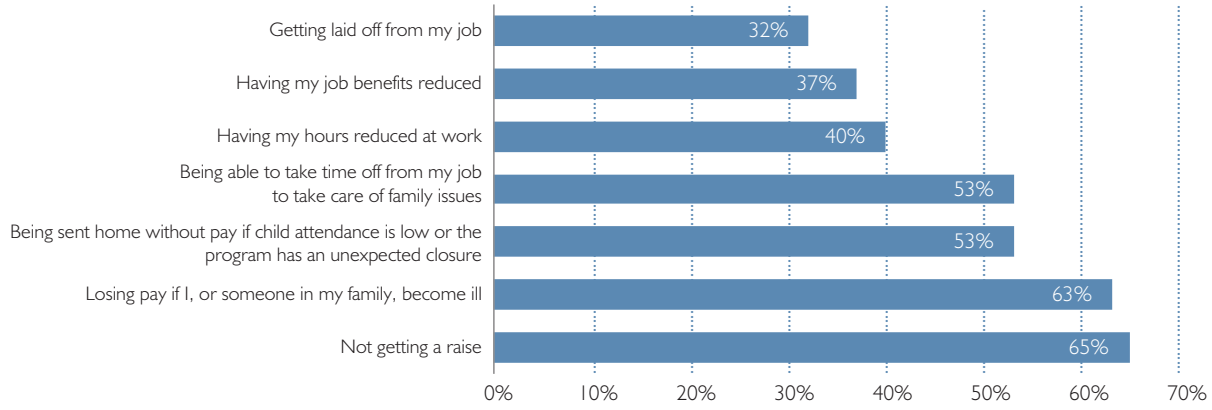
FIGURE 4.2: Percentage of Teaching Staff Worried[1] About Their Economic Security[2] (N=616)



[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a related statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

- At least 50 percent of the teaching staff indicated that they worried about program-specific employment policies that affected their earnings, on four out of seven policies (see **Figure 4.3**).
  - Nearly two-thirds of teaching staff expressed worry about not getting a raise, or losing pay if they or someone in their family became ill.
  - Slightly more than one-half of teaching staff expressed worry about being sent home without pay if child attendance was low or if the program had an unexpected closure.
  - More than one-third of teaching staff expressed worry about having their hours reduced at work or their job benefits reduced.
  - About one-third of teaching staff expressed worry about getting laid off.

FIGURE 4.3: Percentage of Teaching Staff Worried[1] About Employment Policies[2] (N=616)



[1] Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a related statement, as represented by a 4 or higher on the Likert Scale.
[2] The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

Economic Insecurity by Teacher Characteristics: Wages, Reliance on Public Support, Education, and Parental Status

Compensation

We examined the wage level at which we found significantly lower mean levels of overall worry among teaching staff. We divided the sample into quartiles, with those earning $8.50 or less per hour comprising the lowest quartile, those earning between $8.51 and $10.09 per hour and $10.10 to $12.49 per hour the second and third quartiles, and those earning $12.50 or more per hour the top quartile.

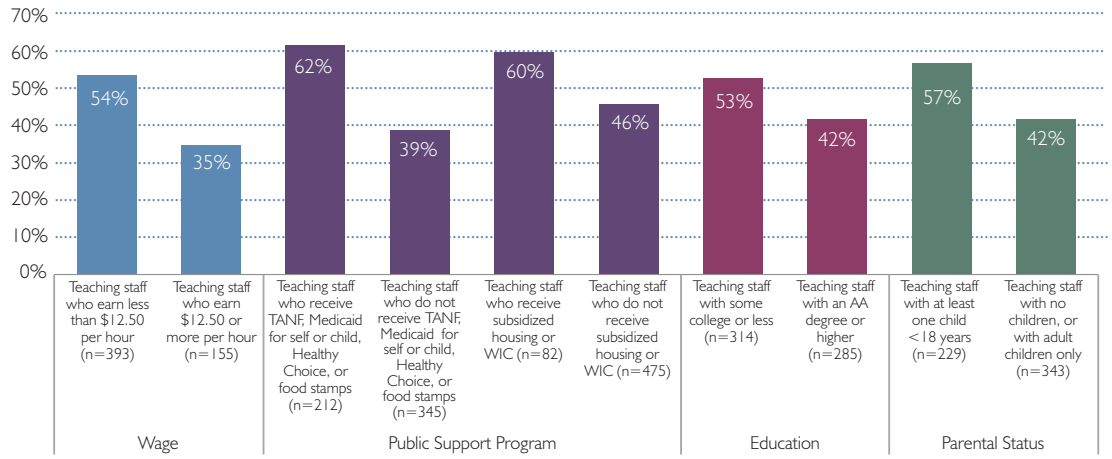
- Significantly lower mean aggregate scores were found among the teaching staff earning more than $12.50 per hour, compared to the teaching staff who earned less than $12.50 per hour (or less than $25,635 for full-time employment).[94]
- A significantly higher percentage of teaching staff who earned less than $12.50 per hour, than of those earning more than $12.50 per hour, expressed worry about not being able to pay their monthly bills, housing costs, or costs of transportation to work. A larger share of those earning less than $12.50 per hour also expressed worry about having enough food for their families (see **Figure 4.4** and Appendix **Table A.1**)
- A significantly larger percentage of teaching staff earning less than $12.50 per hour, than of those earning more than $12.50 per hour, expressed worry about having their hours reduced, not receiving a raise, being sent home without pay due to an unexpected closure or low enrollment, or missing work due to personal or family illness (see **Figures 4.5** and **4.6**, and Appendix **Table A4.1**).

Public Support

Reflecting their low income levels, 35 percent of teaching staff reported accessing some form of public support in the last three years.[95]

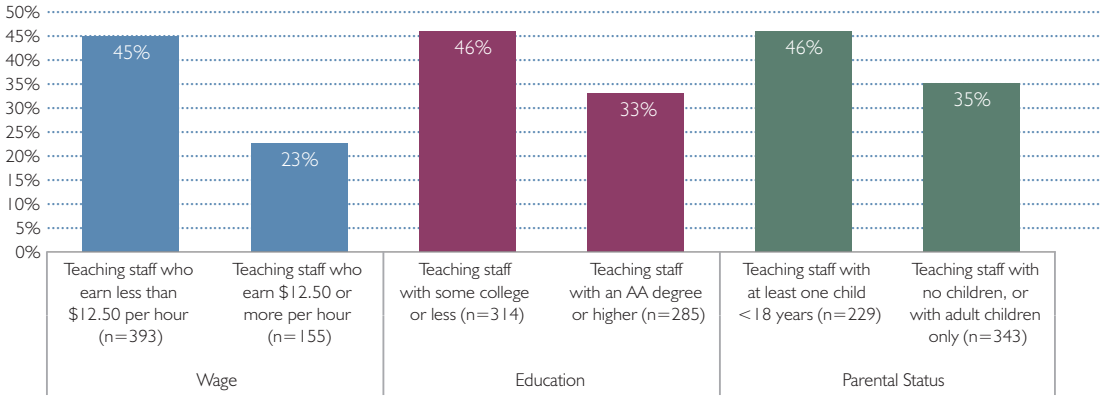
- Health and food services were the most commonly accessed type of public support. Sixty-three percent of teaching staff with at least one child 18 or younger reported accessing one or more public support programs in the last three years, compared with only 26 percent of teaching staff with no children or with children older than 18.[96] As shown in **Figures 4.4** and **4.6**, and Appendix **Table A4.2**, those who reported having accessed some form of public support in the last three years expressed higher rates of worry than those who did not.

FIGURE 4.4: Percentage of Teaching Staff Worried[1] about having Enough Food for Their Families, by Wage, Participation in Public Support Programs, Educational Level, and Parental Status[2]



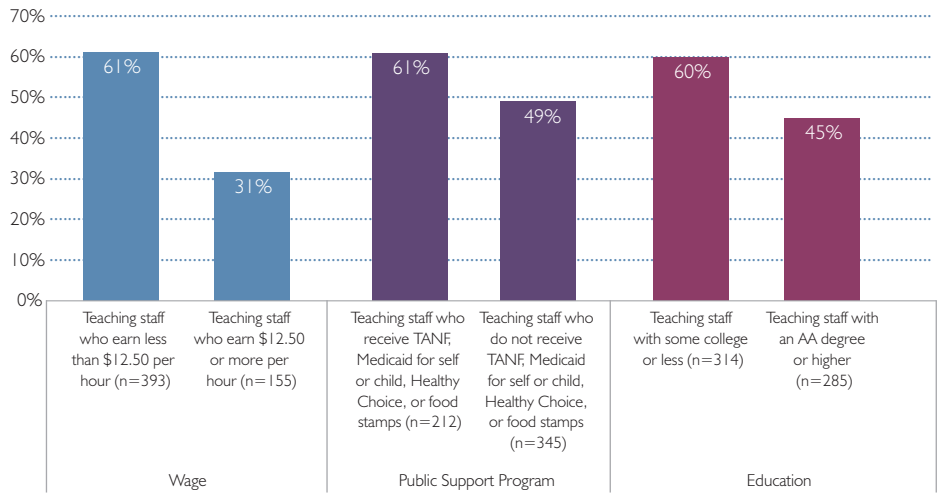
[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

FIGURE 4.5: Percentage of Teaching Staff Worried[1] about having Their Hours Reduced, by Wage, Educational Level, and Parental Status[2]



[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

FIGURE 4.6: Percentage of Teaching Staff Worried[1] about being Sent Home Without Pay because of Low Child Attendance or Unexpected Closure, by Wage, Participation in Public Support Programs and Educational Level[2]



[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

Level of Education

- In early care and education programs, a premium for more education in the form of higher earnings is evident, as shown in **Table 4.2.** Thus, as we anticipated, we found significantly lower aggregate mean economic insecurity scores among teaching staff who had earned an associate or higher degree, compared to those with less education.[97] The premium for higher education in early care and education is less than in most occupations,[98] however, as shown in **Figures 4.4, 4.5,** and **4.6**, and Appendix **Table A4.3**, many degreed teachers reported economic concerns, such as not having enough food for their families, or being sent home without pay due to an unexpected closure or low attendance.

TABLE 4.2
Wages of Teaching Staff, by Educational Level[1]

Educational Attainment	Mean Wages	N
High school or less	$9.25	46
Some college	$9.75	238
Associate degree	$11.87	103
Bachelor's degree or higher	$13.78	149
Total	$11.24	536

[1]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

Parental Status

Three out of five teaching staff responding to the questionnaire were parents; of these, almost one-half were single, and about one-third lived with children under five years of age.

- Among teaching staff with dependent children 18 years old or younger, we found significantly higher mean levels of overall worry about their family economic situation and job-related financial policies than among teaching staff with no children or with older children.[99]
- A significantly higher percentage of teaching staff with children 18 years old or younger expressed worry about meeting monthly expenses, having enough food for their family, paying for housing and work-related transportation, and saving enough for retirement, than did teaching staff with no children (see **Figure 4.4** and Appendix **Table A4.4**).
- A significantly higher percentage of teaching staff with children 18 years old or younger expressed worry about having their hours and benefits reduced, not getting a raise, or losing pay due to their own or a family member's illness, than did teaching staff with no children or with older children (see **Figure 4.5** and Appendix **Table A4.4**).

Economic Insecurity by Program Characteristics: Auspice and Quality Ratings

We examined whether mean aggregate scores of teaching staff worry varied significantly by the characteristics of the programs in which they were employed, including the number of children served, auspices, star rating level, and observed quality using the Environment Rating Scales (ERS).[100] There were no significant differences in mean aggregate scores by number of children served; significant differences by auspice, star level, and observed quality are reported below.

Program Auspice

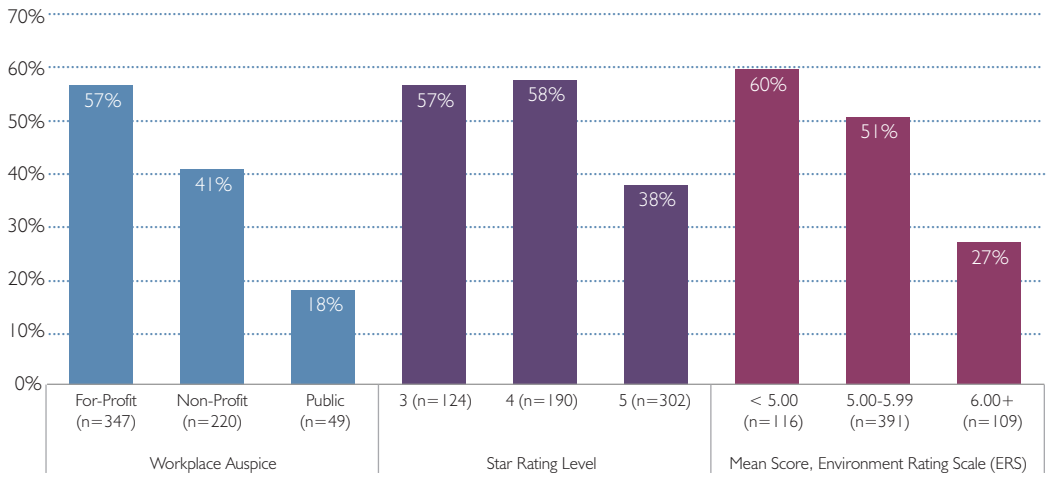
- We found significantly higher mean aggregate scores, related to expressions of worry, among teaching staff employed by for-profit programs than among those employed in public or non-profit programs.[101] We also found significantly higher mean aggregate scores among teaching staff employed by non-profit programs than those employed in public programs (see **Figure 4.7**, **4.8**, and **4.9**, and Appendix **Table A4.5**).[102]

Quality Ratings

Staff education is an important component of the quality rating that programs earn in the state we examined. Accordingly, in our sample, levels of staff education were lowest in Star 3 programs, and highest in Star 5 programs.[103] Staff wages were also significantly higher in Star 5 than in Star 3 and 4 programs.[104] Programs' scores on the ERS are another important component used to determine ratings; mean ERS ratings varied significantly by star level.[105]

- Star Level: We found significantly lower mean aggregate scores, related to expressions of worry, among teaching staff working in programs with the highest star rating (Star 5) than among those working in centers with Star 3 and Star 4 ratings.[106] Teaching staff working in Star 5 programs, however, were not immune from concerns about their family's economic security or about workplace policies (see **Figure 4.7**, **4.8**, and **4.9**, and Appendix **Table A4.6**).
- Environment Rating Scale scores: We found significantly lower mean aggregate worry scores among teaching staff in programs with ERS observed quality scores of 6.00 or greater than among those working in centers with scores below 6.00 (see **Figures 4.7**, **4.8**, and **4.9**, Appendix Table **A4.7**).[107]

FIGURE 4.7: Percentage of Teaching Staff Worried[1] about having Enough Food for Their Families, by Workplace Auspice, Star Rating Level, and Mean Score on Environment Rating Scale (ERS)[2]

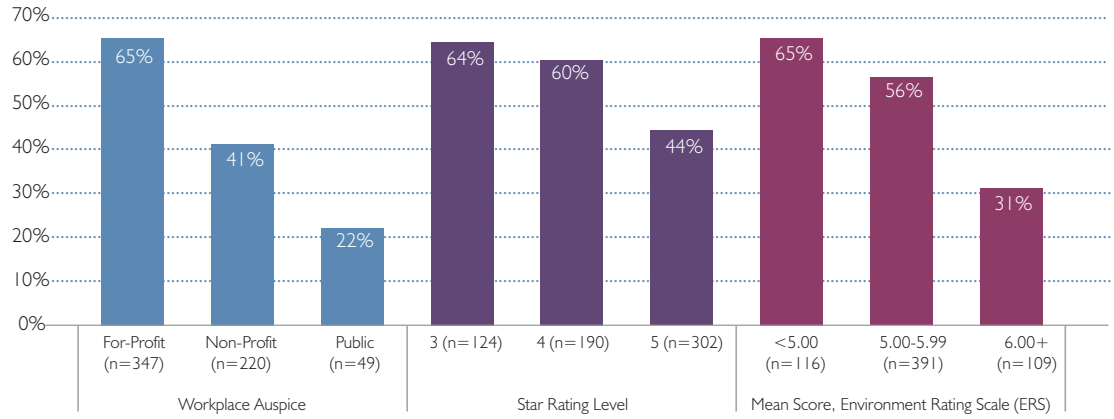


[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

FIGURE 4.8: Percentage of Teaching Staff Worried[1] about having Their Hours Reduced, by Workplace Auspice, Star Rating Level, and Mean Score on Environment Rating Scale (ERS)[2]

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

FIGURE 4.9: Percentage of Teaching Staff Worried[1] about Being Sent Home Without Pay Because of Low Child Attendance or Unexpected Closure, by Workplace Auspice, Star Rating Level, and Mean Score on Environment Rating Scale (ERS)[2]



[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.
[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #91.

Concluding Thoughts

In the United States, economic distress is not restricted to those living at or below the poverty level, but affects many adults, including some who are employed full time.[108] In 2011, the percentage of all adults reporting economic insecurity (39 percent) was more than twice as high as those living at or below the federal poverty level (14 percent).[109] Higher levels of economic insecurity are typically found among single women, particularly those who are mothers, those with low levels of education, and those working in jobs that fail to generate sufficient income to cover such essentials as housing, food, and health care.[110]

The findings about economic insecurity reported for our single state sample of early childhood teachers mirror this national pattern. Those who were parents, with lower levels of education, and lower wages expressed higher levels of worry, but expressions of economic worry were not restricted to early childhood teachers with only these characteristics. Although we cannot generalize to all early childhood teachers from this one exploration, the findings signal the need for further research to deepen our understanding about such issues as the levels of food and housing insecurity experienced by members of the early childhood workforce.[111] We also need a better understanding of how workplace policies in the ECE field exacerbate or relieve economic insecurity. Considered in relation to the information on wages and utilization of public support programs presented elsewhere in this report, it is unlikely that these findings about economic insecurity are unique to this sample, particularly because the teachers in our sample were employed, on average, in high-quality programs.

Economic insecurity fuels stress and depression among adults, and, as we know from studies of depression among mothers, affects their interactions with children.[112] This study reminds us that many early childhood teachers are also parents whose children face the very risks associated with being poor that so many of our early care and education policies seek to ameliorate. And the consequences of their economic insecurity extend beyond their own families. We can only speculate here about the distress that many teachers experience on a day-to-day basis. But it is troubling to imagine the stress that is induced from worrying about feeding one's own family or being sent home without pay, while simultaneously being responsible for a group of children whose parents have entrusted them to your care.

Further, we must understand the consequences of this extent of economic insecurity against the backdrop of the expectations we now hold for teachers of young children. While the jobs remain low-paying, the work of teaching young children is highly skilled and complex. Based on what we have learned about the importance of the first years of life, it is imperative that early childhood teachers know about typical and atypical child development, how children develop mathematical understanding and literacy, and how to promote learning across multiple domains. Additionally, they must be skilled in helping children develop important lifelong personal dispositions, such as task persistence, negotiating conflict, and regulating their impulses. These skills must be applied in the context of working with children from a variety of cultures and economic backgrounds, children of varied immigration status, and increasingly, children who are dual language learners and who have special needs. At the same time, many teachers are also attending school while working full-time to meet these rising expectations, undoubtedly with the hope of improving their economic status.[113]

We were not surprised that teachers in our sample who expressed lower levels of economic worry were employed, on average, in programs rated higher in quality. These programs also employed better-educated teachers who were paid higher wages. Thus, reducing economic insecurity among teachers underscores the need for both policy and financing that can align teacher pay, education, and expectations across all programs. Economic insecurity can also be relieved to some extent by changing common workplace policies and practices, such as sending teachers home without pay because of unexpected closures or low enrollment. Such policies may be viewed as cost saving, or even a necessity if programs relying on vouchers are not paid when children are absent. But these considerations may be at the expense of what teachers need in order to help children succeed. Low enrollment days, if paid, could reduce teacher worry and provide them with hard-to-come-by professional sharing and planning time.[114] Likewise, guaranteeing teachers a set number of work hours and providing paid sick days when they or their family members are ill could allay teacher stress.

Among the most worried teachers in our sample were those using public support services for themselves and their children. In the next chapter, we consider the costs associated with the utilization of such public support among the early childhood workforce, as well as other economic consequences of the current status of early childhood jobs.

CHAPTER 5

The Public Cost of Inadequate Compensation

"Our nation has implicitly adopted a child care policy which relies upon unseen subsidies provided by child care teachers through their low wages. But as we are painfully realizing, this policy forms a shaky foundation upon which to build a structure to house and nurture our children while their parents earn a living."

– National Child Care Staffing Study, 1989

Today a diversity of voices, unimagined 25 years ago, is championing investments in high-quality learning experiences for young children: law enforcement and government officials, business and political leaders, health practitioners, and researchers across multiple disciplines. This expanding circle of early care and education (ECE) stakeholders now understands what healthy development for young children requires from the adults in their lives, as well as what happens when children consistently fail to receive the kinds of adult-child interactions that optimize their learning and well-being. Many now recognize that the consequences of early development gone awry carry tremendous costs to individuals and to our nation as a whole.

Economic research in recent years has affixed dollar estimates to the costs of ECE done right, and likely accounts for much of the favorable shift in opinion toward greater investment in ECE programs, most notably in publicly funded prekindergarten (pre-K). Oft-cited estimates of the high returns on each dollar invested in ECE have been based on the study of older and newer high-quality programs with well-educated and well-compensated teachers.[115] Such programs, however, are the exception, not the rule, and they require substantial upfront and sustained investment in ECE, an approach not necessarily present in most policy initiatives, even today. The Obama administration, for example, has made quality improvement in ECE a high priority, with Race to the Top/Early Learning Grants underwriting much of the innovation now underway in selected states. Yet these grants are time-limited investments, pending new allocations by Congress, and are not sufficiently large, especially in more populous states, to ensure broad and deep transformation in ECE program quality.

Despite the welcome, new emphasis in federal and state policy on delivering high-quality services to young children and ensuring improved school readiness, the decades-old struggle over whether to serve more eligible families, or to serve fewer families better, continues to

dominate resource-allocation decisions in many communities, especially in the face of cutbacks resulting from the still-reverberating Great Recession. A slogan made popular by the 1990s Worthy Wage Campaign,[116] and one that sadly continues to resonate, captures this tension: "Parents can't afford to pay, teachers can't afford to stay, help us find a better way."

To stimulate discussion of a "better way," we have examined the hidden public costs of continuing the status quo. Specifically, what are the public costs of continuing an approach to ECE that burdens young parents with high fees and generates jobs for teaching staff that fuel poverty? What is the American public paying for the current way of doing business, and what changes might lead to a better return on our public investment or a more efficient use of resources? To initiate this examination, we report on a first-ever analysis of utilization rates by childcare workers and their immediate family members of income support programs, and the associated public costs.

Utilization Rates and Costs of Public Support Programs and Tax Policies for Childcare Workers and Their Families

(Co-authored by Sylvia Allegretto, Center on Wage and Employment Dynamics, Institute for Research on Labor and Employment, University of California, Berkeley; and Dave Graham-Squire and Ian Perry, Center for Labor Research and Education, Institute for Research on Labor and Employment, University of California, Berkeley.)

Employment in low-wage industries, even for full-time workers, fails to generate sufficient income to meet the living expenses of many American families, leading a significant proportion to seek assistance through public support programs.[117] Recent research, for example, about front-line fast-food industry workers and bank tellers, and their families, documents the high utilization of public support programs to augment earnings in these low-paying occupations, and estimates the attendant public costs.[118] This same methodology applied to childcare workers and their family members reveals similarly high utilization rates of public programs to augment low earnings, and reveals one source of hidden costs linked to the low wages that characterize our nation's early childhood jobs.[119]

This analysis focuses on utilization of four federal public support programs and tax policies by childcare workers and their family members (referred to as "childcare worker families"): the Federal Earned Income Tax Credit (EITC); Medicaid and the Children's Health Insurance Program (CHIP); Supplemental Nutrition Assistance Program (SNAP); and Temporary Assistance for Needy Families (TANF).[120,121] Eligibility for these programs is based on income, which is set at various levels for different family configurations. Family type is determined by marital status, and whether a worker has children.

Our sample was composed of childcare workers, as defined by the U.S. Bureau of the Census and the U.S. Bureau of Labor Statistics, and any members of their immediate families

(i.e., spouses and children). We restricted our sample to childcare workers in the following four industries: schools, child day care services, religious organizations, and private households, to arrive at an estimated population of 906,000 childcare workers.[122] Thirty-one percent of these workers reported that they were self-employed.[123] As a final restriction, we excluded workers only marginally attached to the labor force and constrained our analysis to childcare workers who worked "year-round", defined as working at least 10 hours per week and at least 27 weeks per year. Slightly more than three-quarters, or 683,000 of these 906,000 U.S. childcare workers, met these criteria each year between 2007 and 2011, the most recent five-year period for which data were available.

Thirty-six percent of these childcare workers were single without children, 32 percent were married with one or more children, 17 percent were single parents with one or more children, and 15 percent were married without children. Each of these configurations is considered a family, including single adult families, for the purposes of determining program eligibility. As such, the unit of analysis for the results reported here is a childcare worker family, which includes both single and married childcare workers with and without children.

This report combines data from three sources. First, we gathered aggregate government administrative data about annual enrollment and annual benefits paid for each of the four public support programs named above for all 50 states and Washington, D.C.[124] Second, we used the March Supplement of the U.S. Bureau of Labor Statistics' Current Population Survey (CPS) to obtain information on employment, worker demographics, and use of public benefits. Together these sources allowed us to estimate the total amount of public benefits paid to different groups of workers.[125] To combine the CPS and administrative data, we selected a multi-year period (2007-2011) that minimizes the impact of annual fluctuations in program costs and enrollment. To translate those benefits payments at the state level and to develop estimates for the child care industry, we constructed a model that made it possible to integrate data from a third source, the U.S. Census Bureau's American Community Survey (ACS),[126] which contains a larger sample size than the CPS. The use of the ACS allowed us to estimate costs for all U.S. workers, for our subset of childcare workers and for some states with large populations (see Appendix **Table A5.1** and **Table A5.2**).[127] Annual average percentages represent childcare workers or their family members enrolled in any given benefit as a proportion of all childcare workers. These percentages were calculated using the pooled five survey years from 2007 to 2011. We have adjusted the sample weights so that the enrollment totals of the ACS for each of the programs and each year align with the administrative cost and participation data. For a detailed explanation of methodology, please see *Fast Food, Poverty Wages: The Public Cost of Low-Wage Jobs in the Fast-Food Industry, Appendix A.*

This study offers a conservative estimate of utilization costs of public support programs and tax policies by childcare worker families, for several reasons. First, it does not include an analysis of utilization rates and costs related to other federal income programs, such as the Health and

Nutrition Program for Women, Infants and Children (WIC), housing supports, reduced-price school lunches, or public programs offered by states, such as childcare subsidies and state earned income tax credits.[128] Second, these data reflect utilization rates for Medicaid prior to the implementation of the Affordable Care Act (ACA). Because the ACA increased the income eligibility level for Medicaid, childcare workers' enrollment in health-related program supports is likely to rise. Third, although this analysis does not include preschool teachers, who earn higher wages on average than those identified by the Census as childcare workers, the ranks of preschool teachers nonetheless include many low-wage earners whose families likely utilize at least one public support program. Finally, estimates were based on 2011 dollars; the value of the 2014 dollar reflects a rise of approximately six percent in the cost of living.

It should be noted that this study does not include an analysis of the impact of the 2008 recession on utilization of public support programs by childcare worker families.

Findings

Overall National Annual Participation Rates

Nearly one-half (46 percent) of childcare workers resided in families enrolled in one or more public support programs annually, compared to 25 percent of the U.S. workforce as a whole (see **Table 5.1**. For information about participation rates for select states, see Appendix **Table A5.1**).

- Childcare workers (46 percent) were more likely than bank tellers (31 percent), and somewhat less likely than front-line fast food workers (52 percent), to be in families enrolled in one or more public support programs (see **Figure 5.1**).

TABLE 5.1
Enrollment In and Costs of Public Support Programs for Childcare Workers and Their Family Members, per Year (Annual Averages, 2007-2011)[1]

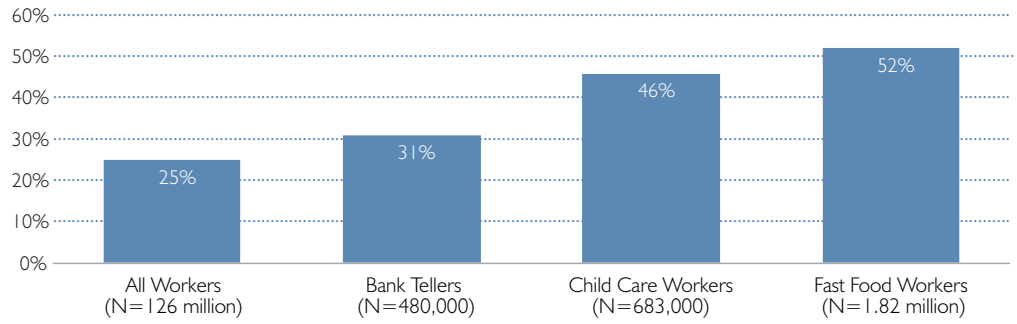
	Number of Workers with Families Enrolled)	Percentage of Workers with Families Enrolled	Average Program Costs per Enrolled Family	Total Cost Across All Enrolled Families (in millions)
Enrollment in one or more selected public support programs	311,000[1]	46%	$7,860	$ 2,410

[1]Of 683,000 estimated year-round child care worker families in the United States with at least one member enrolled in one or more public support programs.

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

Note: All costs are reported in 2011 dollars.

FIGURE 5.1: Participation Rates in Public Support Programs, by Selected Occupations, and for All Workers and Their Family Members (Annual Averages, 2007-2011)



Source: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

National Costs of Childcare Worker Participation in Public Support Programs

The cost of public supports to childcare worker families was approximately $2.4 billion per year (2007-2011). At an average of $1.3 billion per year, spending on Medicaid and CHIP accounted for more than one-half of these costs (55 percent) (see **Table 5.2**. For information about costs for select states, see Appendix **Table A5.2**).

- The average number of childcare worker families with adults enrolled in Medicaid (103,000 per year) was substantially smaller than the number enrolled in other public programs, but due to substantially higher per-family program costs ($7,500 average per year for those utilizing Medicaid), Medicaid accounted for more spending on childcare worker families than any other program.
- The average number of childcare worker families whose children were enrolled in Medicaid/CHIP was 127,000 per year; health coverage for the children of childcare workers accounted for the second highest total cost of all public programs, with average annual costs of approximately $4,440 per family.
- Childcare worker families also received an annual average of $328 million in food stamp benefits and $729 million in federal EITC payments.
  - The number of childcare worker families who received food stamp benefits was 128,000 per year, with an average annual cost of approximately $2,580 per family.

TABLE 5.2
Enrollment Rates and Costs of Public Support Programs for Childcare Worker Families
(Annual Averages, 2007-2011)[1]

Program	Number of Workers with Families Enrolled	Percentage of Workers with Families Enrolled	Average Program Costs per Enrolled Family	Total Cost Across All Families Enrolled (in millions)
Federal Earned Income Tax Credit (EITC)	281,000	41%	$2,620	$729
Medicaid (adults)	103,000	15%	$7,500	$760
Medicaid/CHIP (children)	127,000	19%	$4,440	$555
Food Stamps	128,000	19%	$2,580	$328
TANF	14,000	2%	$3,110	$42

[1]Of 683,000 estimated year-round child care worker families in the United States with at least one member enrolled in one or more public support programs.

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

Note: All costs are reported in 2011 dollars. Rows and columns may not sum due to rounding.

- More than 280,000 childcare worker families (41 percent) participated in the federal EITC each year, more than double the number that enrolled in any other program. The EITC, however, is less expensive than other public support programs, with average annual benefits of approximately $2,600 per family.

Variations in Participation in Public Support Programs, by Childcare Worker Demographic Characteristics

Participation rates of childcare worker families varied by the age, gender, and race of the childcare worker.

- Participation rates of childcare worker families in public support programs were higher if childcare workers were in their peak child-rearing years (25-54) compared to those who were younger or older (see **Table 5.3** and **Figure 5.2**).
- Female childcare workers constituted the vast majority of childcare workers (96 percent), and their families participated at substantially higher rates (46 percent) than those of male childcare workers (33 percent) (see **Table 5.3** and **Figure 5.2**).

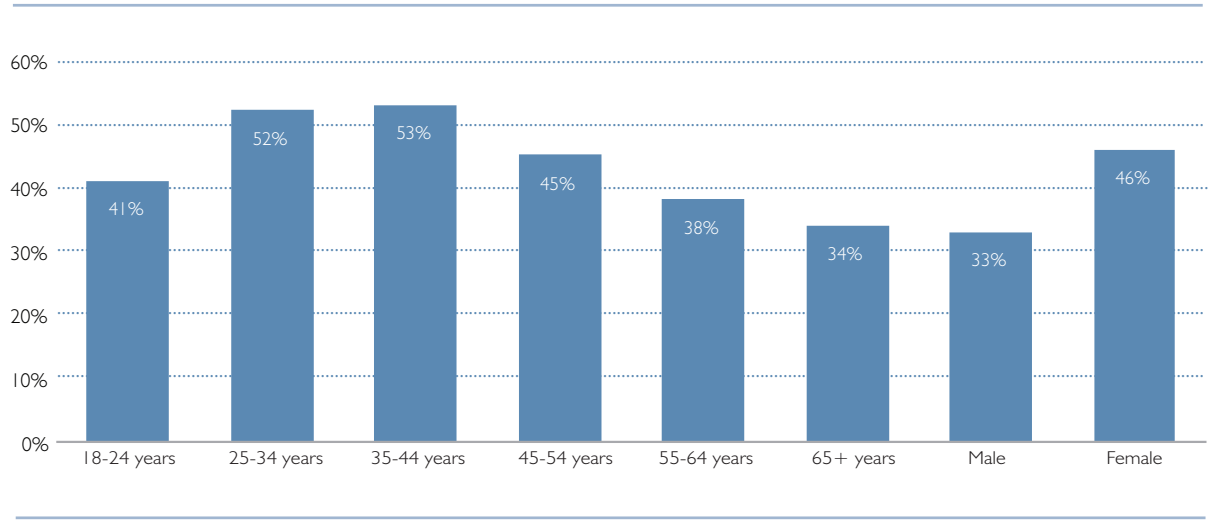
- The participation rates of Black, Latino and multiracial childcare worker families were more than 1.5 times the rate of White, and 1.3 the rate of Asian, childcare worker families, and 1.5 to 2 times the rate of equivalent races/ethnicities among all workers (see **Table 5.4** and **Figure 5.3**).

TABLE 5.3
Percentage of Childcare Worker Families Overall and Percentage Participating in Public Support Programs, by Childcare Worker Age and Gender (Annual Averages, 2007-2011)

Demographic Characteristics of Childcare Worker	Percentage of All Childcare Workers with Defining Characteristic (N=683,000)	Percentage of All Childcare Workers Families Participating in One or More Public Programs, by Defining Characteristic (N=311,000)
Age		
18-24 years	21%	19%
25-34 years	21%	24%
35-44 years	19%	22%
45-54 years	20%	20%
55-64 years	13%	11%
65+ years	4%	3%
Gender		
Male	4%	3%
Female	96%	97%

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

FIGURE 5.2: Participation Rates by Childcare Worker Families in One or More Public Programs, by Worker Age and Gender (Annual Averages, 2007-2011)[1]



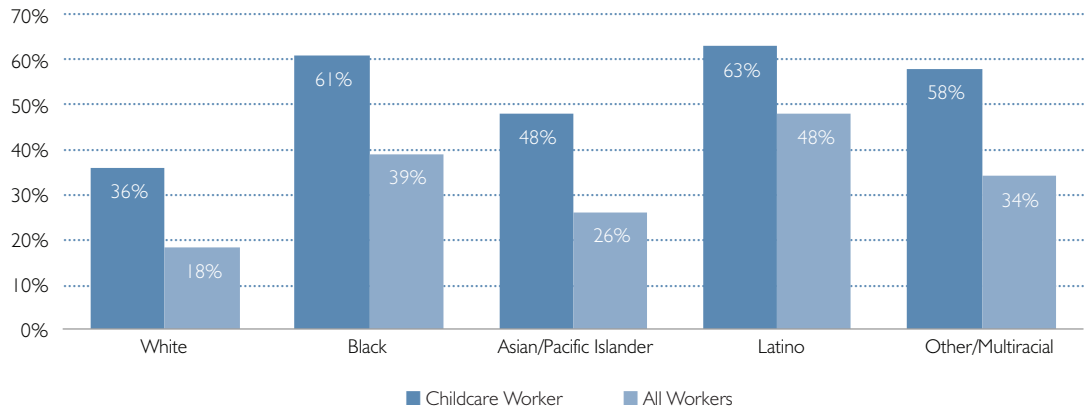
SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.3

TABLE 5.4
Percentage of Childcare Worker Families and All U.S. Worker Families Overall and Percentage Participating in Public Support Programs, by Worker Race/Ethnicity (Annual Averages, 2007-2011)

Race/Ethnicity of Childcare Worker	Percentage of All Childcare Workers with Defining Characteristic (N=683,000)	Percentage of All Childcare Worker Families Participating in One or More Public Programs, by Defining Characteristic (N=311,000)	Percentage of All U.S. Workers with Defining Characteristic (N=126 million)	Percentage of All U.S. Workers Participating in One or More Public Programs, by Defining Characteristic (N=31 million)
White	59%	46%	68%	49%
Black	16%	21%	11%	17%
Asian/Pacific Islander	3%	3%	3%	3%
Latino	11%	15%	9%	18%
Other/Multiracial	12%	15%	9%	13%

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

FIGURE 5.3: Participation Rates in One or More Public Programs, by Race/Ethnicity of Worker: Childcare Worker Families[1] vs. All Worker Families (Annual Averages, 2007-2011)



SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.4.

Variations in Participation in Public Support Programs, by Childcare Worker Family Income and Structure

Participation rates in public support programs were higher among childcare worker families that were poorer (see **Table 5.5** and **Figure 5.4**).

- Slightly more than one-third (38 percent) of childcare workers had family incomes below 200 percent of the federal poverty level (FPL), and they constituted two-thirds of the childcare workers with families participating in at least one public support program.
- Approximately eight out of 10 childcare workers with family incomes below 200 percent of the FPL participated in at least one public support program; four out of 10 childcare worker families with incomes between 200 and 299 percent of the FPL participated in at least one public support program.

Participation rates in public support programs were highest among single parent childcare workers or among workers with at least one child under five years old (see **Figure 5.5**).

- Four out of five childcare worker families whose youngest child was under five years old participated in public support programs.
- Approximately two out of three single parent childcare worker families with all children five through 18 years of age participated in public support programs.

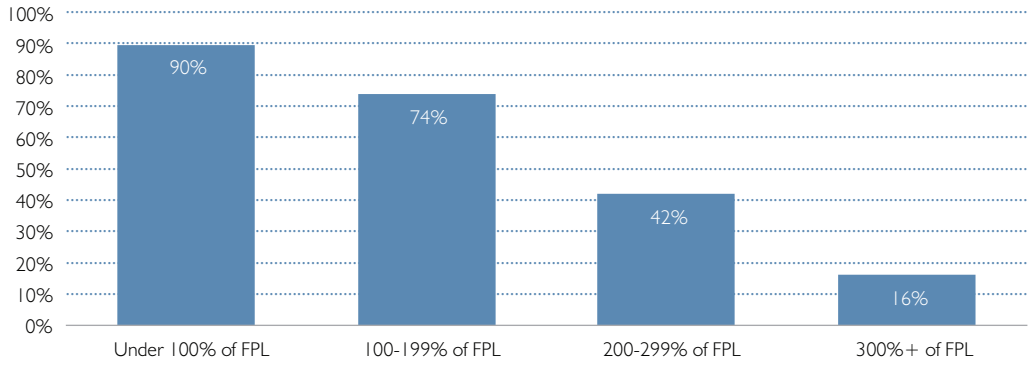
TABLE 5.5

Percentage of Childcare Worker Families Overall and Percentages Participating in Public Support Programs, by Family Structure and Income (Annual Averages, 2007-2011)

	Percentage of All Childcare Workers with Defining Characteristic (N=683,000)	Percentage of All Childcare Worker Families Participating in One or More Public Program, by Defining Characteristic (N= 311,000)
Family Type		
Single, no children	36%	33%
Single, with children	17%	27%
Single, youngest child under 5 years old	4%	8%
Single, all children 5 years or older, through age 18	12%	19%
Married, no children	15%	8%
Married, with children	32%	32%
Married, youngest child under 5 years old	9%	11%
Married, all children 5 years or older, through age 18	23%	22%
Family Income as Percentage of Federal Poverty Level (FPL)		
Under 100%	16%	31%
100-199%	22%	35%
200-299%	20%	18%
300%+	43%	15%

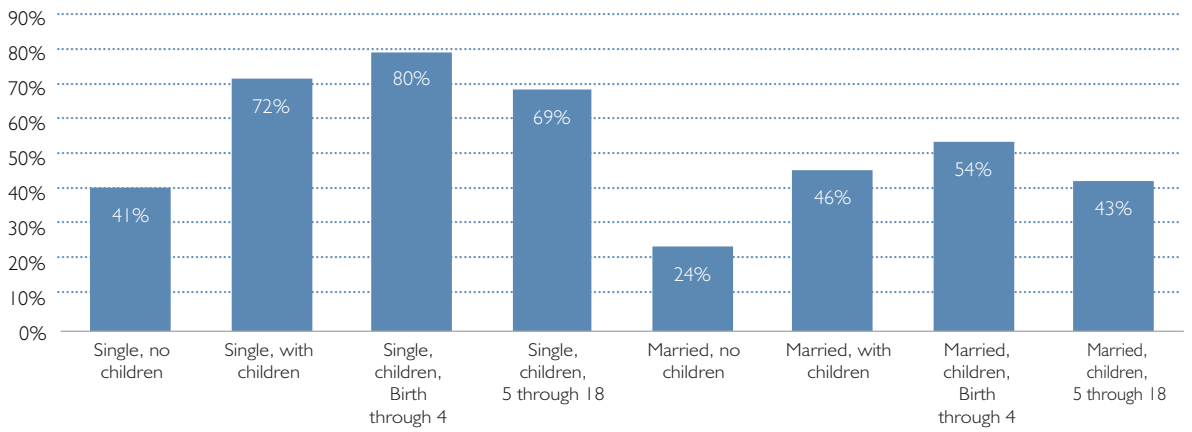
SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

FIGURE 5.4: Participation Rates by Childcare Worker Families in One or More Public Programs, by Family Income as Percentage of Federal Poverty Level (FPL) (Annual Averages, 2007-2011)[1]



SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.5.

FIGURE 5.5: Participation Rates by Childcare Worker Families in One or More Public Programs, by Family Type (Annual Averages, 2007-2011)[1]



SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.5.

Variations in Participation in Public Support Programs, by Childcare Worker Weekly Hours Worked and Wages

Participation rates by childcare worker families varied little by whether childcare workers were employed full- or part-time, but rates varied considerably by childcare worker wage level (see **Table 5.6** and **Figure 5.6**).

- Nearly two-thirds (64 percent) of all childcare workers were employed 35 hours or more per week. Their families participated in public programs at almost the same rate (45 percent) as childcare worker families (47 percent) of those who were employed fewer hours, underscoring the low earnings associated even with full-time employment in child care jobs.
- Childcare workers who earned less than the proposed $10.10 federal minimum wage were 1.5 times more likely to reside in families participating in public support programs than were those in which the childcare worker earned more than $10.10 per hour.

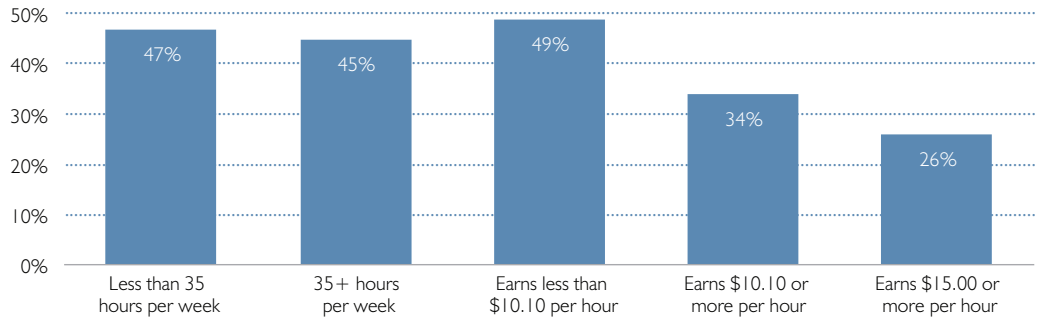
TABLE 5.6
Percentage of Childcare Worker Families Overall, and Percentage Participating in Public Support Programs, by Average Weekly Hours Worked and Wages of Childcare Workers (Annual Averages, 2007-2011)

	Percentage of All Childcare Workers with Defining Characteristic (N=683,000)	Percentage of All Childcare Workers Participating in One or More Public Program, by Defining Characteristic (N= 311,000)
Hours worked		
Less than 35	36%	37%
35 or more	64%	63%
Wages		
Less than $10.10 per hour	75%	82%
$10.10 or more per hour	25%	18%
$15.00 or more per hour	9%	5%

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

- Childcare workers who earned $15.00 or more per hour were one-half as likely as those who earned less than $10.10 an hour to reside in families participating in public support programs. One-quarter of childcare workers who earned $15.00 or more per hour had families participating in at least one public support program, however, underscoring how even the highest-paid childcare workers struggle to meet the economic needs of their families.

FIGURE 5.6: Participation Rates by Childcare Worker Families in One or More Public Programs, by Average Weekly Hours and Wages (Annual Averages, 2007-2011)[1]



SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.6.

Variations in Participation in Public Support Programs, by Educational Background of Childcare Workers

Childcare worker family participation rates were lower when childcare workers had higher levels of educational attainment. Nevertheless, reflecting the low pay associated with child care jobs, a sizeable percentage of childcare worker families in which the childcare worker held a two-year or four-year college degree relied on public supports (see **Table 5.7** and **Figure 5.7**).

- More than one-quarter (29 percent) of childcare worker families in which the worker had earned a B.A. or higher degree, and two-fifths (41 percent) of those in which the worker had an A.A. degree, accessed at least one public support program. In contrast, 67 percent of childcare worker families in which the worker had no high school diploma, 48 percent of those in which the worker had only a high school diploma, and 45 percent of those in which the worker had completed some college participated in one or more programs.

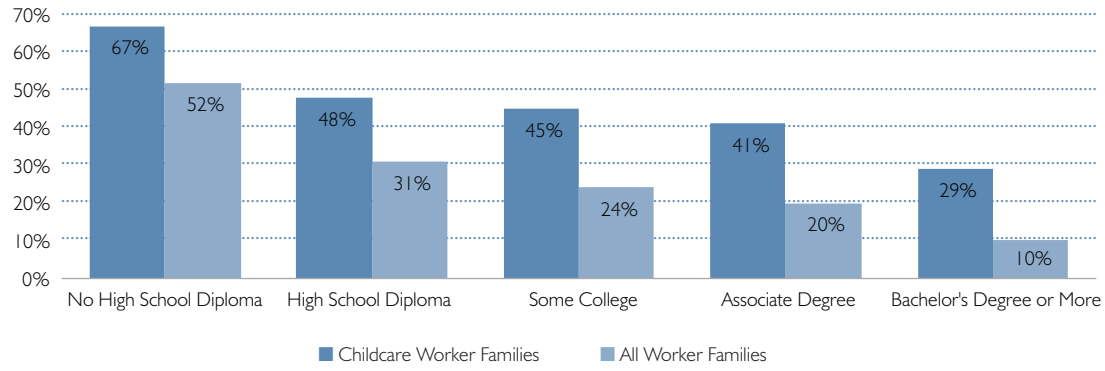
- At every level of worker education, participation in public support programs was higher for childcare worker families than for the families of all other U.S. workers with similar education.
- Reflecting the limited education premium earned in early care and education settings, participation in public support programs was nearly three times higher for childcare worker families with bachelor or higher degrees compared to all other workers in the U.S. with equivalent education.

TABLE 5.7
Percentage of Childcare Worker Families and All U.S. Worker Families Overall and Percentage Participating in Public Support Programs, by Educational Attainment (Workers 25 Years or Older) (Annual Averages, 2007-2011)

	Percentage of all child care workers (N=683,000)	Percentage of all child care worker families participating in one or more public support programs (N= 311,000)	Percentage of all workers in U.S. (N=126 million)	Percentage of all worker families in U.S. participating in one or more public support programs (N=31 million)
No high school diploma	15%	17%	9%	21%
High school diploma	35%	29%	26%	34%
Some college	27%	21%	22%	22%
Associate degree	9%	6%	9%	8%
Bachelor's degree or more	14%	9%	34%	15%

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.

FIGURE 5.7: Participation Rates in One or More Public Programs by Childcare Worker Families[1] and All Worker Families, by Worker Educational Attainment (Annual Averages, 2007-2011)



SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data.
[1]For more information on the sample, see Table 5.7.

Concluding Thoughts

A widely-shared belief in the impossibility of solving the early childhood workforce wage problem, along with assumptions about the rationality of markets, serves to entrench unlivable wages for many in this workforce. Yet the cost estimate associated with utilization of public supports by childcare worker families suggests that our U.S. early care and education system can be aptly described as "penny wise and pound foolish." And in all likelihood, the tab for early childhood teachers' low pay runs even higher, not only because our analysis was restricted to a single segment of the workforce, but because other uncalculated costs and financial consequences were not included. If teachers were better paid, for example, many in the early childhood workforce would contribute more to the tax base, and purchase more goods and services in their communities.

As in any business, the hidden costs associated with turnover, to which poor compensation is a major contributor, include the lost opportunity to improve and sustain higher quality; the disruptions to classroom teams that can beget more departures; and the costs of recruiting, hiring, and training replacement staff. These costs mount when investments have been made in the professional development of departing teachers. At present, these costs are impossible to calculate, because data about the career trajectories of those who participate in professional development and education activities are either incomplete or not collected.[129] Nevertheless, it is safe to assume that many thousands of dollars are spent per program each year that could be better used to cover higher wages and to fund professional development opportunities.[130]

Finally, there are the uncalculated costs to children and families who suffer the consequences of unstable and poor-quality early learning programs. These costs likely surface in the form of compromised school readiness, parents' absenteeism at work, family stress, and loss of returns on the public investment made in early care and education. These are among the reasons that states with proven records of success in their pre-kindergarten programs, and the high-quality early intervention programs that preceded them, have made it a core program component to offer pre-K teacher salaries comparable to those of K-12 teachers in their districts.[131]

Bearing in mind this information about costs and consequences, we turn next to an appraisal of the extent to which state and national efforts to improve ECE quality have addressed the low wages of the early childhood workforce. We have learned that early care and education programs have the potential to ameliorate child poverty, but as it now stands, they also generate poverty among adults in the predominantly female early childhood workforce, and their families. To what extent do our policies grapple with this contradiction?

CHAPTER 6

Policy Efforts to Improve Early Childhood Teaching Jobs

(Co-authored by Harriet Dichter, Early Childhood Consultant, and Lea J.E. Austin and Fran Kipnis, Center for the Study of Child Care Employment)

"The major funding sources for child care and early education should set aside a dedicated portion of funds to support initiatives that jointly improve the qualifications and increase the compensation and benefits routinely provides to children's nonparental caregivers."

– Neurons to Neighborhoods, 2000

Within a year of the release of the National Child Care Staffing Study (NCCSS), three major laws passed by Congress—the Military Child Care Act of 1989, the 1990 Head Start Expansion and Quality Improvement Act, and the 1990 Child Care and Development Block Grant (CCDBG) – addressed, to varying degrees, the training, education, and compensation of the early childhood workforce.

Then, as now, the vast majority of the early childhood workforce was employed in settings other than Head Start and military programs. Thus they, and by extension the children they served, did not benefit from the salary and training provisions of the Military Child Care or Head Start Acts. Many in the early childhood workforce today, as in 1990, work in programs that do not receive funding from any public source. A large proportion, however, do work in settings receiving CCDBG-funded child care subsidies, and thus the CCDBG funds have been viewed as key for addressing compensation.

To inform the current discussion of the role of public policy and quality improvement strategies in advancing early childhood teacher compensation, we examined federal, state and local early care and education quality improvement and workforce development initiatives. Specifically, we wanted to learn if, and how, compensation strategies are being advanced and expanded to encompass the early childhood workforce working with children from birth through preschool across all auspices.

Federal Early Care and Education Policy and Compensation Today

Child Care and Development Block Grant (CCDBG)

The CCDBG is the largest single federal funding stream for early care and education, as it was in the 1990s, and its resources have always been primarily devoted to increasing access to early care and education services for children in low-income working families. States are provided with a block grant with few restrictions attached. In practice, the CCDBG empowers states to make decisions about teaching staff qualifications and per-child reimbursement rates. These rates are not based on assessments of the cost of improving teacher qualifications or wages; rather, they are determined by market rate studies of current, local child care conditions and costs.[132] These decisions, in turn, influence the compensation levels for the early childhood workforce in programs receiving CCDBG funds. From its inception, one component of the CCDBG has been a "set-aside" for quality improvement that has included staff compensation in a list of allowable (but not required) quality expenditures, along with staff training, licensing enforcement, and referral services for parents.[133]

The structure and financing levels of federal block grants do little to advance a structure for improving teacher compensation. The families served by these programs are typically very low-income, and thus are not a viable source of funds for upgrading teacher compensation. As a result, the small quality set-aside, currently four percent of total CCDBG funds, has remained the primary vehicle for addressing the financial needs of many in the workforce.[134] The net impact is that compensation strategies that rely solely on CCDBG funds have been constrained from their inception.

Over the years, greater recognition among policymakers of the importance of early care and education and the quality of child care services for at-risk children and their families has increased focus on the professional status of the early childhood workforce. But this recognition has not translated evenly to federal policy or funding priorities across programs; nor has it necessarily prompted state actions. CCDBG, for example, now requires states to report on their efforts and goals related to five "essential elements" of early childhood workforce systems for delivering high-quality programs:[135] 1) Core Knowledge and Competencies (CKCs); 2) Career Pathways (or a Career Lattice), 3) Professional Development Capacity; 4) Access to Professional Development; and 5) Compensation, Benefits and Workforce Conditions. Although compensation is included in this list, the lack of specific guidance, articulated goals, or sufficient dedicated resources limits the likelihood of significant gains in the compensation of this workforce.

Head Start

The 1990 Head Start Expansion and Quality Improvement Act required that at least half of its quality improvement funds be used for staff compensation, including benefits, and encouraged Head Start agencies to provide compensation according to salary scales based on training and experience.[136] With regard to Head Start, explicit policy in the program's 2007 Reauthorization requiring teachers' attainment of degrees has transformed the educational composition of the Head Start teaching workforce.[137] Although a portion of the 25 percent quality set-aside in Head Start may be used for salary increases, the absence of a compensation goal on par with that set for educational attainment, along with other program demands on available funds, has resulted in a misalignment of Head Start teacher qualifications and teacher pay.

Department of Defense Child Care

The Military Child Care Act of 1989 (MCCA) raised requirements for child development staff training and required compensation at rates equivalent to that of other military employees with comparable training, seniority, and experience.[138] The workforce provisions of the MCCA remain in place today, with a well-articulated career ladder and pay scale guiding the compensation of the teaching staff in Department of Defense-operated early care and education programs.

Recent Federal Early Care and Education Initiatives and Compensation: Race to the Top-Early Learning Challenge Grants (ELCG), Early Head Start (EHS)-Child Care Partnerships, and Preschool Development and Expansion Grants

More recent federal initiatives, such as the Race to the Top-Early Learning Challenge Grants (ELCG)[139] and the Early Head Start (EHS)-Child Care Partnerships,[140] also identify but do not require compensation as an allowable use of funds. Delaware, among others, offers a hopeful sign:[141] ELCG resources are being used to fund a salary supplement for teachers in programs participating in the state QRIS, Delaware Stars for Success; continuing supplementation will depend on new state or federal funds. San Diego, California is also using ELCG funds, along with First 5 dollars to support a similar effort.[142]

The Early Head Start-Child Care Partnership is a recent competitive grant opportunity from the Office of Head Start, Department of Health and Human Services, to support the partnering of Early Head Start (EHS) programs with child care providers to expand the number of high-quality slots for infants and toddlers.[143] Successful grant recipients must demonstrate that teachers in participating child care programs have or will earn a Child Development Associate (CDA) Infant/Toddler credential, as is required of Early Head Start teachers, but there is no parallel requirement to align compensation with teacher credentials, training, or education.[144] As our earlier analysis of the Head Start PIR data reveals, raising education requirements and

quality standards without an explicit compensation policy and dedicated resources leaves compensation to compete for a limited pool of funding with a host of other pressing program needs. Although the Office of Head Start will award successful applicants a grant with a project period of five years, the amount of funding is subject to annual appropriations passed by Congress and signed into law by the President, and annual appropriations could increase, decrease or remain level. Without predictable, long-term funding, program administrators are often reluctant to provide ongoing raises to teaching staff. It remains to be seen whether these new federal initiatives will lead to improved compensation, at least in some states and for some programs.[145]

The recently announced U.S. Department of Education Preschool Development and Expansion grants provide stronger incentives to address teacher compensation. Specifically, to qualify for these grants, states must specify how they currently include—or plan to build the capacity to include—12 elements of high quality pre-K in their state plan for establishing or expanding their public pre-K programs for eligible children.[146] One element addresses compensation specifically, requiring states to propose how they will provide "instructional staff salaries that are comparable to the salaries of local K-12 instructional staff."[147] It will be important to track these efforts to identify promising practices and to inform state and federal initiatives in the future.

State Compensation-Related Initiatives and Policies

This federal acknowledgement of compensation as an appropriate issue for public investment emboldened many early childhood teachers and other ECE advocates to launch the national Worthy Wage Campaign in 1991.[148] The campaign consolidated local teacher movements that had been active since the 1970s in several states, and brought a teacher voice to ECE policy discussions. Simultaneously, the CCDBG's acknowledgment of compensation as an allowable expense for the limited federal child care quality improvement funds galvanized teachers and providers, in the years immediately following its passage, to advocate in their states for policies targeted to financial support for wage increases and investments in education.[149]

Throughout the years, these efforts to secure state investments in compensation initiatives have met considerable impediments. Other priorities vie for limited public dollars, including professional development. The decentralization of early care and education in the U.S., fueled and sustained by multiple funding sources and regulatory requirements, combined with the variety of ECE settings and the tremendous diversity of the early childhood workforce in terms of professional preparation, makes crafting reforms a daunting task. Nonetheless, in the 1990s and early 2000s, driven in part by a robust economy and a shortage of trained teachers, many states, including California, Illinois, New York, North Carolina, Rhode Island, Washington, and Wisconsin, invested in public initiatives to improve compensation through wage bonuses or increases, health benefits, and programs to assist teachers with meeting the costs of obtaining more education. These efforts, in some states, were augmented or solely funded by other state

sources, as has been the practice in North Carolina via its Smart Start Program and in California through First 5 funds raised by tobacco tax dollars.[150] Although some of these initiatives were short-lived, others continue today, often in modified form.[151]

There are three dominant frameworks that states now use to tackle the compensation of early childhood teachers:[152]

1. Raises or salary stipends for early childhood teachers[153]
2. Quality rating and improvement systems (QRIS)
3. Public pre-K programs

The lack of comprehensive data about these efforts prevents us from providing a review of all compensation initiatives currently operating in the states, but the following examples illustrate how each strategy has been employed.

Raises and Wage/Salary Stipends[154]

Two approaches to improving compensation are: raises in base pay that recur in teachers' salaries and benefit packages, and one-time or periodic stipends that serve as bonuses or supplements to teachers' pay. There is a substantial difference between the two approaches. While the latter might be substantial in dollar amount, the added income is independent of a worker's regular pay, and thus does not provide an ongoing wage increase for the duration of one's employment. In the case of supplements, the recipient must periodically apply for the additional funds, must frequently arrange independently to pay taxes on them, and may have to meet other criteria to continue to qualify.

Raising Base Salaries

Initiatives designed to raise base salaries for all teachers in a given setting or group of programs can be subdivided into two categories: (1) those that apply to all programs of a given type or supported by the same funding source (system-based), and (2) those for which programs must meet certain criteria to participate (eligibility-based). The salary provisions of the Military Child Care Act are a prominent example of system-based initiatives; all ECE settings operated by the Department of Defense are required to comply with the General Services wage scale.

There exist only a few state and local initiatives aimed at raising the salaries of early childhood teachers, and these have typically been eligibility-based initiatives. San Francisco's C-WAGES program is a prime example. It uses local public dollars to augment the wages of, and contribute to health and retirement benefits for, early childhood teaching staff in center- and home-based programs where at least 25 percent of enrolled children are in families living below 75 percent of the state median income.[155] Participation in C-WAGES requires that programs adhere to a

wage floor, differentiated by job and education levels, and participate in quality rating and improvement activities. Funding for C-WAGES, which began in 2012, is planned for renewal every three years.

Supplementing Salaries with Stipends

The most widely adopted approach to addressing teacher compensation has focused on wage or salary stipends for individual early childhood teachers. The WAGE$ program developed by T.E.A.C.H. Early Childhood®, for example, offers salary stipends to teachers once they have reached clearly defined educational benchmarks, such as a degree or credential in states that offer the T.E.A.C.H Early Childhood® Scholarship.[156] These stipends may be renewed annually for qualifying teachers if funds are available. WAGE$, currently operates in only five of the 25 locales that offer T.E.A.C.H. scholarships.[157] Although Wisconsin is a T.E.A.C.H. state, it has designed its own stipend program, REWARD Wisconsin, a compensation and retention initiative for members of the ECE workforce. Based on their educational attainments and longevity in the field, individuals receive incremental yearly salary stipends. Support for this program originates from federal CCDBG funding, and must be approved every two years through the state budget process.[158]

As stipends are not built into the permanent funding system for ECE services, they are vulnerable to changes in state budgets and priorities, and limited to teachers working in certain types of programs, those serving particular groups of children, or those meeting specific education and training requirements. Wage supplements are often the first to be cut during tight economic times, either by limiting eligibility to those who earn under a specified wage amount, reducing supplement amounts, or reducing the number of available supplements. In California, for example, the Compensation and Recognition Encourage Stability (C.A.R.E.S.) program was eventually transformed from a salary supplement initiative to one that promotes the attainment of professional development through stipends.[159] This shift is even reflected in the changed meaning of the C.A.R.E.S. acronym, which currently stands for Comprehensive Approaches to Raising Educational Standards. States that have adopted WAGE$, or that create other wage supplement or stipend programs, have determined different eligibility criteria and stipend amounts, which are typically quite limited.

Stipends do not fundamentally shift the earnings of recipients. Among North Carolina teachers and assistant teachers participating in WAGE$ in 2011, for example, 43 percent received a salary supplement funded by Smart Start and the Division of Child Development and Early Education. According to Child Care WAGE$ information, the average mean six-month supplement for all participants that year was $876 (equivalent to $0.84 per hour for employees working full time), and in Wisconsin, the highest stipend level is $900.[160] Despite their limitations, however, they may be the most politically feasible option in some climates and delivery systems for ad-

dressing early childhood teacher compensation, and providing some additional compensation directly to teachers across settings that would not otherwise be available. Beyond their financial component, these efforts recognize and reward an individual's career investment, encourage professional development, and contribute to retaining trained teachers.[161] Yet if the long-term goal of the movement for better child care jobs and services is to be met, policy interventions to increase early childhood teacher income will ultimately need to be delivered in the more dependable and less cumbersome form of predictable, ongoing income.

Quality Rating and Improvement Systems (QRIS)

The Quality Rating and Improvement Systems (QRIS)[162] approach to quality improvement pays minimal attention to workforce compensation. Although QRIS may mention salaries, these rating indicators are more typically related to programs having an incremental pay scale in place, but nearly silent on any guidance as to what those levels should be.[163] QRIS could be an opportunity to signal that compensation and retention are just as important as education levels as markers of quality, but overall, QRIS do not include salary levels as part of their ratings. The cost of paying teachers appropriately is not figured into the costs of supporting programs to improve quality. Unless allocated resources are specifically designated for individual teachers, programs make other decisions about how to use financial enhancements to improve or sustain quality. A limited number of states are providing annual stipends to teachers whose programs are within the QRIS. These supplements operate much like those described above, but teachers must work in a program that participates in the QRIS, and the amounts may be pegged to the teacher's standing on the state's career lattice. There may be both minimum and maximum salary requirements for staff. Across programs in four states reviewed for this report, Delaware,[164] Maryland,[165] Pennsylvania,[166] and San Diego, California,[167] the stipend amount an individual might receive can range from $200 to over $3,000 per year. Based on the current earnings of early childhood teachers, the overall amounts may not be sufficient to materially change their economic status.

Public Pre-K Programs[168]

In most states, the pre-K financing structure, with dedicated ongoing funds, is more generous than that of child care or Head Start. Thus, wage comparability with K-12 for early childhood teachers with equivalent education is most likely to be approached or achieved in state-sponsored pre-K programs. But resources are not necessarily a guarantee that compensation will be addressed in pre-K. Some states have no explicit salary guidelines for pre-K teachers. Within states that do, there are a variety of approaches being used to address teacher compensation. States may operate their pre-K programs through local school districts and/or community-based

early care and education programs, and compensation policies are often different within a state depending on program setting.

The most comprehensive and systemic approach is found in Oklahoma,[169] which has a district-offered pre-K program, available to all children in the state. Each Local Educational Agency (LEA) in that state employs pre-K teachers, who are paid based on district salary and benefit levels. Alaska requires all pre-K teachers working in school-based and community-based programs to be on the district K-12 teacher salary scale, as does New Jersey.[170,171] In the New Jersey State Preschool Program, pre-K programs in all settings must offer health benefits, but they do not have to be equivalent to those offered in K-12. Other benefits, including vision, dental and retirement, are optional for community-based pre-K programs in New Jersey.

North Carolina and Georgia provide salary scales, detailing qualifications and experience, that apply to all pre-K teachers regardless of setting; these scales apply to the state pre-K program as a whole, but are not necessarily aligned with public school salaries.[172,173] Thus, pre-K teachers across the state are paid equivalently, but not necessarily at a rate comparable to K-12 teachers. New York City's new pre-K program is taking advantage of funding offered by the state to meet the pay floor established to provide starting salaries in community settings to certified teachers that are comparable to starting salaries for certified pre-K teachers working in school-based programs. There is no requirement to offer comparable benefits or to reward experience in accordance with the school-based pre-K-12 teacher pay scale.[174] New York City community-based pre-K programs may set salaries above the established pay floor, but are required to use their own resources to further increase compensation.

Approaches such as those underway in Georgia and North Carolina help to create a level playing field for teachers in state pre-K programs, regardless of the setting in which they work, but the models advanced by Oklahoma, New Jersey and Alaska currently provide the greatest opportunity for teachers to earn salaries that match or approach those paid to teachers of older children.

Concluding Thoughts

While the current policy framework and discussion in the states is increasingly focused on delivering quality to young children, and ensuring improved school readiness outcomes, teacher quality is defined primarily in terms of acquisition of degrees, credentials and training. An implicit assumption across state and federal policies, with few exceptions, is that professional salaries will follow increases in education and credential levels. As a result, the task of creating intentional policies to address compensation is generally ignored. Of the five out of ten National Institute for Early Education Research (NIEER) benchmarks of high-quality state preschool programs that address teaching staff, all are focused on teacher qualifications; compensation is not included.[175]

Likewise, in QRIS, standards commonly address teachers' and leaders' professional qualifications, but not the amount of compensation they require.

The most ambitious salary efforts are occurring for teachers working in state-funded school-based preschools, primarily working with four-year-olds. While QRIS and stipend compensation initiatives seek to benefit teachers of infants, toddlers, and preschoolers alike, they are more limited in scope. Additionally, in settings where state pre-K funds are comingled with other funding streams, issues of equity often arise. A pre-K teacher may earn more than a teacher with equivalent background and education in a classroom of a different age cohort, or even the same age cohort that has not been included in the state's pre-K program.

It is worth recognizing that it took kindergarten teachers nearly 100 years to be considered the equals of other teachers in public school systems.[176] Their task, while challenging, was made easier because they mostly were employed in the public schools already, and were seeking inclusion in a relatively uniform, coherent system of services for which there was widespread public support. Most importantly, kindergarten in most states is financed similarly to higher grades. The early childhood workforce, by contrast, faces an unwieldy, cumbersome, and inefficient mix of services, and finds itself spread across a variety of settings with great disparities in financing levels and mechanisms. It is no accident that the most explicit and strongest compensation policies are found in those federal programs or states with the most generous financing per child.

Aligning compensation to educational qualifications does not yet appear to be a central, motivating theme across the current continuum of state and federal early care and education policies and programs. Nor is there yet a well-defined national strategy for financing early care and education services that would enable the states to support programs to sufficiently reward all members of the early childhood workforce, regardless of age of children or setting, and to relieve the tremendous cost burden that so many struggling working families face. Another 25 years is too long to wait to improve early childhood jobs, as a matter of justice to the early childhood workforce, their own families, and the children of the families they serve. The final pages of this report offer our thoughts about the most pressing issues facing the early childhood workforce that require urgent action and must guide a comprehensive re-appraisal of the nation's early care and education policies. We also offer several short-term steps that would begin to move the nation in the right direction, while acknowledging that the most important ingredient for change is buy-in to the aspirational goal of ensuring that we esteem and compensate those who care for and educate young children when their parents are not available.

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CHAPTER 7

A Path Forward: Recommendations

"The time is long overdue for society to recognize the significance of out-of-home relationships for young children, to esteem those who care for them when their parents are not available, and to compensate them adequately…"

– Neurons to Neighborhoods, 2000

The National Child Care Staffing Study (NCCSS) was released when the country was both highly ambivalent about very young children spending substantial time in child care, and busy reconsidering federal and state investments in early care and education (ECE). This update is being released at a time when governments are once again debating their investments in ECE, notably in pre-K education, with ripple effects felt throughout the field. However, today's debates are taking place in the context of high-level praise for these investments as a primary vehicle for children's lifelong success. The new evidence reported here also coincides with a national conversation about disparities in income growth and assets among Americans, the social and economic consequences of low-wage jobs, and increasing economic insecurity in families, particularly those headed by single women with children. The central message of this report is that early childhood teachers are among those in low-wage jobs who are deeply affected by these economic conditions – a message that we hope will be received with new urgency as the consequences of these conditions are borne collectively by teachers, their own children, and the children of others for whom they are responsible.

This report calls attention to three persistent features of early childhood jobs that require a new policy approach, namely pervasive economic insecurity, the low value accorded educational attainment, and an irrational wage structure.

First, it is widely recognized that a strong system of early care and education is an important departure point for a strong economy. It is the foundation upon which reliable parental employment rests. It is the first step on a child's path towards school success and later economic well-being. Our society's expectations of the early childhood workforce, comprised mostly of women, have never been higher. It is time to ensure that these women, who are the backbone of this system, are not underpaid relative to their experience and educational attainment, suffering economic insecurity or struggling to meet the economic needs of their own families.

Until these needs are addressed, the public will continue to pay billions of dollars in income supports to shore up the well-being of this workforce.

Second, the premium on higher education has never been greater for the U.S. labor force as a whole. Higher educational achievement is seen as necessary to draw and retain talent in highly-skilled and valued professions. Unfortunately, the lofty rhetoric about the value of early care and education contrasts with the persistent wage gap between college-degreed early childhood teachers and both their equivalently educated colleagues who teach older children and their counterparts in the civilian labor force. Furthermore, the persistent lack of sustainable wage incentives for teachers who have attained higher levels of education undermines efforts to recruit and retain valued professionals. Initiatives within the early childhood field to incentivize and encourage educational attainment among its teachers have not been matched by equivalent investments to bring their compensation in line with their hard earned (and often expensive) degrees. It is time to confront the low premium that is placed on educational attainment within the early childhood teaching workforce. This is both a matter of equity and essential to attracting the next generation of early childhood teachers from the ranks of current undergraduates and recent graduates seeking meaningful and economically viable employment. It is essential that we promise them a fulfilling career that rewards their skill, talent, and education, and allows them to support their own families.

Third, valued professions, ranging from nursing to K-12 teaching to military service, have rational and transparent salary structures tied to preparation, education and advancement within the field. Funding and structural fragmentation in the early care and education system has produced wide disparities in qualifications and compensation by the sector and setting in which a teacher is employed. The ages and family income of the children for whom a teacher is responsible further contribute to these disparities. As more public pre-K dollars flow to community-based programs as part of mixed delivery systems, the increasingly common practice of paying teachers with equivalent qualifications on different wage scales should end. The time is long overdue to establish a coherent, rational and equitable salary structure for the early childhood workforce, in accord with public statements – and pervasive evidence – about the valued service they provide to the country by contributing to children's learning and well-being.

These tensions surrounding the economic insecurity, low value accorded educational attainment, and irrational wage structure that affect the early childhood workforce call for a major restructuring of how we finance and deliver early care and education. Improving compensation for early childhood teachers can no longer be left to discretionary and sporadic initiatives. Current initiatives, while not without important impacts, tend to be limited in scope, to compete for quality improvement funds with professional development and other pressing priorities, and to rely on one-time or short-term funding supplements.

While we note the many efforts that have been undertaken over the last quarter century to improve quality and access, an even greater investment tied to a major reorganization of the early care and education delivery system remains necessary. This effort must encompass issues of access and cost for families; quality for children; and preparation, support and rewards for the workforce. We need, in the words of the 1990s Worthy Wage Campaign, to find a "much better" and "more equitable" way to help parents pay and to attract teachers and help them stay – something that our Department of Defense, a handful of state pre-K programs, and most other industrialized nations, have managed to accomplish.

Rather than offer a lengthy set of recommendations for specific actions, many of which have been made before and gone unheeded, we call for a focused and comprehensive reassessment of the nation's early care and education policies aimed at addressing each of these three entrenched, yet intolerable conditions affecting the early childhood teaching workforce, and the children and families they serve. We call upon policymakers at all levels, in concert with other stakeholders ranging from business and finance leaders to early childhood teachers and parents to undertake the following:

- To identify and mobilize a sustainable, dedicated source of public funding to upgrade the compensation of those who care for and educate our nation's young children. Dedicated funds are a prerequisite for ensuring that the wellbeing of the early childhood workforce does not come at the expense of the equally urgent economic needs of families, already overburdened by the high cost of early care and education.
- To prepare a rational, equitable, and transparent set of guidelines for determining regionally-based entry level wages and salary increases based on education and training, experience, and seniority within the early childhood field.
- To establish workplace standards for early childhood teachers that foster, rather than undermine, their capacity to provide children with emotional security, appropriate early learning experiences, and a responsive and caring social environment. These standards would address program practices necessary for teachers to engage in professional practice, such as paid planning and meeting time, as well as alleviating conditions that cause teachers' stress, such as undependable work schedules, inadequate staffing, and lack of provisions for paid sick leave.
- To develop a strategy and timeline for requiring all ECE programs and providers receiving public funds comply with the compensation guidelines and work standards within a reasonable period of time.

Besides these long-term goals, there are immediate opportunities that offer fertile ground for making inroads into improving early childhood employment and services within the current system. Progress on this shorter-term agenda would also provide initial evidence and insights to inform the work outlined above. We recommend that:

- States, through their Quality Rating and Improvement Systems (QRIS), and entities such as the National Institute for Early Education Research that provide guidelines for improving state ECE policy, strengthen these existing vehicles for encouraging quality programs by including workplace and compensation policies among their quality criteria.
- The next reauthorization of Head Start include a plan, with an associated request for increased and earmarked federal funding, dedicated to bringing Head Start and Early Head Start teaching staff salaries in line with Head Start teachers' dramatically increased qualifications. Head Start is the cornerstone of our nation's early care and education offerings for young, low-income, minority, and special needs children. It has always served as a national laboratory for identifying best practice in this field. It has also made tremendous inroads into assuring that the teachers of the children and families it serves are well qualified to prepare them for the next stage of their education. As such, it affords one of the most promising platforms for identifying and implementing strategies for bringing compensation within the early care and education field in line with both the educational levels and responsibilities that characterize these teachers' work.
- Federal and state policies regarding quality improvement funds be revised to ensure that professional development and compensation efforts, rather than competing with each other, be linked with appropriately dedicated funds. The goal is to ensure that improvements in qualifications are accompanied by comparable improvements in wages that bring ECE teacher pay in line with the earnings of similarly qualified individuals in the civilian labor force.
- Funds be made available to help states build, strengthen and sustain data systems, such as workforce registries, that provide comprehensive data on wages, benefits, educational levels and turnover rates for all teaching staff, including assistant teachers and aides, across ECE settings receiving public dollars. To support the efficient and effective use of public dollars, these data systems must have the capacity to track quality improvement investments so that funds spent on professional development and compensation investments, respectively, can be disaggregated. In addition, these systems should be designed to capture the extent to which members of the ECE workforce participate in education and professional development activities, receive compensation increases, and remain in the ECE field.
- Researchers who study early care and education policy and both the developmental and societal impacts of ECE renew attention to the adult work environment and teacher well-being as critical elements affecting (a) developmentally supportive practices in ECE settings and (b) cost-benefits of these settings' impacts in the short and longer-term.

We set the stage for this report by examining the altered landscape on which discussions about the status of the early care and education workforce are now taking place. Developmental scientists, economists, and business leaders have lent early care and education a prominent position on this landscape in shaping children's development and, ultimately, the health of the economy. This focus raises the stakes considerably on the need to ensure the sensitivity, skill and well-being of early childhood teachers. The response thus far has been to make notable, although uneven, strides in improving the education and training levels of the workforce. But efforts to link these improvements to policies that address teachers' own economic well-being have been largely optional, selective, and sporadic. The result is a highly uneven playing field on which the wages of teachers depend more on where they work and the ages of the children they teach than on their qualifications.

Economic insecurity, linked to wages, is endemic, especially among teachers who have children of their own. The economic cost to society of continuing along these same lines is considerable. The conservative estimate provided in this report approaches $2.5 billion in annual costs on public supports. The cost to families is felt in skyrocketing payments for early care and education that are going somewhere other than to their children's teachers. The costs to children of less than optimal services are largely uncalculated.

During World War II, the nation mobilized and paid certified teachers to work in the child care centers serving the children whose mothers were "manning" the war factories. The Head Start program has steadily increased the share of its teachers with bachelor's degrees, now exceeding 50 percent. The Department of Defense re-invented its early care and education system as a compact with service members that their children would be well cared for by competent, adequately compensated teachers while they were at work.

These decisive efforts demonstrate the power of leadership to set and achieve aspirational goals that spur our nation to make the changes we need. It is our hope that the new evidence reported here will spur the nation to not only aspire to, but also guarantee livable, equitable, and dependable wages for early childhood teachers, of whom we expect so much, but to whom we still provide so little.

APPENDIX

TABLE A3.1
Mean Hourly Wages by State for Childcare Workers, Preschool Teachers, and Kindergarten Teachers

	Child Care Workers			Preschool Teachers			Kindergarten Teachers		
	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage[1]	1997 Real Mean Hourly Wage in 2013 Dollars[2]	2013 Actual Mean Hourly Wage[1]
Alabama	$6.47	$9.39	$8.83	$7.46	$10.83	$13.32	$14.51	$21.06	$23.07
Alaska	$8.09	$11.74	$11.45	$11.01	$15.98	$17.30	$23.25	$33.75	$31.25
Arizona	$6.39	$9.27	$10.00	$7.67	$11.13	$12.20	$14.87	$21.58	$20.25
Arkansas	$5.87	$8.52	$8.69	$7.00	$10.16	$14.73	$14.44	$20.96	$21.40
California	$7.76	$11.26	$11.86	$9.66	$14.02	$16.46	$19.29	$28.00	$30.74
Colorado	$6.87	$9.97	$11.48	$9.14	$13.27	$14.98	$15.32	$22.23	$21.75
Connecticut	$8.71	$12.64	$11.06	$10.80	$15.68	$16.60	$21.85	$31.71	$33.17
Delaware	$7.03	$10.20	$10.37	$8.66	$12.57	$11.57	$16.34	$23.71	$27.91
Florida	$6.81	$9.88	$9.86	$7.58	$11.00	$12.53	$13.65	$19.81	$22.12
Georgia	$6.41	$9.30	$9.75	$10.46	$15.18	$14.41	$15.58	$22.62	$25.05
Hawaii	$6.75	$9.80	$9.56	$9.38	$13.61	$15.79	$18.18	$26.39	$20.82
Idaho	$6.57	$9.54	$9.47	$7.51	$10.90	$12.79	$8.47	$12.30	$20.22
Illinois	$7.75	$11.25	$10.86	$10.47	$15.20	$14.17	$16.75	$24.32	$24.53
Indiana	$6.71	$9.74	$9.31	$8.05	$11.68	$12.72	$16.30	$23.66	$23.77
Iowa	$6.35	$9.22	$8.82	$7.46	$10.83	$13.01	$15.56	$22.59	$22.54
Kansas	$6.35	$9.22	$9.52	$7.85	$11.39	$14.22	$14.64	$21.26	$22.02
Kentucky	$6.37	$9.25	$9.36	$8.60	$12.48	$17.67	$15.36	$22.30	$24.82
Louisiana	$5.92	$8.59	$8.96	$8.11	$11.77	$15.35	$13.91	$20.19	$23.43
Maine	$7.70	$11.18	$10.08	$8.27	$12.00	$13.77	$14.44	$20.96	$22.39
Maryland	$7.24	$10.51	$11.07	$10.70	$15.53	$15.44	$13.72	$19.91	$23.51
Massachusetts	$8.58	$12.45	$12.47	$10.10	$14.66	$16.54	$16.97	$24.63	$30.62
Michigan	$7.38	$10.71	$10.33	$9.30	$13.50	$15.36	$17.31	$25.13	$25.65

TABLE A3.1 continued

	Child Care Workers			Preschool Teachers			Kindergarten Teachers		
	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage[1]	1997 Real Mean Hourly Wage in 2013 Dollars[2]	2013 Actual Mean Hourly Wage[1]
Minnesota	$7.90	$11.47	$10.62	$10.35	$15.02	$15.81	$19.97	$28.99	$27.09
Mississippi	$5.73	$8.32	$8.73	$7.44	$10.80	$12.48	$12.16	$17.65	$19.95
Missouri	$6.71	$9.74	$9.51	$7.58	$11.00	$13.37	$14.02	$20.35	$22.63
Montana	$6.14	$8.91	$9.88	$7.75	$11.25	$11.73	$12.25	$17.79	$21.23
Nebraska	$6.46	$9.38	$9.12	$7.61	$11.05	$14.88	$14.05	$20.39	$22.28
Nevada	$7.06	$10.25	$10.24	$8.97	$13.02	$11.67	None listed	N/A	$25.27
New Hampshire	$7.15	$10.38	$10.52	$8.98	$13.03	$13.27	$12.74	$18.48	$21.95
New Jersey	$8.08	$11.73	$11.23	$10.03	$14.56	$17.77	$20.27	$29.43	$29.09
New Mexico	$6.49	$9.42	$9.13	$8.88	$12.89	$13.88	$13.71	$19.90	$22.26
New York	$7.86	$11.41	$11.94	$10.91	$15.84	$20.99	$19.55	$28.37	$31.50
North Carolina	$6.69	$9.71	$9.57	$7.89	$11.45	$12.27	$14.27	$20.72	$19.96
North Dakota	$6.18	$8.97	$8.92	None listed	N/A	$12.83	None listed	N/A	$21.39
Ohio	$6.85	$9.94	$10.34	$8.35	$12.12	$12.27	$17.06	$24.77	$26.21
Oklahoma	$6.38	$9.26	$9.39	$7.60	$11.03	$13.04	$12.45	$18.07	$19.57
Oregon	$7.31	$10.61	$11.18	$8.52	$12.37	$13.19	$12.63	$18.33	$25.81
Pennsylvania	$7.11	$10.32	$9.84	$8.51	$12.35	$13.36	$19.14	$27.78	$26.68
Rhode Island	$7.28	$10.57	$11.42	$10.08	$14.63	$16.45	$18.32	$26.59	$32.32
South Carolina	$6.24	$9.06	$9.07	$8.15	$11.83	$12.91	$13.41	$19.47	$23.42
South Dakota	$6.61	$9.59	$8.84	$8.78	$12.74	$14.10	$11.92	$17.30	$18.85
Tennessee	$6.03	$8.75	$9.15	$7.25	$10.52	$13.11	$15.30	$22.21	$22.58
Texas	$6.42	$9.32	$9.33	$7.96	$11.55	$16.48	$15.98	$23.19	$23.84
Utah	$6.54	$9.49	$9.73	$7.42	$10.77	$11.66	$11.90	$17.27	$20.50
Vermont	$7.45	$10.81	$11.56	$9.72	$14.11	$15.47	$15.63	$22.69	$25.16
Virginia	$6.70	$9.72	$9.98	$9.30	$13.50	$15.87	$14.94	$21.68	$27.75

TABLE A3.1 continued

	Child Care Workers			Preschool Teachers			Kindergarten Teachers		
	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage	1997 Real Mean Hourly Wage in 2013 Dollars	2013 Actual Mean Hourly Wage	1997 Actual Mean Hourly Wage[1]	1997 Real Mean Hourly Wage in 2013 Dollars[2]	2013 Actual Mean Hourly Wage[1]
Washington	$7.30	$10.60	$11.20	$9.49	$13.77	$13.66	$15.94	$23.14	$25.89
West Virginia	$6.00	$8.71	$8.63	$9.70	$14.08	$13.77	$15.62	$22.66	$22.75
Wisconsin	$7.05	$10.23	$10.09	$8.99	$13.05	$13.16	$17.26	$25.05	$25.38
Wyoming	$6.05	$8.78	$10.84	$10.25	$14.88	$13.29	$14.14	$20.52	$26.03

SOURCE: Occupational Employment Statistics (OES) Data, Bureau of Labor Statistics, Department of Labor: http://stats.bls.gov/oes/tables.htm.

[1]Hourly wages for kindergarten teachers were calculated by dividing the annual mean salary by 40 hours per week, 52 weeks per year.

[2]1997 real mean hourly wages (in 2013 dollars) were calculated using the CPI Inflation calculator: http://data.bls.gov/cgi-bin/cpicalc.pl).

TABLE A4.1
Percentage of Teaching Staff Expressing Worry[1], by Wage[2]

	Earning Less than $12.50 per Hour	Earning $12.50 or More per Hour	χ^2
Getting laid off from my job	34%	25%	$\chi^2(1) = 4.275$, $p = .039$
Having my hours reduced	45%	23%	$\chi^2(1) = 23.143$, $p < .001$
Having my job benefits reduced	37%	35%	NS
Not getting a raise	69%	55%	$\chi^2(1) = 9.734$, $p = .002$
Losing pay if I, or someone in my family, becomes ill	66%	53%	$\chi^2(1) = 8.664$, $p = .003$
Being sent home without pay if child attendance is low or if the program has an unexpected closure	61%	32%	$\chi^2(1) = 38.694$, $p < .001$
Being able to take time off from my job to take care of family issues	56%	49%	NS
Having enough money to pay my family's monthly bills	78%	65%	$\chi^2(1) = 9.879$, $p = .002$
Paying for routine health care costs for my family and me	74%	65%	$\chi^2(1) = 3.80$, $p = .051$
Having a large enough amount of savings for my retirement	81%	81%	NS
Having enough food for my family	54%	35%	$\chi^2(1) = 15.817$, $p < .001$
Paying my housing costs	66%	55%	$\chi^2(1) = 6.397$, $p = .011$
Paying transportation costs to get to work	62%	50%	$\chi^2(1) = 7.356$, $p = .007$
N	393	155	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

TABLE A4.2

Percentage of Teaching Staff Expressing Worry[1], by Public Support[2]

	Teaching Staff Who Receive TANF, Medicaid for Self or Child, Healthy Choice, and/or Food Stamps	Teaching Staff Who do NOT Receive TANF, Medicaid for Self or Child, Healthy Choice, and/or Food Stamps	χ^2	Teaching Staff Who Receive Subsidized Housing and/or WIC	Teaching Staff Who do NOT Receive Subsidized Housing and/or WIC	χ^2
Getting laid off from my job	33%	32%	NS	29%	32%	NS
Having my hours reduced	44%	37%	NS	43%	39%	NS
Having my job benefits reduced	41%	36%	NS	38%	38%	NS
Not getting a raise	70%	61%	$\chi^2(1)=4.572$, $p=.032$	66%	64%	NS
Losing pay if I, or someone in my family, becomes ill	72%	57%	$\chi^2(1) = 11.957$, $p = .001$	81%	60%	$\chi^2(1) = 13.066$, $p < .001$
Being sent home without pay if child attendance is low or if the program has an unexpected closure	61%	49%	$\chi^2(1) = 8.413$, $p = .004$	60%	52%	NS
Being able to take time off from my job to take care of family issues	60%	50%	$\chi^2(1) = 5.335$, $p = .021$	61%	52%	NS
Having enough money to pay my family's monthly bills	84%	67%	$\chi^2(1) = 17.759$, $p = .001$	83%	72%	$\chi^2(1) = 4.446$, $p = .035$
Paying for routine health care costs for my family and me	82%	64%	$\chi^2(1) = 20.081$, $p = .001$	81%	70%	$\chi^2(1) = 4.128$, $p = .042$
Having a large enough amount of savings for my retirement	83%	79%	NS	81%	81%	NS
Having enough food for my family	62%	39%	$\chi^2(1) = 27.448$, $p = .001$	60%	46%	$\chi^2(1) = 5.22$, $p = .022$
Paying my housing costs	71%	57%	$\chi^2(1) = 10.849$, $p = .001$	70%	61%	NS
Paying transportation costs to get to work	68%	51%	$\chi^2(1) = 16.775$, $p < .001$	66%	56%	NS
N	212	345		82	475	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88

TABLE A4.3
Percentage of Teaching Staff Expressing Worry[1], by Education[2]

	Some College or Less	AA Degree or Higher	χ^2
Getting laid off from my job	33%	30%	NS
Having my hours reduced	46%	33%	$\chi^2(1) = 10.429$, $p = .001$
Having my job benefits reduced	39%	35%	NS
Not getting a raise	68%	61%	NS
Losing pay if I, or someone in my family, becomes ill	65%	60%	NS
Being sent home without pay if child attendance is low or if the program has an unexpected closure	60%	45%	$\chi^2(1) = 14.014$, $p < .001$
Being able to take time off from my job to take care of family issues	49%	57%	$\chi^2(1) = 3.678$, $p = .055$
Having enough money to pay my family's monthly bills	75%	71%	NS
Paying for routine health care costs for my family and me	73%	68%	NS
Having a large enough amount of savings for my retirement	80%	81%	NS
Having enough food for my family	53%	42%	$\chi^2(1) = 7.824$, $p = .005$
Paying my housing costs	67%	58%	$\chi^2(1) = 4.412$, $p = .036$
Paying transportation costs to get to work	63%	53%	$\chi^2(1) = 6.262$, $p = .012$
N	314	285	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

TABLE A4.4
Percentage of Teaching Staff Expressing Worry[1], by Parental Status[2]

	At Least One Child <18 Years	No Children or Adult Children Only	χ^2
Getting laid off from my job	35%	29%	NS
Having my hours reduced	46%	35%	$\chi^2(1) = 6.956$, $p = .008$
Having my job benefits reduced	44%	33%	$\chi^2(1) = 7.705$, $p = .006$
Not getting a raise	70%	60%	$\chi^2(1) = 6.975$, $p = .008$
Losing pay if I, or someone in my family, becomes ill	68%	57%	$\chi^2(1) = 6.097$, $p = .014$
Being sent home without pay if child attendance is low or if the program has an unexpected closure	57%	50%	NS
Being able to take time off from my job to take care of family issues	55%	51%	NS
Having enough money to pay my family's monthly bills	79%	69%	$\chi^2(1) = 7.671$, $p = .006$
Paying for routine health care costs for my family and me	73%	68%	NS
Having a large enough amount of savings for my retirement	87%	76%	$\chi^2(1) = 9.314$, $p = .002$
Having enough food for my family	57%	42%	$\chi^2(1) = 13.244$, $p < .001$
Paying my housing costs	69%	58%	$\chi^2(1) = 6.697$, $p = .01$
Paying transportation costs to get to work	65%	54%	$\chi^2(1) = 7.364$, $p = .007$
N	229	343	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

TABLE A4.5

Percentage of Teaching Staff Expressing Worry[1], by Workplace Auspice[2]

	For-Profit	Non-Profit	Public	χ^2
Getting laid off from my job	37%	26%	25%	$\chi^2(2) = 9.265$, $p = .01$ FP>NP
Having my hours reduced	49%	32%	12%	$\chi^2(2) = 32.169$, $p < .001$ FP>NP, Public. NP>Public
Having my job benefits reduced	40%	34%	31%	NS
Not getting a raise	70%	60%	47%	$\chi^2(2) = 13.193$, $p = .001$ FP>NP, Public
Losing pay if I, or someone in my family, becomes ill	69%	54%	49%	$\chi^2(2) = 16.333$, $p < .001$ FP>NP, Public
Being sent home without pay if child attendance is low or if the program has an unexpected closure	65%	41%	22%	$\chi^2(2) = 48.902$, $p < .001$ FP>NP, Public. NP>Public
Being able to take time off from my job to take care of family issues	57%	52%	27%	$\chi^2(2) = 16.121$, $p < .001$ FP>NP, Public. NP>Public
Having enough money to pay my family's monthly bills	79%	67%	53%	$\chi^2(2) = 21.097$, $p < .001$ FP>NP, Public. NP>Public
Paying for routine health care costs for my family and me	79%	64%	45%	$\chi^2(2) = 31.644$, $p < .001$ FP>NP, Public. NP>Public
Having a large enough amount of savings for my retirement	84%	77%	69%	$\chi^2(2) = 7.28$, $p = .026$ FP>Public
Having enough food for my family	57%	41%	18%	$\chi^2(2) = 33.061$, $p < .001$ FP>NP, Public. NP>Public
Paying my housing costs	70%	57%	39%	$\chi^2(2) = 22.592$, $p < .001$ FP>NP, Public. NP>Public
Paying transportation costs to get to work	66%	52%	29%	$\chi^2(2) = 28.833$, $p < .001$ FP>NP, Public. NP>Public
N	347	220	49	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

TABLE A4.6
Percentage of Teaching Staff Expressing Worry[1], by Star Rating Level[2]

	Star 3	Star 4	Star 5	χ^2
Getting laid off from my job	38%	33%	29%	NS
Having my hours reduced	50%	43%	34%	$\chi^2(2) = 10.837$, $p = .004$ Star 3, 4>Star 5
Having my job benefits reduced	43%	41%	32%	$\chi^2(2) = 7.138$, $p = .028$ Star 3, 4>Star 5
Not getting a raise	70%	70%	59%	$\chi^2(2) = 8.331$, $p = .016$ Star 3, 4> Star 5
Losing pay if I, or someone in my family, becomes ill	64%	66%	59%	NS
Being sent home without pay if child attendance is low or if the program has an unexpected closure	64%	60%	44%	$\chi^2(2) = 19.176$, $p < .001$ Star 3, 4>Star 5
Being able to take time off from my job to take care of family issues	53%	52%	54%	NS
Having enough money to pay my family's monthly bills	73%	81%	69%	$\chi^2(2) = 8.525$, $p = .014$ Star 4>Star 5
Paying for routine health care costs for my family and me	72%	80%	64%	$\chi^2(2) = 14.064$, $p = .001$ Star 4>Star 5
Having a large enough amount of savings for my retirement	80%	85%	77%	NS
Having enough food for my family	57%	58%	38%	$\chi^2(2) = 24.413$, $p < .001$ Star 3, 4 > Star 5
Paying my housing costs Star 4>Star 5	66%	68%	58%	$\chi^2(2) = 6.617$, $p = .037$
Paying transportation costs to get to work	61%	65%	52%	$\chi^2(2) = 8.428$, $p = .015$ Star 4>Star 5
N	124	190	302	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

TABLE A4.7
Percentage of Teaching Staff Expressing Worry[1], by Mean Score on Environment Rating Scale (ERS)[2]

	ERS < 5.00	ERS 5.00- 5.99	ERS > 6.00	χ^2
Getting laid off from my job	42%	31%	26%	$\chi^2(2) = 7.762$, $p = .021$ Teaching staff at centers with ERS scores <5.00 worry more than teaching staff with ERS scores between 5.00 and 5.99 and teaching staff at centers rated 6.00 or higher.
Having my hours reduced	53%	41%	21%	$\chi^2(2) = 24.225$, $p < .001$ Teaching staff at centers with ERS scores <5.00 worry more than teaching staff with ERS scores between 5.00 and 5.99 and teaching staff at centers rated 6.00 or higher. Teaching staff at centers with ERS scores between 5.00 and 5.99 worry more than teaching staff at centers rated 6.00 or higher.
Having my job benefits reduced	43%	37%	29%	NS
Not getting a raise	70%	68%	48%	$\chi^2(2) = 16.715$, $p < .001$ Teaching staff at centers with ERS scores less than 5.00 and teaching staff at centers with ERS scores between 5.00 and 5.99 worry more than teaching staff at centers rated 6.00 or higher.
Losing pay if I, or someone in my family, becomes ill	63%	65%	51%	$\chi^2(2) = 7.662$, $p = .022$ Teaching staff at centers with ERS scores less than 5.00 and teaching staff at centers with ERS scores between 5.00 and 5.99 worry more than teaching staff at centers rated 6.00 or higher.
Being sent home without pay if child attendance is low or if the program has an unexpected closure	65%	56%	31%	$\chi^2(2) = 28.109$, $p < .001$ Teaching staff at centers with ERS scores less than 5.00 and teaching or if the program has an staff at centers with ERS scores between 5.00 and 5.99 worry more than teaching staff at centers rated 6.00 or higher.
Being able to take time off from my job to take care of family issues	50%	56%	46%	NS
Having enough money to pay my family's monthly bills	76%	77%	57%	$\chi^2(2) = 17.626$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.
Paying for routine health care costs for my family and me	72%	76%	51%	$\chi^2(2) = 26.402$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.
Having a large enough amount of savings for my retirement	81%	84%	66%	$\chi^2(2) = 17.129$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.

TABLE A4.7 continued

	ERS < 5.00	ERS 5.00- 5.99	ERS > 6.00	χ^2
Having enough food for my family	60%	51%	27%	$\chi^2(2) = 27.409$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.
Paying my housing costs	70%	66%	44%	$\chi^2(2) = 20.279$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.
Paying transportation costs to get to work	65%	61%	38%	$\chi^2(2) = 23.113$, $p < .001$ Teaching staff at centers with ERS scores <5.00 and teaching staff with ERS scores between 5.00 and 5.99 > teaching staff at centers rated 6.00 or higher.
N	116	391	109	

[1]Teaching staff classified as "worried" about a particular item indicated that they somewhat to strongly agreed with a given statement, as represented by a 4 or higher on the Likert Scale.

[2]The sample was drawn from one state's for-profit, non-profit, and public early care and education programs. See endnote #88.

Selected State-Level Estimates of Participation Rates and Costs in Public Support Programs for Childcare Worker Families

Estimates for statewide participation rates of childcare worker families in each of the public programs, and the associated costs, are included in the two tables below. Due to sample size limitations, we have excluded estimates for those states in which the number of year-round childcare workers in the American Community Survey sample fell below 1,000 individuals.

TABLE A5.1
Annual Program Participation Rates in Public Support Programs for Childcare Worker Families, by State

State	Number of Child Care Workers	Participation Rates for Childcare Worker Families				
		EITC	Medicaid (Adults)	Medicaid/ CHIP (Children)	Food Stamps	All Programs
California	87,000	43%	24%	26%	14%	48%
New York	60,000	55%	30%	28%	26%	59%
Texas	51,000	48%	10%	17%	21%	52%
Illinois	30,000	41%	18%	22%	23%	46%
Florida	28,000	50%	9%	12%	21%	52%
Pennsylvania	24,000	35%	15%	18%	15%	41%
Michigan	23,000	40%	16%	17%	28%	46%
Ohio	23,000	34%	11%	13%	15%	37%
Georgia	20,000	48%	11%	16%	22%	52%
Virginia	19,000	40%	6%	12%	13%	40%
New Jersey	18,000	41%	11%	13%	14%	43%
Minnesota	17,000	27%	13%	14%	9%	30%
Maryland	17,000	42%	8%	15%	15%	45%
Washington	17,000	29%	15%	19%	23%	38%

TABLE A5.1 continued

State	Number of Child Care Workers	Participation Rates for Childcare Worker Families				
		EITC	Medicaid (Adults)	Medicaid/ CHIP (Children)	Food Stamps	All Programs
North Carolina	16,000	42%	11%	15%	18%	46%
Massachusetts	15,000	28%	25%	18%	11%	37%
Missouri	14,000	39%	9%	17%	21%	42%
Wisconsin	14,000	30%	17%	18%	17%	36%
Indiana	13,000	35%	8%	16%	14%	38%

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data

TABLE A5.2
Average Annual Public Support Program Costs for Childcare Worker Families, by State (in millions)

State	Number of Child Care Workers	Program Costs for Childcare Worker Families				
		EITC	Medicaid (Adults)	Medicaid/ CHIP (Children)	Food Stamps	All Programs
California	87,000	89.3	81.5	56.9	31.9	274.9
New York	60,000	78.9	169.4	85.8	37.4	380.8
Texas	51,000	61.4	26.8	30.8	25.4	144.8
Illinois	30,000	30.8	35.4	25.9	17.1	109.8
Florida	28,000	34.1	15.8	9.6	12.3	72.6
Pennsylvania	24,000	19.3	24.6	20.9	8.3	73.7
Michigan	23,000	23.6	26.6	14.6	15.3	80.1
Ohio	23,000	20.5	25.7	14.8	9.7	71.9
Georgia	20,000	26.7	13.7	10.7	12.1	63.3
Virginia	19,000	17.9	9.6	10.7	5.5	44.5
New Jersey	18,000	17.8	17.0	11.9	6.4	53.8
Minnesota	17,000	11.7	22.4	16.3	4.0	54.7
Maryland	17,000	16.7	17.6	14.7	5.8	55.0
Washington	17,000	10.9	19.2	11.7	7.6	50.7
North Carolina	16,000	17.0	13.1	9.5	5.9	45.5
Massachusetts	15,000	9.0	26.2	16.0	3.6	55.4
Missouri	14,000	14.3	8.8	10.5	7.6	41.8
Wisconsin	14,000	10.5	12.3	7.6	5.5	36.3
Indiana	13,000	11.7	6.9	10.0	4.9	33.6

SOURCE: Authors' calculations from 2008–2012 March Current Population Survey (CPS), 2007–2011 American Community Survey (ACS), 2011 Occupational Employment Survey (OES), program administrative data

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Chapter 1: Introduction

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[33]Between 1990 and 1999, Arizona, Connecticut, Delaware, Georgia, Kansas, Kentucky, Missouri, Nebraska, New Jersey, New York, Ohio, Tennessee, and Virginia instituted their programs. Since 2000, Alabama, Alaska, Arkansas, Florida, Iowa, Kansas, Louisiana, Massachusetts, Minnesota, Nevada, New Mexico, North Carolina, Pennsylvania, Rhode Island, and Vermont have established programs. Personal communication with Megan Carolan, National Institute for Early Education, August, 29, 2014.

[34]The Obama Administration announced the Preschool Development Grants competition in 2014 to support states to (1) build or enhance a preschool program infrastructure that would enable the delivery of high-quality preschool services to children, and (2) expand high-quality preschool programs in targeted communities that would serve as models for expanding preschool to all four-year-olds from low- and moderate-income families. These grants are intended to lay the groundwork to ensure that more states are ready to participate in the Preschool for All formula grant initiative proposed by the Administration. For more information, see http://www.ed.gov/preschool-development-grants. Selected states will be announced in December 2014.

[35]Beginning with the implementation of Oklahoma's Reaching for the Stars in 1998, quality rating and improvement systems (QRIS) have rapidly emerged as a leading strategy for improving the quality of early care and education programs. Austin, L. J. E., Whitebook, M., Connors, M., & Darrah, R. (2011). *Staff preparation, reward, and support: Are quality rating and improvement systems addressing all of the key ingredients necessary for change?* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2011/12/CSCCEQRISPolicyBrief_2011.pdf. For current information about QRIS, see http://qrisnetwork.org/resource/2012/qris-statute-and-regulations.

[36]Early learning standards/guidelines outline expectations for children's development and learning prior to entering kindergarten (some states include infants and toddlers, while others do not). In 1999, only 10 states had early learning standards (retrieved from http://ecrp.uiuc.edu/v9n1/little.html). Today, all 50 states and the District of Columbia have developed early learning standards (retrieved from http://www.childtrends.org/wp-content/uploads/2013/05/2010-14-SchoolReadinessStates.pdf). As of 2010, 31 states had infant and toddler early learning guidelines (retrieved from http://www.zerotothree.org/public-policy/webinars-conference-calls/it-elg-implementation-toolkit-introduction-508-compliant.pdf).

[37]National Women's Law Center. (2000). *Be all that we can be: Lessons from the military for improving our nation's child care system.* Washington, DC: National Women's Law Center. Retrieved from http://www.nwlc.org/sites/default/files/pdfs/military_0.pdf; National Women's Law Center. (2005). *Be all that we can be: Lessons from the military for improving our nation's child care system, 2004 Follow-Up.* Washington, DC: National Women's Law Center. Retrieved from http://www.nwlc.org/sites/default/files/pdfs/BeAllThatWeCanBe_2004FollowUp.pdf; and Zellman, G., & Johansen, A. (1998). *The Armed Services' response to the Military Child Care Act.* Arlington, VA: Rand Corporation. Retrieved from http://www.rand.org/pubs/research_briefs/RB7521.html.

[38]*The National Education Goals Reports 1991-1999.* (2012). Retrieved from http://federaleducationpolicy.wordpress.com/2012/02/24/the-national-education-goals-reports-1991-1999/.

[39]Lombardi, J. (2003). *Time to care: Redesigning child care to promote education, support families, and build communities.* Philadelphia, PA: Temple University Press.

[40]H.R. 4150, 101st Congress, Head Start Expansion and Quality Improvement Act of 1990. (1990). pp. 285-286.

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[42]Lombardi, J. (2003). *Time to care: Redesigning child care to promote education, support families, and build communities.* Philadelphia, PA: Temple University Press, p. 189.

[43]Whitebook, M., & Eichberg, A. (n.d). *Finding a better way: Defining and assessing public policies to improve child care workforce compensation.* Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2001/01/betterway.pdf. A list of current states that currently support the T.E.A.C.H. Early Childhood® scholarship and wage supplements can be found in endnote #150. Also, see http://www.childcareservices.org/ps/teach_ta_qac/.

[44]Bowman, B. T., Donovan, M. S., & Burns, M. S. (2001). *Eager to learn: Educating our preschoolers.* Washington, DC: National Academy Press.

[45]Public Law 110-134, Improving Head Start for School Readiness Act of 2007, 42 USC 9801 et seq. (Dec. 12, 2007). Retrieved from https://eclkc.ohs.acf.hhs.gov/hslc/standards/law/hs_act_2007.pdf.

[46]Barnett, W. S., Carolan, M. E., Squires, J. H., & Clarke Brown, K. (2013). *The state of preschool 2013: State preschool yearbook.* New Brunswick, NJ: The National Institute for Early Education Research, Rutgers Graduate School of Education, p. 3.

[47]For more information about Race to the Top- Early Learning Challenge, see http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/index.html. For more information about the Early Head Start Expansion & Child Care Partnership Grants, see http://eclkc.ohs.acf.hhs.gov/hslc/grants/ehs-ccp. For more information about the Preschool Development Grants Competition, see http://www.ed.gov/preschool-development-grants.

Chapter 3: Then and Now, 1989-2014: Wages, Education, and Turnover Among Early Childhood Teachers

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[50]Childcare Workers (code 39-9011) are defined as those who "attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding bathing, and overseeing play." Preschool Teachers, Except Special Education, (code 25-2011) are defined as those who "instruct preschool children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility." The analyses in this section exclude Childcare Workers who work in private households.

[51]Bureau of Labor Statistics. (1997, 2013). *Occupational Employment Statistics Survey.* Bureau of Labor Statistics, U.S. Department of Labor. Retrieved from http://stats.bls.gov/oes/tables.htm.

[52]Laughlin, L. (2010). *Who's minding the kids? Child care arrangements: Spring 2005/Summer 2006.* Current Population Report, pp. 70-121. Washington, DC: U.S. Census Bureau; Laughlin, L. (2013). *Who's minding the kids? Child care arrangements: Spring 2011.* Current Population Report, pp. 70-135. Washington, DC: U.S. Census Bureau; and Smith, K. (2002). *Who's minding the kids? Child care arrangements: Spring 1997.* Current Population Reports, pp. 70-86. Washington, DC: U.S. Census Bureau.

[53]National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE).* OPRE Report #2-13-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[54]Bureau of Labor Statistics. (2013). *Occupational Employment Statistics Survey.* Bureau of Labor Statistics, U.S. Department of Labor. Retrieved from http://stats.bls.gov/oes/.

[55]National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE).* OPRE Report #2-13-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[56]In 2012, the average annual salary for all workers with a bachelor's degree was $60,159, or $28.92 per hour. United States Census Bureau. (2013). *CPS Historical Time Series Tables: Mean Earnings of Workers 18 Years and Over, by Educational Attainment, Race, Hispanic Origin, and Sex: 1975 to 2012, Table A-3.* Retrieved from http://www.census.gov/hhes/socdemo/education/data/cps/historical/.

[57]In 2013, the mean annual salary of center-based childcare workers was $21,490, hovering only slightly above the Federal Poverty Level of $18,769 for a family of three. DeNavas-Walt, C., & Proctor, B. (2014). *Income and poverty in the United States: 2013.* Current Population Reports, pp. 60-249. Washington, DC: U.S. Census Bureau.

[58]These analyses were supported by the Office of Planning, Research, and Evaluation, Administration for Children and Families, and U.S. Department of Health and Human Services.

[59]Rene Bautista, Survey Methodologist, and Kanru Xia, Survey Statistician, both of NORC at the University of Chicago provided extensive data analysis support.

[60]Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 1.* Princeton, NJ: Mathematica Policy Research, Inc.; and Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farquhar, E. (1991). A profile of child care settings: Early education and care in 1990, Vol. 2 (Appendices). Princeton, NJ: Mathematica Policy Research, Inc.

[61]Coelen, C., Glantz, F., & Calore, D. (1979). *Day care centers in the U.S.: A national profile 1976-1977.* Cambridge, MA: Abt Associates.

[62]National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE).* OPRE Report #2-13-38. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

[63]The results for wages and educational levels refer to lead teachers and teachers; results for turnover/departure rates refer to lead teachers and teachers in the Profiles survey and to "all staff working directly with children" in the NSECE. Notes that accompany the tables and figures also indicate specifics about the sample.

[64]A detailed discussion of the Profiles methodology can be found in Kisker, E. E., Hofferth, S. L., Phillips, D. A., & Farguhar, E. (1991). *A profile of child care settings: Early education and care in 1990, Vol. 2 (Appendices).* Princeton, NJ: Mathematica Policy Research, Inc. For a more detailed discussion of NSECE methodology, see National Survey of Early Care and Education Project Team. (2013). *Number and characteristics of early care and education (ECE) teachers and caregivers: Initial findings from the National Survey of Early Care and Education (NSECE).* OPRE Report #2-13-38. Retrieved from https://www.acf.hhs.gov/programs/opre/resource/national-survey-of-early-care-and-education-summary-of-data-collection-and.

[65]Centers were initially divided by whether they were for-profit or non-profit status. The NSECE also included a response category of "run by a government agency". For-profit programs were further divided as either "independently owned and operated" or as part of a chain or, in the case of the NSECE, part of a franchise. We combined the NSECE centers that identified as part of a chain or Franchise (all categorized as chains). Non-profit programs were divided into those operating independently and those sponsored by another organization. These sponsoring organizations were further divided into the following categories in both surveys: (a) Public School/Board of Education, (c) Private Non-Religious Schools, (d) Church or Religious Group (including Private Religious Schools), (e) Non-Government Community Organization, (f), College or University, (g) Social Service Organization or Agency, (h) State or Local Government, (i) Private Company or Individual Employer, and (j) Other. The NSECE included "Federal Government or Military" as an additional category. Head Start centers were identified in different ways in the two surveys. The Profiles survey included Head Start as an option on the list of sponsoring organization. The NSECE did not; rather, this survey asked whether any children in the program were funded by dollars from Head Start. All NSECE centers that included a child funded by Head Start were classified as Head Start centers, regardless of the prior responses to the auspice and sponsorship questions.

[66]Ibid.

[67]These data do not allow us to interpret the 8% decline in bachelor's degree teachers in school-sponsored pre-K but this may be due to the expansion of mixed delivery pre-K to states that do not require teachers to have a bachelor's degree. See Barnett, W. S., Carolan, M. E., Squires, J. H., & Clarke Brown, K. (2013). *The state of preschool 2013: State preschool yearbook.* New Brunswick, NJ: The National Institute for Early Education Research, Rutgers Graduate School of Education. Retrieved from http://nieer.org/publications/state-preschool-2013. However, school-sponsored pre-K teachers comprise less than ten percent of all early childhood teachers. Teachers employed in independent for-profit programs constitute 27 percent of all early childhood teachers, and thus the decline in degree levels among these teachers accounts for most of the overall decline.

[68]Coelen, C., Glantz, R., & Calore, D. (1978). *Day care centers in the U.S.: A national profile, 1976-1977.* Cambridge, MA: Abt Associates.

[69]Between 2000 and 2014 for all nonfarm occupations, total separations declined approximately ten percent and quits declined by approximately 7 percent. U.S. Bureau of Labor Statistics. (2014). *Job openings and labor turnover survey.* Retrieved from http://www.bls.gov/jlt/.

[70]Elizabeth Hoffmann, Senior Program Analyst at the Office of Head Start, provided essential assistance with this section of the report.

[71]The findings and conclusions presented in this section of the report are those of the authors alone.

[72]2013 is the most recent year for which data are available.

[73]Whitebook, M. (1995). *Salary improvements in Head Start: Lessons for the early care and education field.* Washington, DC: National Center for the Early Childhood Work Force.

[74]Child Trends DataBank. (2014). Indicators on children and youth: Head Start. Washington, DC: Child Trends; and Walker, C. (2014). *Head Start participants, programs, families, and staff in 2013.* Washington, DC: Center for Law and Social Policy.

[75]This section could not have been written without the generous assistance of Barbara Thompson, Director, Office of Family Policy/Children and Youth/Special Needs, Military Community and Family Policy, Department of Defense and Carolyn Stevens, Senior Program Analyst, Office of the Deputy Assistant Secretary of Defense and of M.A. Lucas, Executive Director, Early Care and Education Consortium.

[76]Floyd, L., & Phillips, D. A. (2013). Child care and other support programs. *The Future of Children, 23(2),* 79-97.

[77]Carnegie Task Force on Meeting the Needs of Young Children. (1994). *Starting points: Meeting the needs of our youngest children.* New York, NY: Carnegie Corporation; National Women's Law Center. (2000). *Be all that you can be: Lessons from the military for improving our nation's child care system.* Washington, DC: National Women's Law Center; Shonkoff, J. P. & Phillips, D. A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development.* Washington, DC: National Academies Press; and Zellman, G. et al., (2012). *Examining the effects of accreditation on Military Child Development Center operations and outcomes.* Santa Monica, CA: RAND Corporation.

[78]See http://www.cpms.osd.mil/ and http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/GS_h.pdf.

[79]This is an estimated hourly wage; staff were not on the General Schedule salary system prior to 1990.

[80]Personal communication, Barbara Thompson and Carolyn Stevens, Sept. 15, 2014. See also http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/GS_h.pdf for 2014 salary structure and http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/#url=Earlier-Pay-Tables for archived salary structure information. These data refer to Program Assistants who provide direct developmental care and instruction to children. They reflect "base pay," and do not include any locality pay for staff in geographic areas with higher standards of living (implemented as part of the Military Child Care Act).

[81]Wage ranges vary by cost of living in various areas of the country. Teachers may move to other GS levels with specialized training and as a manager/director, up to GS-11. See http://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/1700/general-education-and-training-series-1701/ or http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/GS_h.pdf.

[82]Personal Communication, Barbara Thompson, September 4, 2014.

[83]Floyd, L., & Phillips, D. A. (2013). Child care and other support programs. *The Future of Children: Military Children and Families, 23(2),* 79-98; and National Women's Law Center. (2000). *Be all that you can be: Lessons from the military for improving our nation's child care system.* Washington, DC: National Women's Law Center.

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[85]De Schipper, E., Riksen-Walraven, J., Geurts, S., & De Weerth, C. (2009). Cortisol levels of caregivers in child care centers as related to the quality of their caregiving. *Early Childhood Research Quarterly, 24(1),* 55-63; Hamre, B., & Pianta, R. (2004). Self-reported depression in nonfamilial caregivers: Prevalence and associations with caregiver behavior in child care settings. *Early Childhood Research Quarterly, 19*; and Whitaker, R. C., Becker, B. D., Herman, A. N., & Gooze, R. A. (2013). The physical and mental health of Head Start staff: The Pennsylvania Head Start Staff Wellness Survey, 2012. *Preventing Chronic Disease, 10(181).*

[86]De Schipper, E. J., Riksen-Walraven, J. M., Geurts, S. A. E., & de Weerth, C. (2009). Cortisol levels of caregivers in child care centers as related to the quality of their caregiving. *Early Childhood Research Quarterly, 24(1),* 55–63; Groeneveld, M. G., Vermeer, H. J., van IJzendoorn, M. H., & Linting, M. (2012a). Stress, cortisol and well-being of caregivers and children in home-based child care: A case for differential susceptibility. *Child: Care, Health and Development, 38(2),* 251-260. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/21166835; Groeneveld, M. G., Vermeer, H. J., van IJzendoorn, M. H., & Linting, M. (2012b). Caregivers' cortisol levels and perceived stress in home-based and center-based childcare. *Early Childhood Research Quarterly, 27(1),* 166-175. Retrieved from http://www.sciencedirect.com/science/article/pii/S0885200611000378; and Jeon, L., Buettner, C. K. & Snyder, A. R. (2014). Pathways from teacher depression and child-care quality to child behavioral problems. *Journal of Consulting and Clinical Psychology,* 82, 225-235.

[87]Hamre, B. K., & Pianta, R. C. (2004). Self-reported depression in nonfamilial caregivers: Prevalence and associations with caregiver behavior in child-care settings. *Early Childhood Research Quarterly, 19,* 297–318; Institute of Medicine and National Research Council. (2012). *The early childhood care and education workforce: Challenges and opportunities: A workshop report.* Washington, DC: National Academies Press; Jeon, L., Buettner, C. K., & Snyder, A. R. (2014). Pathways from teacher depression and child-care quality to child behavioral problems. *Journal of Consulting and Clinical Psychology, 82,* 225-235; Li-Grining, C., Raver, C. C., Champion, K., Sardin, L., Metzger, M. W. & Jones, S. M. (2010). Understanding and improving classroom emotional climate in the "real world": The role of teachers' psychosocial stressors. *Early Education and Development, 21(1),* 65-94; and Raver, C. C., Blair, C., & Li-Grining, C. P. (in press). Extending models of emotional self-regulation to classroom settings: Implications for professional development. In C. Howes, B.K. Hamre, & R.C. Pianta (Eds.), *Effective early childhood professional development: Improving teacher practice and child outcomes,* pp. 111-130. NY: Brookes.

[88]Whitebook, M., Sakai, L., & Ryan, S. (2014). *Economic insecurity and early childhood teaching: The relationship between teacher worry and program economic policies, auspices and quality ratings.* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley (Manuscript in preparation).

[89]Facilities in this state can receive one to five stars. A rating of one star means that a child care program meets state minimum licensing standards for child care. Programs that choose to voluntarily meet higher standards can apply for a two- to five-star license. Star 1 and Star 2 programs were excluded from the sampling strategy, as they are not required to be observed by a trained assessor to receive their rating. Star 3 programs are also not required to be observed, but many Star 3 programs elect to be assessed, and thus a sufficient number of Star 3 programs could be included in the sample.

[90]The Environment Rating Scales (Harms, Clifford, & Cryer, 2005; Harms, Cryer, & Clifford, 2006; Harms, Vineberg Jacobs, & Romano White, 1995) is an observational instrument routinely used to observe and assess early childhood program quality. These instruments provide information about appropriate caregiving and activities that occur within a particular classroom. Infant-toddler classrooms (birth to 2 ½ years of age) are rated using the Infant/Toddler Environment Rating Scale-Revised (39 items); classrooms including preschool-kindergarten children are assessed using the Early Childhood Environment Rating Scale-Revised (43 items); and the School-Age Care Environment Rating Scale (49 items, plus 6 items for programs enrolling children with special needs) is used to assess before- and after-group-care settings for school-age children 5 to 12 years of age. For each of these measures, items are scored on a 1-7 scale. Classroom scores are calculated as the mean of all items, with a score of 3.0 considered minimally acceptable, 5.0 considered good, and 7.0 considered excellent quality.

[91]Chronbach's alpha for the "worry" subscale =.918. The subscale is drawn the *Supporting Environmental Quality Underlying Adult Learning (SEQUAL)* measure (Unpublished document, Whitebook, M., & Ryan, S. (2013). *Supporting environmental quality underlying adult learning [SEQUAL].* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley). The SEQUAL assesses how well the workplace supports teaching staff in learning and continuing to develop their knowledge and skills on the job. It is administered directly to teachers and assistant teachers in centers or school-based programs. SEQUAL assesses five overarching domains of the workplace that support professional growth and high-quality care and instruction. These include: 1) Teaching Supports; 2) Learning Community; 3) Job Crafting; 4) Adult Well Being; and 5) Program Leadership. For more information, see: http://www.irle.berkeley.edu/cscce/2014/sequal/.

[92]The mean and range of non-standardized worry scores are reported in the findings section of the document. In order to compare scores for different groups of teaching staff, however, scores were standardized twice, first at the item level and next for the composite score. Non-independence of participants was controlled for by holding the center response rate (percentages of teaching staff in each center who completed the survey) constant when examining mean differences in "worry" scores among teaching staff working in different types of centers. The standardized mean worry score for the sample was M=0 (SD=1; Range=-2.7-1.85). Higher scores indicate higher economic insecurity/worry.

[93]ERS scores for each participating program were provided by the organization that conducts the assessments for the state. On average, visits to centers where teaching staff were given the opportunity to complete the questionnaire occurred within 2.6 months (range - 0.657-5.55) of the observation.

[94]$F(3,433) = 9.18, p < .001$.

[95]Among those accessing some form of public financial assistance, more than one-half reported accessing Medicaid coverage for their children (61.0 percent) and SNAP (Supplemental Nutrition Assistance Program) (58.3 percent). More than one-quarter (29.2 percent) reported accessing Medicare coverage for themselves, or WIC (Women, Infants and Children Food and Nutrition Service) (28.1 percent). Less than one-quarter of teaching staff received state subsidized health coverage (17.6 percent) or subsidized child care (16.7 percent) for their child, and only four percent received TANF.

[96]$\chi^2(1) = 75.19, p < .001$.

[97]$F(1,593) = 3.813, p = .05$. Because a higher percentage of teaching staff with an associate degree or higher worked in public and non-profit programs than in for-profit programs, the effect or program auspice was accounted for in examining differences in "worry scores" by education.

[98]On average, the earnings premium for a four-year degree alone (excluding advanced degree holders) across all occupations is about 60 percent, although this premium has remained flat over the last decade. The choice of a college major, however, has a potentially large effect on the value of the four-year degree. Education majors have among the lowest premiums, at approximately 40 percent, compared to engineering majors, who have a four-year premium at 125 percent. As detailed in the "Then and Now" section of this report, ECE teachers have a smaller earnings premium than other educators. James, J. (2012). The college wage premium. *Federal Reserve Bank of Cleveland Economic Commentary.* Retrieved from http://www.clevelandfed.org/research/commentary/2012/2012-10.cfm. See also Carnevale, A., Strohl, J., & Melton, M. (2011). *What's it worth? The economic value of college majors.* Washington, DC: Center on Education and the Workforce, Georgetown University; Barnett, W. S., & Escobar, C. M. (1987). *The Economics of Early Educational Intervention: A Review.* Review of Educational Research. Winter 1987 vol. 57 no. 4 pp. 387-414. Retrieved from: http://rer.sagepub.com/content/57/4/387.abstract

[99]$t(570) = -3.754, p < .001$.

[100]To account for non-independence of teaching staff, we analyzed whether response rates for teaching staff varied by program characteristics, and found that teaching staff participation rates varied by star level and program auspices. Therefore, the response rate was controlled for when examining differences in "worry scores" by star level and program auspices.

[101]$F(2,612) = 23.686, p < .001$.

[102]$F(2,612) = 23.686, p < .001$.

[103]$\chi^2(6) = 75.65, p < .001$). Teachers employed at Star 5 programs were more likely to have higher levels of education than teaching staff employed at Star 3 or Star 4 programs. For example, 47 percent of teachers in Star 5 programs had bachelor's degrees or higher, compared to 20 percent in Star 3, and 16 percent in Star 4 programs. There were no significant differences by star level for assistant teachers.

[104]$F(2,542) = 10.254, p < .01$. Teachers working at Star 5 programs earned more per hour, on average, than teachers employed at Star 3 or 4 programs, and teachers employed at Star 4 programs earned more, on average, than those at Star 3 programs. Teachers in Star 5 centers earned an average of $13.79 per hour, compared to teachers employed in Star 4 programs ($10.06 per hour) or Star 3 programs ($9.24 per hour).

[105]$F(2,613) = 273.066, p < .001$. Star 5>Star 3, Star 4. Star 4>Star 3. Mean ERS ratings: Star 3 = 4.73, Star 4 = 5.35, and Star 5 = 5.75.

[106]$F(2,608) = 3.174, p = .043$. Because a higher percentage of teaching staff in our sample worked in public and non-profit programs rated as Star 5 than in for-profit programs rated as Star 5, the effect of program auspice was accounted for in examining differences in "worry scores" by star level.

[107]$F(2,613) = 20.752, p < .001$.

[108]*Economic Security Across the American States (ESI Update: Economic Security Continues to Improve in 2012; Big Strains Remain).* Retrieved from http://www.economicsecurityindex.org/upload/media/esiupdate_11_16_13.pdf. *Living Below the Line: Economic Insecurity and America's Families.* Retrieved from http://www.wowonline.org/wp-content/uploads/2013/09/Living-Below-the-Line-Economic-Insecurity-and-Americas-Families-Fall-2013.pdf.

[109]McMahon, S., & Horning, J. (2013). *Living below the line: Economic insecurity and America's families.* Wider Opportunities for Women. Retrieved from http://www.wowonline.org/wp-content/uploads/2013/09/Living-Below-the-Line-Economic-Insecurity-and-Americas-Families-Fall-2013.pdf. This analysis relies on the Basic Economic Security Tables (TM symbol) (BEST Index), developed by Wider Opportunities for Women and The Center for Social Development at Washington University, and compares annual incomes required for basic economic security to data from the U.S. Census Bureau American Community Survey PUMS data set for 2007-2011.

[110]Ibid.

[111]Gundersen, C., & Ziliak, J.P. (2014). *Childhood food insecurity in the U.S.: Trends, causes, and policy options.* Retrieved from http://www.futureofchildren.org/futureofchildren/publications/docs/ResearchReport-Fall2014.pdf.

[112]Hamre, B. K., & Pianta, R. C. (2004). Self-reported depression in nonfamilial caregivers: Prevalence and associations with caregiver behavior in child-care settings. *Early Childhood Research Quarterly, 19,* 297-318; Li-Grining, C., Raver, C.C., Champion, K., Sardin, L., Metzger, M.W. & Jones, S.M. (2010). Understanding and improving classroom emotional climate in the "real world": The role of teachers' psychosocial stressors. *Early Education and Development, 21(1),* 65-94; and Jeon, L., Buettner, C. K., & Snyder, A. R. (2014). Pathways from teacher depression and child-care quality to child behavioral problems. *Journal of Consulting and Clinical Psychology, 82,* 225-235.

[113]Whitebook, M., Sakai, L., Kipnis, F., & Almaraz, M. (2011). *Learning together: A study of six B.A. completion cohort programs in early care and education.* Year 3 report. Berkeley, CA: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California, Berkeley; and Whitebook, M., Schaack, D., Kipnis, F., Austin, L., & Sakai, L. (2013). *From aspiration to attainment: Practices that support educational success, Los Angeles' Universal Preschool Workforce Initiative.* Berkeley, CA: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California, Berkeley.

[114]Whitebook, M. (2014). *Building a skilled teacher workforce: Shared and divergent challenges in early care and education and in grades K-12.* Seattle, WA: The Bill and Melinda Gates Foundation.

[115]Bartik, T., Gormley, W. T., & Adelstein, S. (2012). Earnings benefits of Tulsa's Pre-K program for different income groups. *Economics of Education Review, 31,* 1143-61; Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. *Review of Educational Research, 73,* 125-230; Heckman, J. J., & Masterov, D. V. (2007). The productivity argument for investing in young children. *Review of Agricultural Economics, 29(3),* 446-493; Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool program. *Journal of Public Economics, 94,* 114-128; Karoly, L., & Bigelow, J. (2005). The economics of investing in universal preschool education in California. Santa Monica, CA: RAND Corporation; Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood interventions: Proven results, future promise.* Santa Monica, CA: RAND Corporation; Krueger, A. B. (1999). Experimental estimates of education production functions. *The Quarterly Journal of Economics,* 114, 497-532; Lynch, R. (2004). *Exceptional returns: Economic, fiscal and social benefits of investment in early childhood and development.* Washington, DC: Economic Policy Institute. Retrieved from http://www.epi.org/publications/entry/books_exceptional_returns/; Rolnick, A., & Grunewald, R. (2003). Early childhood development: Economic development with a high public return. *Fedgazette.* Minneapolis, MN: Federal Reserve Bank of Minneapolis; Southern Education Foundation (2011). *The promise of Georgia Pre-K.* Atlanta, GA: Author; and Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., Ludwig, J., Magnuson, K. A., Phillips, D., & Zaslow, M. J. (2013). *Investing in our future: The evidence base on preschool education.* Washington, DC: Society for Research in Child Development and the Foundation for Child Development.

[116]The national Worthy Wage Campaign, a multi-year grassroots organizing effort led by early childhood teachers and providers, was launched in the fall of 1991. For more information on the Worthy Wage Campaign and the compensation movement that preceded it, see Whitebook, M. (2002). *Working for worthy wages: The Child Care Compensation Movement, 1970-2001.* Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2010/07/worthywages.pdf.

[117]Nearly three-quarters of enrollments in major public support programs are from working families. Allegretto, S., Doussard, M., Graham-Squire, D., Jacobs, K., Thompson, D., & Thompson, J. (2013). *Fast food, poverty wages: The public cost of low-wage jobs in the fast-food industry.* Berkeley, CA: University of California Berkeley Center for Labor Research and Education.

[118]Allegretto, S., Doussard, M., Graham-Squire, D., Jacobs, K., Thompson, D., & Thompson, J. (2013). *Fast food, poverty wages: The public cost of low-wage jobs in the fast-food industry.* Berkeley, CA: University of California Berkeley Center for Labor Research and Education; and Allegretto, S., Jacobs, K., Graham-Squire, D., Scott, M. E. (2014). *The public cost of low-wage jobs in the banking industry.* Berkeley, CA: University of California, Berkeley, Center for Labor Research and Education.

[119]Ideally, this analysis would include preschool teachers and their families in addition to childcare workers, since preschool teachers, as defined by the U.S. Bureau of the Census, constitute a significant portion of the early care and education workforce. Unfortunately, the Current Population Survey (CPS) used for this analysis does not allow for disaggregation of preschool and kindergarten teacher characteristics, including earnings, which differ significantly between the two groups. For this reason, we could not determine the utilization rates for public support programs and tax policies and their attendant costs among preschool teachers and their families. For more information about the limitations of extant data collected by the U.S. Department and Labor and the U.S. Census Bureau on those who care for and educate young children, see http://www.srcd.org/sites/default/files/documents/spr_261_final.pdf.

[120]We limited the list of supports to large nationwide programs that restrict benefits to families with low incomes. Our analysis covers programs used by families with active jobseekers and workers, even when the availability of those benefits does not depend on a family's working status. We analyzed only programs that function as income supplements, omitting job training, educational, and other programs that indirectly assist low-income families.

[121]SNAP is commonly referred to as food stamps; TANF is sometimes described as basic household income assistance.

[122]The best source of occupational totals is the U.S. Bureau of Labor Statistics, Occupational Employment Survey (OES), which provides point-in-time estimates of non-self-employed workers for all occupations. The 2011 OES estimate of childcare workers is 624,520. However, this figure understates the number of individuals who identify as childcare workers in the U.S. Census, because it excludes the self-employed and also individuals who were not currently working at one point in time when the survey was conducted, but did work during the previous year. To correct for these underestimates, we relied on the U.S. Bureau of Census Current Population Survey (see endnote 125), which estimates that 31.26 percent of childcare workers were self-employed and that 90.08 percent of individuals who identified as childcare workers were currently employed. To increase the estimate to include self-employed workers, we conducted the following calculation: 624,520/(1-0.3126) = 908,525. To increase the estimate to include workers who worked in the previous year, we then conducted the following calculation: 908,525/0.9008 = 1,008,576. When we apply the restrictions for the four industries, our estimated childcare worker population is 906,000.

[123]Note that the data used for this investigation do not include information about the characteristics of the children served by these childcare workers.

[124]Note that the annual benefits paid did not include costs of program administration and oversight.

[125]*Current Population Survey, March Supplement 2008-2012.* Microdata downloaded from http://www.nber.org/data/cps_index.html.

[126]*Occupational Employment Survey (OES): 2007–2011* American Community Survey (ACS). Microdata from the American Community Survey were obtained from IPUMS.org. For more information, see Ruggles, S., Alexander, J., Genadek, K., Goeken, R., Schroeder, M., & Sobek, M. (2010). *Integrated Public Use Microdata Series: Version 5.0.*

[127]Due to sample size limitations, we excluded estimates for states in which the number of year-round childcare workers in the ACS sample fell below 1,000 individuals.

[128]Our method for linking these costs to a worker's employment status requires both national-level program enrollments and administrative data, and individual-level survey data on the benefits consumption of workers. As a result, our estimates necessarily exclude some federal and state and local programs for which the required data were unavailable, such as state earned income credit programs and local services to the poor.

[129]Kipnis, F., & Whitebook, M. (2011). *Workforce information: A critical component of coordinated state early care and education data systems.* Berkeley, CA: Center for the Study of Child Care Employment, Institute for Research on Labor and Employment, University of California, Berkeley. Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2011/04/CSCCEPolicyBrief_WorkforceInformation_March2011.pdf.

[130]In both K-12 and ECE, a great deal of time and money is spent on such turnover-related activities as recruitment, hiring, administrative processing, professional development, and separation planning. Estimates of the annual cost of turnover in K-12 education range from four to seven billion dollars, the latter amount reflecting not just costs to schools and districts but lost state and federal investments in teacher preparation and development. Alliance for Excellent Education. (2005). *Teacher attrition: A costly loss to the nation and to the states.* Washington, DC: Alliance for Excellent Education; and National Commission on Teaching and America's Future. (2007). *The high cost of teacher turnover: Policy brief.* Washington, DC: National Commission on Teaching and America's Future. At the school level, the National Commission on Teaching and America's Future estimates the average national cost per individual teacher departure and replacement in 2014 at $4,090 for rural and $9,540 for urban schools. National Commission on Teaching and America's Future. (2007). Retrieved from http://nctaf.org/teacher-turnover-cost-calculator/. Those turnover cost estimates were originally developed in 2007; the costs reported in this paper have been updated using the American Institute for Economic Research's Cost of Living Calculator (retrieved from https://www.aier.org/cost-living-calculator). The 2007 cost per teacher turnover was $3,600 in rural communities and $8,400 in urban communities.

[131]Gormley Jr., W. T., & Gayer, T. (2005). Promoting school readiness in Oklahoma: An evaluation of Tulsa's pre-k program. *The Journal of Human Resources, 40(3),* 533-558.

Chapter 6: Policy Efforts to Improve Early Childhood Teaching Jobs

[132]Proposed provisions for reauthorization of the CCDBG would allow states to use other methods of determining reimbursement rates; as of this writing, the legislation is pending in Congress.

[133]Lombardi, J. (2003). *Time to care: Redesigning child care to promote education, support families, and build communities.* Philadelphia, PA: Temple University Press.

[134]Ibid.

[135]FY 2013-2014 CCDF Plan Reprint. (2012). Retrieved from https://www.acf.hhs.gov/programs/occ/resource/fy-2014-2015-ccdf-plan-preprint.

[136]Cubbage, A. S., & Lombardi, J. (2004). Head Start in the 90s: Striving for quality through a decade of improvement. In E. Zigler & S. J. Styfco (Eds.), *The Head Start debates.* Baltimore, MD: P.H. Brookes; H.R. 4150-101st Congress: Head Start Expansion and Quality Improvement Act of 1990 (1990), pp. 285-286; and Whitebook, M. (1995). *Salary improvements in Head Start: Lesson for the early care and education field.* Washington, DC: Center for the Child Care Workforce.

[137]Improving Head Start for School Readiness Act of 2007, Public Law 110-134, 42 USC 9801 et seq. (Dec. 12, 2007). Retrieved from https://eclkc.ohs.acf.hhs.gov/hslc/standards/law/hs_act_2007.pdf. The quality set-aside remained at the same level in 2009 as in 2007. New language about compensation was added, however, which appears to hold Head Start salaries at the going rate for other early childhood teachers in the community. In areas with school-sponsored public pre-K programs paying salaries comparable to Grades K-12, there appears to be considerable room to raise salaries, but such programs are not available in all communities. See Section 653 of the 2007 Act.

[138]National Women's Law Center. (2000). *Be all that we can be: Lessons from the military for improving our nation's child care system.* Washington, DC: National Women's Law Center. Retrieved from http://www.nwlc.org/sites/default/files/pdfs/military_0.pdf; National Women's Law Center. (2005). *Be all that we can be: Lessons from the military for improving our nation's child care system, 2004 Follow-Up.* Washington, DC: National Women's Law Center. Retrieved from http://www.nwlc.org/sites/default/files/pdfs/BeAllThatWeCanBe_2004FollowUp.pdf; and Zellman, G. & Johansen, A. (1998). The Armed Services' response to the Military Child Care Act. Arlington, VA: Rand Corporation. Retrieved from http://www.rand.org/pubs/research_briefs/RB7521.html.

[139]Race to the Top - Early Learning Challenge. Retrieved from http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/index.html. The U.S. Department of Education and the U.S. Department of Health and Human Services are jointly administering RTT-ELC; the purpose of these grants is to improve the quality of early learning and development and to close the achievement gap for children with high needs in the states. States plans to develop a Workforce Knowledge and Competency Framework and a progression of credentials, and to support early childhood educators in improving their knowledge, skills and abilities, were used to determine applicant scores. Salary supplements and other forms of compensation are allowable expenses, but were not used to determine scores. Retrieved from http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/applicant.html.

[140]For more information on Early Head Start Expansion & Child Care Partnership Grants, see http://eclkc.ohs.acf.hhs.gov/hslc/grants/ehs-ccp.

[141]The Delaware Association for the Education of Young Children (DAEYC) administers the Compensation, Retention, and Education (CORE) Awards in collaboration with the Delaware Office of Early Learning (OEL). OEL funds the CORE Awards through its RTT-ELC grant. The purpose of CORE is to provide financial incentives to reward, attract and retain highly qualified educators in programs participating in Delaware Stars for Early Success, the state QRIS. CORE Awards are targeted to programs serving large populations of high-need children in eight priority areas across the state. The initiative offers three types of awards to eligible individuals and/or programs: Educational Attainment, Retention, and Recruitment. Retrieved from http://www.daeyc.org/ for more information.

[142]This county-based QRIS in California uses an eight-element, five-tier QRIS involving approximately 215 preschool sites, with reimbursement to these sites as well as professional development services and workforce stipends for supervisors, teachers, and data specialists. There are approximately 650 classrooms and 15,000 children served at these sites. The vast majority of the children are three or four years old, and a pilot program for infants and toddlers is currently being conducted. Categories for teachers include acquisition of an associate or bachelor's degree in ECE, which yields a one-time reward of $1,000, with ongoing payments of $500 or $750 respectively for an associate or bachelor's degree. Additional amounts can be earned for each of the following: k transition, data entry, child formative assessment, child developmental screening, quality improvement, and Environment Rating Scales score. These amounts range from $100 to $500 per item for a total amount available of $2,100 per year. There are also requirements and opportunities for supervisors, aides, and data entry staff. Retrieved from http://www.sdcoe.net/student-services/early-education/Pages/first-5-san-diego-quality-preschool-initiative.aspx.

[143]Early Head Start/Child Care Partnerships-funded projects will receive grants for five years, but the amount of the annual funding is subject to annual appropriations passed by Congress and signed into law by the President. Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/grants/ehs-ccp.

[144]Staff education requirements in the Early Head Start/Child Care Partnerships: Center-based Early Head Start teachers must have a minimum of an Infant-Toddler Child Development Associate (CDA) or a comparable credential or a preschool CDA (or comparable credential) with training in infant-toddler development. Family child care Early Head Start teachers must have previous early child care experience and, at a minimum, enroll in a Child Development Associate (CDA) program, an Associate degree program, or a Bachelor's degree program in child development within six months of beginning service. The family child care provider must acquire the credential or degree within two years of beginning service. Retrieved from https://www.acf.hhs.gov/sites/default/files/ecd/ehs_ccp_101_final_hhsacf_logo_2014.pdf.

[145]The BUILD Initiative is currently examining how states have used their Early Learning Challenge Grants, including workforce activities which will be detailed in Lombardi, J., & Killins, S. (2014-2015). *An early learning challenge for the nation: Lessons learning and the path forward.* See BUILD Initiative website for more information.

[146]For more information about the Preschool Development Grants Competition, see http://www.ed.gov/preschool-development-grants. Two funding sources are available: $80 million in development grants for states with small or no programs, and another $160 million in expansion grants.

[147]Ibid.

[148]Whitebook, M. (2002). *Working for worthy wages: The child care compensation movement, 1970-2001.* Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2010/07/worthywages.pdf.

[149]Whitebook, M., & Eichberg, A. *Finding a better way: Defining and assessing public policies to improve child care workforce compensation.* Retrieved from http://www.irle.berkeley.edu/cscce/wp-content/uploads/2001/01/betterway.pdf

[150]Ibid.

[151]Ibid.

[152]Two examples of approaches not addressed in this paper include tax credits for eligible members of the early childhood workforce, and reimbursement rate increases for home-based providers serving subsidized children that are negotiated through collective bargaining agreements. Louisiana is the only state at this time that provides refundable tax credits to eligible members of the early childhood workforce. In 2013, the credits ranged from $1,573 to $3,146. This approach raises the annual income for recipients, but those receiving the credit must wait until after they have filed their taxes for the previous year to access the credit dollars. Retrieved from http://www.earlychildhoodfinance.org/downloads/2013/Early%20Care%20and%20Education%20Compensation%20and%20Policy%20Options%20for%20Louisiana%20v.%203.pdf. The Service Employees International Union recently negotiated a rate increase for home-based providers receiving subsidies to cover the cost of child care for children of low-income families. Retrieved from http://www.seiu509.org/2014/01/31/child-care-contract-ratified/ and http://www.seiu509.org/2013/12/31/tentative-family-child-care-contract-agreement-now-available-online/. For more information about collective bargaining for home-based child care providers, see http://www.nwlc.org/our-resources/reports_toolkits/getting-organized.

[153]This discussion does not refer to financial incentives to assist or cover the costs of teachers' education and training, policies that have contributed greatly to educational gains among members of the early childhood workforce. Scholarships and similar incentives for low-paid early childhood teachers prevent or reduce the financial burden associated with continued education, such as tuition, books, or taking unpaid time off work in order to pursue professional development. They also potentially contribute to teachers' long-term earning power by increasing their education. They typically do not provide teachers with a higher salary or provide an ongoing increase in income in the form of a benefit, such as health coverage. For more information about the range of financial supports to the workforce, see National Center on Child Care Professional Development Systems and Workforce Initiatives. (2014). *Strengthening the early childhood and school-age workforce: A tool to improve workplace conditions, compensation, and access to professional development.* Retrieved from https://childcareta.acf.hhs.gov/sites/default/files/strengtheningworkforce_tool.pdf.

[154]Some refer to these stipends as bonuses (REWARD program in Wisconsin) or incentives (some counties implementing the CARES program in California). Stipends may also be called wage supplements.

[155]San Francisco's previous wage augmentation program, WAGES Plus, was subsumed into this the new C-WAGES initiative in 2012. Retrieved from http://www.sfhsa.org/4031.htm.

[156]The centerpiece of the T.E.A.C.H. Early Childhood® Program is scholarships to help members of the early childhood workforce pursue more education. Currently the program is operating in 24 states: Alabama, Arizona, Colorado, Delaware, Florida, Iowa, Indiana, Kansas, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, Nevada, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, West Virginia, and Wisconsin, as well as the District of Columbia. WAGE$ currently operates in Florida, Iowa, Kansas, New Mexico, and North Carolina. In addition to WAGE$, another compensation component of the program involves requiring employers to provide a small salary boost to individual teachers upon completion of agreed-upon educational goals. Retrieved from http://www.childcareservices.org/ps/teach_ta_qac/.

[157]Ibid.

[158]To be eligible for a REWARD Wisconsin stipend, a teacher must be employed in a certified or licensed family child care program, licensed child care center, or any Head Start/Early Head Start program; work at least 20 hours per week; work at least five percent of the time in an early childhood classroom, either directly with children or in supervision and support of staff; live and/or work in the State of Wisconsin; and earn $16.50 dollars an hour or less. They must have worked for their present employer for three current and continuous years, or have six years of experience in regulated child care programs, as documented by the Wisconsin Registry. Stipends range from $200 to $900 per year. The program is operated through the Wisconsin Early Childhood Association. Retrieved from http://wisconsinearlychildhood.org/programs/reward/.

[159]C.A.R.E.S. (Compensation and Recognition Encourage Stability) was developed by the Center for the Child Care Workforce (CCW), and co-sponsored by CCW, the California Association for the Education of Young Children, the California Worthy Wage Campaign, and the California State Labor Federation. See California Assembly Bills AB 2015 and AB2012.

[160]Child Care Services Association. (2012). *Working in early care and education in North Carolina: 2011 workforce study.* Chapel Hill, NC: Child Care Services Association. Retrieved from http://www.childcareservices.org/_downloads/research/WorkforceReport2013/WorkforceReport_2013.pdf. See endnote 158 for more information about Wisconsin's program.

[161]Ibid. Ninety-six percent of participants in the program indicate that WAGE$ encourages them to stay in their current programs, 95 percent say that it helps them feel more satisfied with their jobs, and 97 percent say that WAGE$ supplements help ease financial stress.

[162]A quality rating and improvement system (QRIS), sometimes referred to as a quality rating system (QRS), is a "systematic approach to assess, improve, and communicate the level of quality" in early care and education programs (National Child Care Information Center, 2006). Austin, L. J. E., Whitebook, M., Connors, M., & Darrah, R. (2011). *Staff preparation, reward, and support: Are quality rating and improvement systems addressing all of the key ingredients necessary for change?* Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley.

[163]Austin, L. J. E., Whitebook, M., Connors, M., & Darrah, R. (2011). Ibid.

[164]See note 141.

[165]Maryland's QRIS, Maryland EXCELS, provides for credential-based annual bonuses for teachers who work in programs participating in the QRIS, based on their attainment of steps on the state's career ladder. Stipend or bonuses for teachers range from $200 to $1,000, some are one-time only, and some may be received annually. Bonuses for administrators are also available. Funding for this program comes primarily from CCDBG, and the program is operated by the Division of Early Childhood Development, Maryland State Department of Education. Retrieved from http://olms.cte.jhu.edu/olms2/data/ck/sites/217/files/Incentives%20Maryland%20EXCELS%20-%20Center-Based%20Programs%20(2).pdf.

[166]The Pennsylvania QRIS, Keystone Stars, has a program-level award structure to address compensation for teaching staff and directors, known as the Education and Retention Awards. At Levels 2, 3, and 4 of a 4-scale QRIS, the state provides an annual compensation award, through the program, to instructional leaders and teachers, specifically for those with ECE degrees. As of the 2013-14 fiscal year, the director range is $3,090 to $4,120; the bachelor degree-level teacher range is $2,320 to $3,090; the associate degree-level teacher range is $1,545 to $2,060; and the CDA-level teacher range is $600 to $800, all depending on star levels. This program is funded through the PA CCDBG allocation and state general fund. Retrieved from http://www.pakeys.org/uploadedContent/Docs/Early%20Learning%20Programs/Keystone%20STARS/Keystone%20STARS%20Grant%20and%20Award%20Structure%20Overview%2013-14%20.pdf. Programs participating in Keystone Stars also get Merit Awards to assist them in sustaining quality. Programs make local decisions about the use of these funds, but there is an effort to provide guidance and examples to help shape local program decisions. A copy of the guide can be found at http://www.pakeys.org/uploadedContent/Docs/Early%20Learning%20Programs/Keystone%20STARS/Best%20Practices%20in%20STARS%20Financial%20Award%20Spending%20FA%2008.pdf. Merit awards available to programs at certain star levels allow them to decide how to invest the money to promote quality, and offers guidance on using resources for staff compensation.

[167]See note 142.

[168]This section of the report identifies different approaches to the compensation of teachers working in state pre-K programs. The most recent comprehensive summary of salary data across state pre-K programs was based on the 2007-8 school year. Barnett, W., Epstein, D. J., Friedman, A. H., Sansanelli, R. A., & Hustedt, J. T. (2009). *The state of preschool 2009: State preschool yearbook.* New Brunswick, NJ: National Institute for Early Education Research. Retrieved from http://nieer.org/sites/nieer/files/2009%20yearbook.pdf. We note that additional states or cities than those mentioned in this section of the report may pay pre-K teachers working in school-sponsored settings comparably to those in K-12. This is true, for example, in Wisconsin and in the Boston Public Schools. In Boston, salaries for pre-K teachers working in community-based programs are supplemented with private dollars that must be raised each year.

[169]Bartik, T., Gormley, W., & Adelstein, S. (2011). *Earning benefits of Tulsa's pre-k program for different income groups.* Washington DC: Georgetown University, Center for Research on Children in the United States (CROCUS). Retrieved from http://fcd-us.org/sites/default/files/CROCUSworkingpaper17.pdf.

[170]Based on August 26, 2014 correspondence from Alaska through the NAECS list-serve, from a request initiated by Albert Wat of the National Governor's Association.

[171]See http://www.state.nj.us/education/ece/code/. Specific language in the budget guidance for pre-K programs says: "All teachers must receive salaries comparable to those of district teachers with equivalent credentials and experience regardless of whether or not they work during the wrap-around portion of the day. Teachers who work during the wrap-around portion of the day should be compensated in addition to their full preschool teacher salary with DHS and/or other funds in addition to their full preschool teacher salary."

[172]North Carolina, through its Oversight Committee, provides for a graduated scale based on public school teacher salaries. Retrieved from http://ncchildcare.nc.gov/pdf_forms/NCPre-K_Program_Requirements_Guidance_2012-2013.pdf. Specifics are found in Section 6.5. The note states the following: "Minimum and Maximum Compensation Target (Salary and Benefits) Packages based on North Carolina Public School Salary Schedules for Certified Employees - Bachelor's Degree Certified Teacher Salary Schedule 5th Pay Period 2005-2006." For Minimum Compensation Tables for more than 15 years of service, see http://www.dpi.state.nc.us/docs/fbs/finance/salary/schedules/2005-06schedulespayperiod5.pdf.

[173]Georgia provides a chart with specific dollars amounts, by credential level, for pre-K teachers. The dollar amounts are identical for all teachers, regardless of setting; the highest amount is for a certified teacher at $33,000. There is no additional compensation based on experience. Retrieved from http://www.decal.ga.gov/documents/attachments/RatesGovernorsrecommendation2015.pdf.

[174]Pre-k: Frequently Asked Questions for Early Learn NYC Agencies (2014). Retrieved from http://www.nyc.gov/html/acs/downloads/providers_newsletter/june23_2014/UPK_FAQ_for_EarlyLearn_Agencies_6_13_14.pdf.

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